IMPROVING MATERNAL HEALTH USING PARTICIPATORY ACTION RESEARCH WITH WOMEN LIVING IN RURAL PAPUA NEW GUINEA

Submitted by Nina Joseph
RN, RM, Dip.Ed. (University of Papua New Guinea, Goroka Campus),
Ba (Nursing), MS (Nursing, Flinders University, Australia)

A dissertation submitted in fulfilment of the requirements for the award of Doctor of Philosophy in Nursing

January 2013
School of Nursing and Midwifery
Faculty of Health
The University of Newcastle, New South Wales, Australia
Statement of Originality

The thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to this copy of my thesis, when deposited in the University Library, being made available for loan and photocopying subject to the provisions of the Copyright Act 1968.

8th January, 2013

Signature of Candidate

Date
Dedication

This thesis is dedicated to my late parents, Susie and Joseph Aite. They loved me unconditionally and inspired me to reach my goal in life. Their unwavering confidence motivated me to persevere in this work despite their untimely passing during my PhD journey.

To God Be the Glory.
Acknowledgements

I am indebted to many wonderful people. I offer my sincere gratitude to the women who participated in this study. I thank the four participants who accompanied me through Phase One of this study set in Newcastle. Their devotion, enthusiasm and support for me as a novice researcher were invaluable. We built relationships which are ongoing. In Lomakunauru village, Papua New Guinea (PNG), I researched alongside ten women who found time to share their childbearing experiences with me. Listening to their stories was humbling and insightful. I thank these village women for sharing their ideas to improve maternal health. Further I thank the thirty or more village women who joined the group meetings. I sensed that together we can make this world a better and safer place for the birth of our children and grandchildren.

My aim was to explore ways to improve maternal health in PNG and this study was to be a community development project. I enrolled as a PhD candidate in Nursing and not in Midwifery although I am a midwife. I wish to acknowledge Professor Tina Koch’s extensive knowledge of participatory action research (PAR) which allowed me to explore ways I could research alongside women.

I sincerely thank my supervisors Professor Isabel Higgins and Professor Tina Koch for their ongoing dedication and support to me. You have walked alongside me throughout the duration of three and half years of this study. You demonstrated not only dedication, support, guidance, and encouragement, but you also believed in my ability to conduct the study and complete it successfully. With determination and outstanding research skills from both of you, you have worked tirelessly to bring this study to a conclusion. I am deeply moved by your support. Thank you for believing that my aims to improve maternal health were achievable.

To the following organisations and individuals; no words can adequately measure my gratitude towards your great assistance:

The Australian Government, via AusAID for funding this PhD study through the Australian Development Scholarships (ADS) in conjunction with the PNG Scholarship team. The University of Newcastle, Australia, in particular, the staff of the: School of Nursing and Midwifery; administration staff, Graduate Office, Counselling Services, International Office staff, IT staff, Security and Library namely Debbie Booth for invaluable assistance which has made my student life at the University of Newcastle a rewarding experience. The Pacific Adventist University (PAU) in PNG staff and students, New Ireland Provincial Administration, Kavieng General Hospital staff, Pr Nelson Gaah and staff of the Kavieng Seventh-Day Adventist Mission, Murat Local Level Government, My family and relatives whose dedication
and unwavering support encouraged me to pursue my study despite numerous challenges, PNG-Newcastle friends and many other colleagues for friendship and encouragement, Dr Nancy Buasi, Dr Jacques Boulet, Gwenda Sanderson, Jane Groeneveld, Rhonda Waiyo and family, Hennie Kiruwi and family, Dr Lalen Simeon and family, Dr Jennifer Litau and family, Leah Ongugo, Roven Clark and family, Rosaline Lapan-Baker and family, Ruth Colman, and Roven Clark and Stuart Korova for verifying language translations, Barry Walters and Ruth Colman who willingly edited this manuscript.
Speak up for those who cannot speak for themselves,

For the rights of all who are destitute,

Speak up and judge fairly,

Defend the rights of the poor and needy.

(The Bible: Proverbs 31:9 New International Version, 2007)
Contents

Statement of Originality .................................................................ii
Dedication ....................................................................................iii
Acknowledgements ......................................................................iv
Acronyms ....................................................................................xiii
Glossary ......................................................................................xv
Abstract ......................................................................................18
Chapter One : Introduction to the Study ........................................21
Background ..................................................................................22
Chapter Two : Context for the Study ..............................................39
Introduction ................................................................................40
Re-orienting Primary Health Care in PNG .....................................45
Participation in Primary Health Care ...........................................47
  The Principles of Democracy ......................................................48
PNG Political System ..................................................................48
Health care in PNG .....................................................................51
Chapter Three : Literature Review ................................................58
Introduction ................................................................................59
An overview of maternal health ....................................................59
Safe Motherhood ........................................................................60
Maternal mortality ......................................................................60
  Monitoring maternal mortality ................................................61
  The direct causes of maternal mortality ..................................62
  Maternal mortality is preventable .............................................62
Safe motherhood and Advocacy ..................................................63
Family Planning ..........................................................................64
Abortion Services .......................................................................65
Antenatal care ............................................................................66
Skilled birth attendants ..............................................................67
  Traditional birth attendants .....................................................68
  Free maternal health care services .........................................70
Emergency obstetric care in acute settings ...................................71
Community-based maternity interventions ...................................72
  Health programs for adolescents .........................................72
  Education of girls ..................................................................72
  Health information for couples .............................................73
  Malaria control programs ......................................................73
  Birthing kits ..........................................................................74
  Reducing poverty ....................................................................74
  Water and sanitation ..............................................................74
  Nutrition and dietary supplements ........................................75
Conclusion ....................................................................................75
Chapter Four : Participatory Action Research: A justification of my chosen methodology 76
Introduction ................................................................................78
Participatory Action Research ....................................................78
Community-based participatory research (CBPR) in health ..........79
Why I have used Participatory Action Research methodology in this study ..................................................81
Koch and Kralik’s (2006) approach to Participatory Action Research ........................................................................83
Conclusion ....................................................................................86
Chapter Five : The Research Process .............................................88
Introduction ................................................................................89
  The Participatory Action Research Process ...............................90
Phase One: Apprenticeship in Participatory Action Research, Newcastle ..................................................91
Safety in the field, Newcastle ......................................................91
Research Questions .....................................................................92
Objectives ...................................................................................92
Chapter Nine: Lomakunauru Village: Participatory Action Research Group

Introduction ........................................................................................................... 248
Time frame of Phase Two study ........................................................................ 249
Negotiating support for the study ..................................................................... 249
Preparation ............................................................................................................ 250
Factors that shaped women’s decision to attend Participatory Action Research Groups ... 251
Facilitation ............................................................................................................ 251
Setting the scene at the first Participatory Action Research group meeting ........ 251
Ethical considerations during Participatory Action Research group meetings .... 251
Setting group norms: rules made by participants ............................................. 251
Creating maternal mortality awareness during first PAR meeting .................. 251
Participatory Action Research Group Discussion .......................................... 252
Build a Local Health Centre .............................................................................. 252
Appointment of ten traditional birth attendants .............................................. 252
Researcher reflections ....................................................................................... 252
Group dynamics .................................................................................................. 253
Conclusion ............................................................................................................ 253

Chapter Ten: Discussion .................................................................................... 264
Introduction ........................................................................................................... 265
Antenatal care ...................................................................................................... 266
Family Planning .................................................................................................... 266
Skilled birth attendant ....................................................................................... 266
Trained traditional birth attendants ................................................................... 266
The Newcastle-PNG PAR group ...................................................................... 267
Revisiting Lomakunauru village ...................................................................... 267
Practical Safe Motherhood Issues ................................................................. 267
Safe Motherhood: an ideal antenatal care program ....................................... 267
Practice issues: Antenatal care ....................................................................... 267
Practice issues: intrapartum and postpartum care .......................................... 267
Good practice: positive outcomes of pregnancy and birthing ....................... 267
What did the villagers want? ............................................................................ 268
Women requested information on pregnancy and birthing ......................... 268
Training traditional birth attendants .............................................................. 268
Health Post: Is it a possibility in this village? ................................................. 268
What can be done to improve maternal health? ............................................. 268
Linking this study within the larger PNG health sector .................................. 269
Improving PNG maternal health with external support .................................. 269
List of Figures

Figure 2.1: Papua New Guinea ................................................................. 53
Figure 7.1: Villages of Mussau Island ......................................................... 148
Figure 7.2: Lomakunauru Village showing the church in the foreground and community buildings in the background ................................................................. 150
List of Tables

Table 8.1: Participants’ details............................................................................................................. 185
Acronyms

ADB - Asian Development Bank
ANG - Air Niu Gini
AusAID - Australian Agency for International Development
EmOC – Emergency obstetric care
GoPNG - Government of Papua New Guinea
HREC - Human research ethics committee
MCH - Maternal and child health
MDG - Millennium Development Goal
MLLG – Murat Local Level Government
MMR – Maternal mortality ratio
NDOH - National Department of Health
NIP - New Ireland Province
PAR – Participatory action research
PAU - Pacific Adventist University
PHC – Primary health care
PHC – Pakasi health Centre
PNG - Papua New Guinea
PPH - Postpartum haemorrhage
UK - United Kingdom
UON - University of Newcastle
UPNG - University of Papua new Guinea
USA – United States of America
SDA - Seventh-Day Adventist
TBA- Traditional birth attendant

UNICEF- United Nations Children Fund

UNFPA- United Nations Population Fund

WHO- World Health Organisation
Glossary

Abortion: Cessation of pregnancy (expulsion or extraction of embryo/foetus) before 22 weeks of pregnancy or foetus weighs less than 500g. Abortion may be spontaneous (due to natural causes, such as miscarriage) or induced (made to happen).

Childbearing Years: The reproductive age span of women, assumed for statistical purposes to be 15-44 or 15-49 years of age.

Community Mobilization: Community mobilises on deliberate, participatory processes to involve local institutions, local leaders, community groups, and members of the community to organise for collective action toward a common purpose. Community mobilization is characterized by respect for the community and its priorities areas.

Emergency Obstetric Care (EmOC) — Responds to unexpected complications such as haemorrhage and obstructed labour with blood transfusion, anaesthesia, and surgery. It does not include the management of problem pregnancies, monitoring of labour, or neonatal special care.

Maternal Mortality: The death of a woman while pregnant, during delivery or within 42 days (six weeks) of termination of pregnancy, irrespective of the duration and the site of pregnancy. The cause of death is always related to or aggravated by the pregnancy or its management; it does not include accidental or incidental causes.

Maternal Mortality Rate: The number of women who die while pregnant or during the first 42 days following delivery per 100,000 women of reproductive age in a given year for any cause related to or aggravated by pregnancy, but not from accidental or incidental causes. The rate reflects the maternal mortality ratio and the fertility rate; it is influenced by the likelihood of becoming pregnant and by the obstetric risk.

Maternal Mortality Ratio: The ratio reflects the risk women face of dying when she is pregnant. The number of women who die during pregnancy or during the first 42 days after delivery per 100,000 live births in a given year from any cause related to or aggravated by pregnancy, but not from accidental or incidental causes.

Number of maternal deaths in a year per (100,000) live births in a year.

Midwife: A midwife" is a professional who has successfully completed the prescribed course of studies in midwifery and has acquired proficiency or the requisite qualifications to be registered and/or legally licensed to practice midwifery. S/he is able to give the necessary supervision, care and advice to women during pregnancy, labour and the postpartum period, to conduct births on her own responsibility and to care for the newborn and the infant. Such care includes preventive measures;
detection of abnormal conditions in mother and child, the procurement of medical assistance and the execution of emergency measures in the absence of medical help. She has an important task in health counselling and education for the woman and the family and community. This work should involve antenatal education, preparation for parenthood and areas of gynaecology, family planning and childcare. She may practice in hospitals, clinics, health units, domiciliary conditions or in any other service." (Joint ICM/FIGO/WHO definition, 1992).

Obstetric emergency: A severe, life-threatening condition that is related to pregnancy or delivery that requires urgent medical intervention (EmOC) in order to prevent the likely death of the woman. An obstetric emergency: May occur any time during a pregnancy, delivery or up to six weeks after childbirth may occur suddenly without any warning. It requires urgent action to refer a woman immediately to the nearest referral unit for further management.

Public health: Is "the science and art of preventing disease, prolonging life and promoting health through the organised efforts and informed choices of society, organizations, public and private, communities and individuals.

Postpartum Haemorrhage: The genital tract blood loss of 500 ml or more postpartum.

Primary postpartum haemorrhage is all occurrences of bleeding within 24 hours postpartum. Secondary postpartum haemorrhage occurs after 24 hours postpartum and up to 6 weeks later.

Reproductive health: A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity in all matters relating to the reproductive system and to its functions and processes. Reproductive health means people have satisfying sex lives and that they have the capability to reproduce and have the freedom to decide if, when and how often to do so. Implicit in this are the right of men and women to be informed of, and to have access to safe, effective, affordable and acceptable methods of family planning of their choice, as well as other methods of their choice for regulation of fertility which are not against the law, and the right of access to appropriate health-care services that will enable women to have safe pregnancy that results in positive outcomes not only for the woman and her newborn but the entire family.

Safe Motherhood: The goal of safe motherhood is to ensure that every woman has access to a full range of high-quality, affordable sexual and reproductive health services, especially maternal care and treatment of obstetric emergencies to reduce death and disability.

Traditional Birth Attendant (TBA): A traditional birth attendant is a person (usually a woman) who assists women especially during childbearing process. One initially acquired her skills by giving birth herself or through apprenticeship with other TBAs. She lives in the community in which she practices.
Unsafe Abortion: It is a procedure for terminating unwanted pregnancies usually by lay persons in unhygienic environment.

Vacuum extraction is a medical intervention used by doctors and trained midwives to assist difficult and prolonged second stage of labour.
Abstract

Papua New Guinea (PNG) has one of the highest maternal mortality rates in the Pacific Region. My thesis is that safe birthing is a human right and this has been denied to many PNG women. My research question: ‘What can be done to improve maternal health in PNG? is in line with Global Millennium Development Goal 5 and favoured as a community development research approach which allowed me to research alongside fourteen women.

Participatory action research (PAR) as articulated by Koch and Kralik was conducted in two phases. Phase One was an apprenticeship in PAR process conducted in Newcastle under the guidance of the PhD supervisors. Storytelling and facilitating group processes were data generation and analysis strategies learned. The objectives for Phase Two were: (1) to collaboratively explore maternal health, examine and describe factors and contexts that are associated with maternal mortality in Lomakunauru village, PNG; and (2) to build awareness about maternal mortality through the PAR process and alongside village women and collaboratively decide on action and/or reform strategies.

Fourteen women told their stories about pregnancy and birthing: four English speaking PNG women living in Newcastle (Phase 1) and ten Lomakunauru village women speaking their own languages (Phase 2). The student researcher is indigenous to this area and speaks several local languages. Stories were transcribed verbatim and each story was returned to the women for their validation and ownership.

Storied data were analysed and commonalities in village women’s experiences were revealed. Women were voiceless in their birthing process. Rural populations are thinly spread and health services are located many kilometres away, often across open seas. Hence the distance a woman needed to travel to gain access to maternal care was one of the major problems recognised. Lack of support from husbands during birthing was common and not surprising in patriarchal communities. Women’s preference for gender specific care was noted. Nurses assisting women during the intrapartum process were portrayed as perpetrators of negligence and/or abuse. Spiritual devotion and trust in God during birthing gave women strength. In this Seventh Day Adventist village abortion as a birth control measure was unacceptable.

Village women were brought together to discuss ways to promote maternal health. Awareness was raised about the problems associated with maternal mortality. Resultant action was that women wanted to build an accessible Health Post in the centre of the village. The Health Post would be run by traditional birthing attendants (TBAs). Ten women in this PAR group volunteered to complete TBA educational preparation.

This study shows what is possible when women are given a voice. Grass roots organizations led by
women are likely to be sustainable in the promotion of maternal health. Educational preparation of TBAs is one of the recommendations given because professional registered midwives are not affordable in PNG context.
Chapter One: Introduction to the Study
Background

In 2007 I was awarded a PhD scholarship from AusAID to study in Australia. Prior to that, I was awarded a Bachelor of Nursing in 1998, then a Master of Nursing in 2003, both at Flinders University of South Australia, Australia. As a woman from PNG, I wanted to explore ways to improve maternal health in women in PNG as I have known many of them who died in childbirth. I asked myself, ‘Which research methodology would enable me to hear the voices of women regarding their childbearing experiences?’ I sought a methodology that would allow me to be socially and culturally responsive to women and to research alongside them. I wanted an approach that was consistent with the specific cultural practices I would find in the villages of PNG. I required a research process that was democratic, culturally sensitive and reciprocal, where researchers and participants could share experiences and learn from each other. I searched for a methodology that would also allow the PNG women to suggest actions that could improve their own health. Further, I wanted to learn about approaches to community development. Therefore, I selected PAR as the most suitable methodology that also allowed me to use storytelling as part of the process. This approach is consistent with the oral traditional way whereby people of PNG, in particular, women communicate knowledge, understanding and their traditional cultural practices.

This thesis is presented in multiple voices: my formal academic writing in the review of the literatures and methodology and my personal story telling voice are heard in this work. Most importantly the voices of PNG women have been privileged. In the past they have not been heard.

I recognise that there are many versions of PAR and that the action research ‘family’ includes a whole range of practices and approaches, and the assumptions underpinning these are diverse in political, psychological and philosophical orientations (Palshaaugen, 2006). I engaged with those texts and made a selection congruent with my study context. I sought a methodology that could stimulate reform and/or improve PNG’s maternal health and involve women in a collaborative approach so they take control of their own decisions about pregnancy and childbirth. Therefore, my project has a community development focus.

The research study

PNG has one of the highest maternal mortality rates in the Pacific Region (Mola, 2009). As an indigenous woman from PNG and as a PhD candidate, I proposed to conduct a PAR study with local village women living in PNG. The research question was: ‘What can be done to improve maternal health in PNG?’

This study was conducted in two phases: the first phase of the study was an apprenticeship in Koch and Kralik’s (2006) PAR methodology while I was located in Newcastle, Australia for twelve months;
in the second phase I researched alongside village women in Lomakunauru, NIP, PNG for nine months in 2010.

The Phase One objectives were:

(1) To research with PNG women living in Newcastle and collaboratively explore ways to improve maternal health, with individual women initially in one-to-one interviews, and then collaboratively with this same group of women and supervisors.

(2) To engage in an apprenticeship phase using PAR. This meant I practised data generation using the ‘look, think and act’ framework, concurrent analysis, feedback cycles, and facilitating and managing PAR group dynamics towards action.

(3) To consider what had been learnt during objectives 1 and 2 and identify success and constraint indicators in using PAR as a community development strategy in one PNG village.

While researching alongside women in my village in PNG, the objectives for Phase Two were:

(4) To collaboratively explore maternal health, and to examine and describe factors and contexts that are associated with maternal mortality in Lomakunauru rural village.

(5) To build awareness about maternal mortality through the PAR process and collaboratively decide on reform strategies.

These objectives guided the research plan, and I will show how they were achieved throughout this thesis. But first, I will share my personal background which in part sets the stage for the study. In Chapter Two I will expand on the larger global maternal health context, and the village local context, in preparation for reading Chapter Eight, in which women’s entire stories about one pregnancy and birthing event will be given. My position is that researcher neutrality and/or objectivity is impossible when undertaking PAR. I will reveal my interests, values and beliefs and will be taking you inside my village to support this claim. I start by sharing my story since I was a small child.

**My personal background story**

I was born at Lomakunauru Village, Mussau Island, New Ireland Province (NIP) in PNG, and nearly fifty years later this location became the setting for this participant-led action research project. As indigenous to this island, I speak the local language and I am accustomed to traditional village life. Not much has changed in village life in the intervening years. There are many PNG villages just like this one. I have since lived in many rural villages and provincial towns in PNG, and more recently in the capital, Port Moresby. I held a senior academic teaching position in the School of Health Science, Pacific Adventist University (PAU) before taking up studies in 2007.
The main focus of this section is about my personal experiences and values that have shaped my reason for conducting this research study: reducing maternal mortality and improving maternal health in PNG using PAR. What follows is my story about learning to care for others, my determination to have an education, becoming a nurse and then a midwife and striving for higher education (PhD) so that I could make a difference.

In the Lomakunauru community, most people are related either as part of my extended family network or as kin. The Melanesian society and culture continues to recognise the family unit as the basis of community solidarity and gives recognition to and acceptance of every individual within each family circle. Unlike in developed countries where families are often limited to nuclear units, comprising father, mother and the biological children, in our culture large extended family kinships and relationships are enmeshed. As an insider researcher in the village, my family played a pivotal role in providing support for me during the field study. I will explain in a later section how my family worked together to make copra, the sale of which was the family’s main income. Collaboratively we grew all our own food, working together as an extended family group, and this was not unusual as most families worked together on copra or other crops.

As a child attending the local village school I learned to speak the English language. The year was 1970 and I was walking home from school one afternoon when a local resident invited me to eat some food. He was a distant male relative who had no other close family in Lomakunauru village. His wife and son had died many years ago. He lived alone in the hamlet near the school. Being hungry I savoured the food, thanked him and left for our hamlet. A few days later, again walking home from school, I noticed that he was very sick with malaria. When I arrived home that same afternoon, I informed my parents about his illness and I suggested that we bring him to our house to look after him. They agreed. My father paddled across the water to his place and brought him to our house. When he had improved, my father built him a small house next to our family house. He was well cared for by my parents and relatives.

My grandma (father’s mother) was a very kind person. As a nine-year-old I slept with her in a small village house made from bush materials. Sometimes one of my aunts slept with us. Every afternoon after school I washed her behind our house with water from the communal tank. She appreciated my help with maintaining her hygiene. I touched my grandma’s skinny frail body. I was not ashamed but instead I felt pride that I could help her. Grandma lived with chronic obstructive lung disease. She had been referred to Nonga hospital, Rabaul, East New Britain province (ENBP), PNG years ago where she was diagnosed and treated for this condition. The main cause of her disease was tobacco smoking. In the early part of the 20th century villagers smoked and chewed betel-nut, prior to the arrival of Christianity in 1931 on Mussau Island. Although most villagers stopped smoking, the effect of the tobacco took its toll on their health as it did on my grandma.
The last time that grandma and I talked was on a bright late January morning just before my cousins and I left for a boarding school in Boliu in 1973. She was sitting in the separate cook house roasting banana over the wood fire. I approached her to say goodbye. She offered me a few bananas and said, ‘My grandchild, take and eat these bananas. One day soon you will receive news that I have died’. She died in March, 1973. My father paddled to Boliu and informed us. Then we travelled home to pay our last respects to her. We mourned for grandma before the burial.

Gaining an education

As a small girl growing up in a rural and remote village of Lomakunauru, I learned about being independent. At the time, I did not understand this trait and failed to appreciate the influence that it would have on my later life. One of the main examples of learning to be self-reliant or independent is that I was allowed by my parents to make small gardens near our house so we could plant sweet potatoes and other crops. Although most of the time the crops did not yield as we had hoped, we were not discouraged as we enjoyed clearing the land and planting seeds or cuttings from sweet potatoes. And when I started attending a nearby community school, we were expected to reside in the girls’ dormitory (similar to the boys’). I was happy to live in this dormitory, even more so when my father built me a bed. There was a lack of nourishing food in this school setting. Back then the hamlet where my family lived was furthest from school, so I stayed at school after class. Sometimes I found some food to eat from my parents’ garden some kilometres away. However, most times I went to bed without eating. As a result, I was hungry and weak the next morning, perhaps from hypoglycaemia. My whole body could not move out of my bed so I was absent from class. The teacher always asked for me and when he learned that I was in bed, he sent one of the girls to tell his wife to give me food. After eating, I attended class. This situation happened more than once, and I have a vivid memory of it. The problem could have been prevented had I visited my ‘big mama’ (my mother’s eldest sister) and her family, who lived about fifteen minutes from the school. Somehow, I did not want to cause any inconvenience to them so I stayed in school.

After completing grade four at the local primary school, my classmates and I were promoted to attend grade five at Boliu boarding school, a church-run facility about ten to fifteen kilometres away. On my final day in the community school, I took a small piece of frangipani cutting and planted it near our house. This was to be a memory of attending the local primary school. Whenever I see the frangipani flower, I feel a sense of satisfaction that this is where my formal education took root.

Before I started attending primary school, my father received a blackboard and some slates from the Boliu school headmaster. He used these to teach me at home. In this way, I had the advantage over other village children of spelling and reading a few basic words in English before attending school. My father was very keen to see all of us children excel in school, not just his biological children but
all of the children from an extended family. He always urged the entire community to support its young people to have a good education. My father built a copra-dryer house and started making copra with the help of mother, aunts, uncles and all the children. A few years later he took a loan of K300 (equivalent to $150-00 Australian dollars) from the PNG Banking Corporation. He built a better copra-dryer with the building material he purchased with the loan money. He was able to repay his loan soon after. During his life time, he had three copra-dryers and two outboard motors to use in making copra to gain enough income for our school fees. His wonderful support for my studies continued during this study in 2009-2010. His untimely death occurred in August, 2010. I loved and miss him greatly. I know he would have been delighted with the work I am doing.

When I attended Boliu School I was able to make a bigger garden. I planted sweet potatoes, taro and banana. During the school holidays, my parents helped me to plant one of my garden plots which had a very good yield. I was proud to harvest the food. This time I did not feel hungry so I was not absent from school as in the past. I loved school even though I was punished twice for speaking in our local language. One of the school rules was to speak English inside and outside the classroom. When I broke this rule I was requested to clean the road with some other students as our punishment. Another rule was that we should eat in the mess using our own plates and cutlery. One of my cousins borrowed and lost my plate. For a whole week I did not eat in the mess but was fed by my friends.

When I completed grade six, I brought a banana sucker which I planted under the coconut trees near my grandma’s house. The banana has continued to produce until 2010. I wanted to preserve this beautiful plant as a reminder of my schooling in Boliu. I uprooted the banana sucker and planted it in another spot near the house as I want the banana to thrive for as long as it can. It reminds me of the wonderful schooling experience that I had as a student at Boliu between 1973 and 1974.

Being the eldest child in the family, I often accompanied my parents to the garden. I loved to help my mother to clear the land for planting new seedlings or banana suckers or to uproot weeds. She appreciated and complimented the work which I did with her. Then in primary school and later in high school others also complimented me on my gardening work. For instance, when we cleaned the school yard and flower garden at the local village school, the caretaker remarked that I was a better worker than other students. He said that I removed all the weeds well but some students did not. I was embarrassed by his comment. But afterwards he approached my father and mentioned how good my work was. My parents were also pleased with the comment and encouraged me to work diligently.

When I enrolled at Boliu School, I was selected to help the headmaster’s wife by doing house chores. The main reason I was chosen, it was alleged, was that I spoke better English than all the other girls. I did not speak fluent English though as we were all learning to speak and write in English, a third foreign language to be learned apart from the local vernacular and Tok Pisin. One day, the headmaster’s wife told me that she was missing some of her under garments. She announced that
someone had stolen these from the clothes line where I normally hung them after washing them. I denied stealing these. It is not clear whether or not she believed me. Anyway, a few days later the culprit was found. I was grateful that my reputation was cleared.

From 1975 to 1978, I attended Kambubu High School in East New Britain Province, (ENBP) PNG. This institution is located many kilometres outside of Rabaul and Kokopo townships. The study days at school were good in some respects, while at times life was not as comfortable for some of the students, including myself. I will share a few of the challenges that I personally encountered. We had two meals a day: ‘brunch’ at ten in the morning and dinner at five in the afternoon. The main staple food was boiled or steamed yellow cassava. We ate this with some green vegetables but we did not have protein like fish, chicken or nuts. Peanuts were grown but these were not allowed to be eaten by students. We rarely ate fruits although there were fresh banana and pawpaw grown on the farm. There was a chicken shed where eggs were laid but these were sold to the shops in Rabaul. On the weekends, especially Sundays, most students including myself went fishing at the nearby reef. The few fish caught supplemented our protein requirement. The limit of two meals a day meant that we were often hungry and searched for ripe pawpaw or dried coconut to kill off hunger pangs. Life was tough but we were not aware of the right to have three balanced meals a day. We never questioned authorities about eating two meals only a day.

We were expected to work every day after school, planting and harvesting food. Saturday was the Sabbath, a day of rest and worship in our religion, Seventh Day Adventist (SDA). On Sunday mornings we worked for half a day only. The afternoon was spent as a leisure time to do personal chores or play sports.

I often used Sunday’s leisure time work in my small garden plot near the girls’ dormitory where I grew some vegetables like cucumber, Chinese cabbage, sugarcane and banana. Some weekends I helped a family relative with their gardening. We were able to barter and so we could eat better balanced meals including fish. At home in the village I did not go fishing because it was men’s work. But at boarding school I learned to fish. It was exciting. One afternoon immediately after work, I went by myself to the beach and caught two big fish with a fishing line. After cooking the fish, I shared some of it with one of the female teachers who was sick. She was grateful for that.

The most important thing that I am delighted to share is how I managed to survive financially in school and further my education. My parents, like most villagers, were poor and I had very little money to buy basic items like laundry powder or school stationery. Most times I had two kina, equivalent to 50 to 80 Australian cents. I sold cooked rice so I could earn some money for personal items. I made necessary preparations on the previous afternoon or evening. That included collecting firewood and dry coconut, and weaving coconut baskets. Then I filled the coconut baskets with
uncooked rice. Early the next morning, I cooked the rice in the girls’ kitchen. As soon as the other girls woke up, I announced to them, ‘Rice for sale for just ten toea (cents).’

In a few minutes the rice was sold out. I made about K0.50 to K0.60 (30 Australian cents) profit. I did this whenever I needed money to buy basic necessities including toilet paper and laundry soap.

After completing grade seven, instead of going home for the holidays I stayed with a relative near Kambubu High School (KHS) and worked for my tuition fees. The same practice was repeated after completing grade nine. I wanted to pay for my tuition in order to ease the financial burden on my parents. Although the money earned was quite small, I was motivated to earn my tuition. Back in the village, every school holidays, my parents and close family made copra by cutting the long grass under the coconut trees. We helped our parents, aunts and uncles who took an active role in helping us make enough money to pay tuition fees. That was our contribution to our family. We paddled in a large dugout canoe to other coconut tree sites around Lomakunauru village or to Loaua Island to make copra. Everyone worked very hard. My father, in particular, encouraged all of us to study hard and behave appropriately in school so we could reach high school and then go elsewhere to study and work. We were still allowed to rest or play though at least for a day after we completed our tasks. This made school holidays fulfilling for school children.

In KHS, two of the expatriate teachers complimented me for working conscientiously both inside the classroom and on the campus. One of my teachers wrote in my academic assessment form: ‘Nina is a very good worker and can go a long way if she maintains this.’ I was pleased with this compliment. As a result, I enjoyed school and tried my best to accomplish tasks that were given to me. Unfortunately, I was often sick with chronic malaria, an illness that is prevalent in PNG. I missed many classes. Consequently, I could not proceed to grades eleven and twelve. Yet I was determined to become a nurse so I applied to and was accepted by one of the nursing colleges. It was exciting to be trained as a nurse.

**Village values: reciprocity**

In my village reciprocal relationships are highly valued. Many people are good at sharing their things with others including food. Most learned to share their play toys when they were small. As a young child my mother always sent me to share food with our neighbours. Generally, many people accept food as a token of love and caring. In the Pacific Island cultures, if someone offers food and you accept it, the giver is pleased with you and is likely to share something else with you in future. But if you refuse to accept the food it is viewed as a disgrace or as a rejection of the giver. This was to be an important consideration when researching in my village.
**Personal values**

As I was growing up, my mother in particular taught me to be true and honest. This applied to everything that I said and did. If I made a mistake, I had to admit my wrong and confess it rather than cover it up. Moreover, I was instructed to do my chores faithfully even though no one was watching me. I tried to follow these instructions but sometimes I failed and was punished for disobeying the command. For example, I was caring for my baby sister, and when she was asleep, I called my other younger sister and we went to collect dried coconut leaves. I wanted to burn the dried shrubs and leaves with these in my small garden near the house. We were still in my garden when a big lizard went into our house and bit my sister’s leg while she was sleeping. When my parents returned from the garden that afternoon, my mother gave me a good spanking for disobeying her. I was taught to avoid stealing, swearing, gossiping and telling lies, to name a few transgressions, as these were believed to be morally wrong. As a result, I am conscious of upholding integrity in my life, being truthful and honest in what I say and do. I like to be known as a reliable person, someone who is trustworthy.

I am a practising SDA. This is the prime value in my life. In everything that I think about and do, I always depend upon the divine leading and guidance of the Lord. My trust and hope in God started when I was quite young. For instance, one morning I was walking to school all alone. The route passed through a family home which had several fierce dogs. These attacked people unless the owners were home to stop the dogs. The dogs were not chained and there was no fence around the yard and the house. As I approached the house, I prayed and said, ‘Please, Jesus, stop the dogs from attacking me so I can walk safely to school.’ Then I walked past the house. Although the dogs were lying under the house, they neither barked nor attacked me. My prayer was answered. Personal experiences like this inspire and motivate me to press forward even though many times I have experienced despair and discouragement. Hence, my trust in God continues to grow deeper each day.

**Education for girls**

In my village I noticed that boys were given preferential treatment and that they were granted a basic education. My uncle told his daughter that she would complete grade six and then stay home. Her brothers, on the other hand, could pursue their education to high school. True to his word, his daughter, although intelligent, stayed home. At that time, the local community viewed girls’ education as a waste of resources by the parents. The group had no hope of advancing beyond primary school. Then it was expected that they would get married and raise a family at home. Today things have changed for the better, so some girls have the same educational opportunities as boys.

My father, however, although aware of the villagers’ preference for educating boys, encouraged all of us, four sisters and one brother, to go to school. He himself had not gone to a high school but he
wanted all of us to reach out and acquire an education. A trained teacher from Port Moresby taught at a primary school and supported my father’s wish that all his daughters go to school. He assured him that more girls in some parts of PNG, including Port Moresby, were attending school. He encouraged him by saying that someday, he would be proud to gain a reward from his educated daughters. He predicted that when we had our own children, they would have a better education than ours. This would ultimately lead to a better standard of living. This was his goal in life. Most of us ‘caught’ his love for education. Today, our offspring are reaching tertiary level education, something that he would have been proud of.

Becoming a nurse

Working as a nurse gave me satisfaction most of the time, especially when clients recovered from their illnesses. Unfortunately, there were some whose medical conditions were serious and they died. I was affected emotionally and psychologically when clients died. But during our nurse training one of our tutors emphasized that nurses do not cry for clients who die. In other words, nurses’ emotions must be kept under control. This was very difficult to do in real life situations. I often cried quietly in the side rooms of the hospital ward, away from the weeping families of the deceased and the staff. Then I washed and dried my face to hide my sorrow.

I loved being a nurse and always did my best to offer the best possible care to my clients. My clients were from all walks of life: the child in the paediatric unit, adult males or females in the surgical ward or a woman in the labour ward. These all received committed attention. Many times I improvised equipment to be used on clients in these resource-poor settings, as specific items were often not available.

One of the highlights of my nursing career occurred in my second year of training. My mother was referred by the Palakau Health Centre, Mussau, to the Kavieng hospital due to complications of the intrauterine device (IUD), a contraceptive method. For nearly ten years, the health centre staff assured her that the IUD was fine inside her body. Unfortunately, the IUD embedded firmly into the endometrial wall of her uterus. This imposed a risk of perforation. So she had a total hysterectomy at Kavieng hospital. When I arrived at the hospital, she smiled weakly and said that she was delighted I had visited her. She had had a major operation. But hospital staff just checked her vital observations. Nobody bothered to provide bodily care which she needed most. It was more than forty-eight hours post-surgery. She was lying on the soiled bed linen. I sponged her in bed. This act embarrassed her. She apologised to me for touching and providing personal hygiene to her. I assured her that being a nurse, it was my duty to take good care of her. Then she said to me, ‘Natugu (my child), I am glad that you are a nurse and have helped me. Otherwise, without you, my personal hygiene would be neglected until I was discharged from the hospital.’ It was an honour to help my mother when she
needed me most. After she returned home she shared the incident with her best friend. The friend
encouraged her daughter to become a nurse. Today she is a registered paediatric nurse in PNG.

My determination to become a nurse started when I was a young child. When my mother went to the
health centre, I tagged along simply because I admired a beautifully dressed and dedicated nurse who
looked after the sick people. Choosing midwifery, however, materialised after I had my own first
baby at a rural health centre and suffered from postpartum haemorrhage. At the time, I also assisted at
several births because the nursing officer on duty lived in an adjacent village and was not available for
night duty. As I reflected on the situation, I realised back then that there was an urgent and desperate
need for well-trained midwives to assist the poor rural women who are disadvantaged by a lack of
trained available support.

As a second child of seven children, my mother shared stories of her own childbearing experiences
with me. She had often suffered from complications as she gave birth to my other siblings. Her first
newborn baby boy died at the rural health centre within a few short hours of birth. The cause of his
death is unknown. During the third pregnancy, she was referred to Kavieng general hospital because
she was anaemic. After giving birth, she fainted. The relatives were summoned and they donated
blood. She had a blood transfusion that saved her life. In 2007, at the age of seventy-three, she
became ill on a Friday morning and was treated with antimalarial drugs in the village by a retired
health worker. The next day, Saturday, her condition deteriorated so she was taken to the health
centre. She died there a few hours later. The cause of her death is also unknown although malaria was
a likely cause. She died shortly after I started this PhD journey.

Part of my mother’s oral history relates that her own mother (my grandmother) had died from
postpartum haemorrhage after she gave birth to my mother in the village. There are many other stories
of close relatives who have suffered similar complications. My mother also told me that I nearly died
from an illness when I was a child. From the stories that my mother told me, I gathered that she
suffered from kwashiorkor as a small child as she described her big tummy and thinner limbs. It
would seem that this early malnutrition impacted on her later health, compounded by multiple births.

But my plan to have a good education almost crumbled because of an out-of-wedlock pregnancy
during my final year of nurse training. I was devastated, horrified, and the experience itself was
painful and humiliating. I deeply regretted my action and the pain caused to my family. I attempted
suicide. During the final PNG National Nursing Examination, I was numb and could not concentrate.
Although I was one of the top students, I failed the exam. Fortunately, I was given another chance to
do a supplementary exam and was successful. I graduated in 1982 as an enrolled hospital nurse and
then a year later took a bridging course to upgrade my knowledge and skills. I became a general
registered nurse a year later.
My decision to become a midwife was strengthened when I went to Mussau Island to have my first baby. It was important to stay close to my family to receive support from them. On arrival, my whole family welcomed me with open arms and loving hearts as they always do. That was highly comforting to me. A few weeks later, at the onset of labour, I was taken to the health centre where I gave birth to my baby. My own difficult childbearing experience prompted me to contemplate becoming a midwife. It created awareness that there are many women in rural villages of PNG who suffer a great deal. Some of them even die. Their fate is largely preventable.

I wanted to further my education as a midwife and do something for these women who could barely rise above their circumstances unless someone helped them. These women are powerless to speak up to the local authorities to help them.

In 1987 I graduated from Port Moresby Allied Health College, PNG, with a distinction in midwifery. The award was given during the graduation ceremony and I received a gift from Professor Mola, a leading obstetrician and gynaecologist in PNG.

In 1990, I gave birth to my second child at the hospital. When I was in labour, my attending midwife wanted to augment my labour pain because I remained calm despite of the labour pains. Even as the labour pains intensified, I laboured silently until I gave birth to my baby son. Then in 1992, I had a third newborn who sustained a green stick fracture of the clavicle at birth. This injury was caused by a birthing attendant who was a nurse without midwifery proficiency.

I have observed some hospital staff abuse women in labour. That is unacceptable to me. I would rather see respect shown to women who seek professional help in the hope of receiving the quality care which they deserve. In PNG, if we want to encourage women to access professional birthing supervision, then we need to correct our professional attitudes and behaviour before more expectant women arrive at our doors for help.

In 1991, a window of opportunity was opened at the College of Nursing in Rabaul, ENBP. A designated tutor position was advertised which required an applicant to have a midwifery background. Yet no previous nursing education qualification was essential. I applied for this teaching position and was successful. By then, I was studying a few subjects through an external study program offered by the University of Papua New Guinea (UPNG) at an adult matriculation centre (now called UPNG Open campus). It was essential that I complete this in order to receive secondary school certificates for grades eleven and twelve. I had only completed grade ten for acceptance to do nursing. I was also nursing my baby at the time. Things were quite tough but I was determined to study. This proved successful as my marks for the first three subjects, namely English 1 and English 2 and Maths 1, were exceptional. I then felt able to apply to UPNG, Goroka Campus. I was encouraged to take up study for a diploma in health teaching being offered to students in 1995. My study application was successful.
In September, 1994, however, there was a gigantic volcanic eruption in Rabaul town. The nursing college where I started a teaching role was closed. Trainees were relocated in other institutions namely Lae, Goroka and Mendi.

In 1995 I studied and received a Diploma in Health Education with Distinction. Just before completing my teacher diploma, I wrote to the PNG National Department of Health Training Division, requesting appointment to one of the existing Colleges of Nursing to pursue a teaching career. This was granted, and in 1996 I taught at Lae Nursing College, Morobe Province, PNG. Following this appointment, I commenced teaching at Sopas College of Nursing, Enga Province, PNG in March 1997.

Working in a team is important to me. I learned to do this when I was still in school. For example, in Boliu School our teachers assigned us to ‘pathfinder’ groups, girls and boys. We performed tasks and often competed with other groups and were assessed. The activities ranged from work and sports to spiritual activities. One of the major activities was to build a small hut entirely from bush material. As the group leader, I took extra time after our normal work hours during the week days to look for bush materials. I cut enough trees, bush ropes and leaves. A few times my close friend helped me with these collections. Finally, the day for the building project competition arrived. Everyone was excited. We were given a number of minutes to build a complete house in order to win. Our group was well organised and ready to start. The bell rang and we started building. Every group member in our team knew their task and when to assist others if necessary. Within a short time, not only was our small house completely built but it was neater and more attractive than all the rest of the houses for the other groups. We were pronounced the winners! It was an awesome feeling that paid off for everyone. It was team spirit that enabled us to win. That is the lesson I learned even though I was less than 15 years old at the time. Of course, there were no prizes to be awarded or formal recognition given to our group. Yet we were proud of our achievement.

I believe that being able to work collaboratively with other team players is vital to the success of any workplace. I resolved that this team spirit would be reflected in my research study. Personally, I observed and played a part in team spirit in three working environments as described below.

Firstly, some decades ago I worked with a number of medical personnel at the outpatient and emergency department (OPD) of the Nonga Base Hospital in Rabaul, ENB. All staff respected and cooperated with each other, including the charge nurse. We ensured that clients received care and were satisfied with that. It was a very productive environment to work in. I have fond memories of a hard-working team. For instance, one mid-morning a young healthy male was wheeled into the minor operating theatre. The female staff on duty quickly checked his condition and reported this to an expatriate doctor on duty. The doctor examined him and noted a dorsal slit circumcision was bleeding profusely. She recommended immediate surgical repair at the main hospital theatre. But the patient
refused admission, perhaps because he was embarrassed, and insisted that the repair be done in the minor theatre of the OPD. The doctor requested that I do this for him. I gladly performed that and on completion, the doctor remarked that I had done a good job for him. The man graciously thanked me.

Secondly, I worked with a small group of teaching staff at the Sopas College of Nursing in Enga Province, PNG. Everyone respected and cooperated with each other. The effect was felt by our trainees. Many expressed how thrilled they were to be trained at our institution. We served as good role models for our students. It was team spirit that culminated in a harmonious working relationship. We viewed each other as equals, and shared our knowledge and skills with each other. That spread to other social activities on campus such as picnics and sporting activities.

Finally, when I worked as a ward manager in the antenatal and gynaecology ward at Nonga hospital, I tried to demonstrate team spirit. I respected my subordinates and women clients. For example, the monthly staff roster allowed staff to have equal numbers of weekends on and off duty. Similarly, the staff had an opportunity to have a day off during either Christmas or New Year. It was important that staff had time off to spend with family during the festive seasons. We also worked together to ensure we had drugs and other basic equipment to care for our clients.

**About midwifery practice**

In the same ward, one day a concerned client with pre-eclampsia reported to me that a night duty nurse had not taken her four-hourly blood pressure. Instead the nurse just guessed the blood pressure and documented it on the client’s chart. This was negligence that should be corrected. I thanked the client and promised that I would speak with the night duty nurse concerned. I called the nurse to the office and enquired about the allegation. She realised that failure to monitor blood pressure meant that the woman’s impending eclampsia could not be detected earlier. In reality, this could give rise to a serious complication of seizures and even death. She admitted her wrong-doing and apologised. After that, the nurse improved her performance.

We received between five and seven pregnant women with moderate to severe anaemia per week. The former group needed an intravenous total dose of imferon, while the latter needed blood transfusion. The types of treatment were determined by the gestation period and the haemoglobin level. As nurses we were able to promote maternal health by suggesting they take antimalarial tablets and anti-worm medication. They were advised to eat lots of green leafy vegetables and proteins. Each woman was reviewed by the doctor and then discharged. It was important to treat women promptly so they could go home to their families.
My interest in the promotion of maternal health

As an Indigenous woman and nurse-midwife from PNG, I have personally experienced complications of childbearing as shown earlier. This occurred not only at the rural health centre but even at a referral base hospital. My parents and aunt paddled me in a dug-out canoe to reach Palakau health centre (closed in the early 1990s) when I was in labour at home. This took about one and a half hours to reach the shore, leading to the health centre. I could not walk then because the labour pains were intense, so I was carried on a stretcher up the hill to reach the health centre. This took approximately twenty minutes. After a few more hours of active labour I gave birth, assisted by a general nurse. It was my first birthing experience. I bled profusely and fainted a few hours after the birth. Fortunately, the nurse revived me with intravenous fluids. My baby also suffered from neonatal sepsis and nearly died. Although the cause of the infection is unknown, it might have been due to unsterile equipment used during delivery. As my case illustrates, there is an acute shortage of midwives employed at all levels of health facility in PNG.

As a familiar woman and trusted professional, I am often asked for advice by members of my home community when I visit. For a number of years, the only person who worked at Epo health centre (closed recently) was a male community health worker. There were no female nurses and/or midwives. In this situation, the health needs of women especially those that have strong cultural norms are overlooked and/or perhaps ignored by health authorities. Two young women, my niece and my sister in-law are alive today because I was able to assess their pregnancies at home and advised both to go to the hospital to give birth. Both suffered antepartum haemorrhage and needed emergency caesarean section. Two others were not so fortunate. I had not visited home for some time and had not seen their pregnancies progress. These young mothers were parity one and two respectively. Both women developed serious pregnancy-related complications. One had an episode of antepartum haemorrhage at the health centre just prior to the birth of a fresh dead baby boy. She continued to bleed after giving birth and died shortly while waiting for a transport to evacuate her to Kavieng hospital. The other died some hours after giving birth in the village. She had a retained placenta that precipitated a postpartum haemorrhage. Her baby son survived and is now a strapping young man.

One of the ideal ways, I believe, that might make a significant contribution in improving the maternal health of women and in reducing the high rate of maternal mortality in PNG is through research. My earnest desire is to assist rural women realise that they need not suffer from maternal mortality or morbidity. Hence, the recent death of my own beloved mother, although heart-breaking, has given me renewed determination to move forward with my research. Only women with the ability to conduct meaningful research will have any significant impact on maternal healthcare policies in PNG.
Most of the stories above occurred only a decade ago. We are now in the twenty-first century, yet just a few months ago, still on Mussau Island, a young woman of parity 2, had just given birth and then walked for five hours, approximately twenty kilometres in order to access basic health care. Sadly, she died before reaching the ‘nearest’ clinic. These examples serve to illustrate the importance of this study.

I have shared my background, values and my beliefs so that awareness can be created about the way in which these values could possibly influence this research study. Recognising and being aware of these have influenced and also been created by my background. It is important as I generate, translate, interpret and analyse data sets: my journal, stories and PAR group activity. This story also introduces the reader into village life, and is a reminder that there is still no running water, and people still wash behind the houses or in the sea. Having enough to eat is an enduring concern. When the crops fail there are few options. Sometimes the rural poor go hungry. Malaria is still the main cause of death in the village. Finally, there is a need to improve the health of women and prevent maternal mortality in PNG. This was the main aim of this study.

**Conclusion**

In this chapter I have discussed the background to the study with a focus on my personal background and decisions that motivated me to conduct the study and for my selection of PAR. This methodology, as discussed later, is most appropriate for this project as a community development initiative. I also provided a brief discussion about the purpose of this study and the research question.

The content of subsequent chapters from Two to Eleven follow.

**Chapter Two**

In Chapter Two I review the global context of maternal mortality and ways to promote maternal health. I provide a Primary Health Care framework, discuss the PAR principles that guide this study and provide a broader picture of PNG. In particular, the political context and fragmented health delivery to the rural population, which impact negatively on the health of women in PNG, are highlighted.

**Chapter Three**

This is the review of the literature pertaining to success at reducing maternal mortality in developing countries. The World Health Organisation (WHO) and Safe Motherhood propose programs and interventions that lead to an improvement of maternal health. These include antenatal care, family planning, safe abortion, skilled birth attendants, trained traditional birth attendants, malaria control, nutrition, emergency referral system, and dietary supplements.
Chapter Four
I will articulate the philosophy underpinning this research study. The Koch and Kralik’s (2006) PAR methodology is discussed for its relevance. The rationale of choosing it above other types of research is elaborated in relation to the study. The principles of PAR are also incorporated here.

Chapter Five
The research processes for Phase One and Phase Two are discussed including ethical and rigour considerations. Also, health and safety issues are discussed to show the process I followed in order to conduct the study in a rural village of PNG.

Chapter Six
I explored possibilities for promoting maternal health with four female participants from PNG who lived in Newcastle, Australia. There are many versions of PAR but the appeal of Koch and Kralik’s methodology was the storytelling component, which in my study preceded group activity.

Storytelling allowed me to invite participants to talk about their childbearing experiences. Initially, one-to-one interviews were undertaken. Four stories were told about pregnancy and birthing, and then we facilitated PAR groups with these women on four occasions to initiate action. I discuss the actions undertaken by the PAR group.

Chapter Seven
In this chapter I provide local context information that will assist the understanding of the cultural, educational, traditional and socio-economic circumstances in Lomakunauru Village.

Chapter Eight
In Phase Two of this study I recruited village women who were then asked to relate one pregnancy and birthing story. Ten village women volunteered and told one pregnancy and birthing story in their local language. I transcribed verbatim and the story was returned to the women for validation. Their entire validated stories (in English) are given in this document. Then the interview, analysis process and storyline writing was repeated for each transcript. I then compiled a list of all significant statements from each of the stories. I wrote up the commonalities as constructs based on these.

Chapter Nine
In addition to the ten participants, another thirty village women joined the PAR groups. Men encouraged the women to attend. Together these village women generated action toward improving
maternal health in their village. Awareness was raised of the problems associated with maternal mortality. In this chapter I describe the resultant actions taken by the PAR group.

**Chapter Ten: Discussion**

Here I discuss the findings of the study and merge them with current literature. I aim to connect and communicate with international representatives from national and external organisations including the WHO, World Bank and United Nations representatives in PNG in the hope of collaborating to meet the fifth Millennium Development Goal by 2015 and beyond.

**Chapter Eleven: Conclusion**

I will write about the need to establish a local network with village-based health workers and initiate a support system with strong representation of opinion leaders and change agents who are ready to hear the voices of the women participants and act on reform strategies to reduce maternal mortality. I will end sharing the outcome of the study, in alignment with the United Nations and PNG’s aim of meeting the fifth MDG by 2015.
Chapter Two: Context for the Study
Introduction

In the latest census PNG had a population of 6.5 million people. In 1975 PNG gained independence from Australia. It was formed from many diverse cultural groups. In 1999, the people spoke more than 800 languages (Bolger, Mandie-Filer et al. 2005). In 2012, there were 1,100 languages reported in PNG (Martin, 2012). In PNG each language group has a distinct culture. English is an official language in the education system and the government of PNG (GoPNG) but it is not widely spoken. The primary lingua franca of PNG is Tok Pisin which is commonly known as New Guinea Pidgin or Melanesian Pidgin and the Hiri Motu language is used in the Papuan region. Although the adult literacy rate has improved to 57.8%, nearly forty percent of the population is still uneducated (Gewertz & Errington, 2006).

The country with its 600 associated islands is the largest in the South Pacific, both in land area and population. It has a total land area of 462,840 square kilometres. The country’s geographical features are dominated by extensive mountain ranges, rainforests, coral atolls and river systems. About 50% of the total land area is mountainous, and as a result many areas of the country are still inaccessible by road. It is also highly bio-diverse, being one of the earth's mega-diverse regions. It is very mountainous and has natural resources, although there are concerns over deforestation and pollution from mining projects. Close to 87% of the population live in rural areas. Access to widely scattered rural communities is often difficult, slow and expensive (Litau, 2011). With around 40% of the population living in poverty, PNG faces some tough development challenges (Mackay & Lepani, 2010a). There are large socio-cultural differences between and within provinces.

PNG’s relative level of poverty in relation to neighbouring countries is increasing and it now ranks 148th out of 182 countries (United Nations Development Programme, 2008). Subsistence farmers, fishermen and hunters constitute the poorest segments of the population. However, an increasing number of people living in settlements around the cities are disadvantaged with low income and poor living conditions. Widespread violence against women and achieving gender equality remain one of the major challenges in PNG (Litau, 2011). The country is a signatory to the Millennium Development Declaration. The first MDG progress report was published in 2005 and the second report early in 2010. The reports show the progress being made by the country towards the attainment of the MDGs, but there is considerable work to be done if PNG is to come anywhere near attaining these goals.

In addition, PNG is situated on the Pacific Ring of Fire, a point of collision of several tectonic plates. There a number of active volcanoes and earthquakes are frequent. In July, 1998 an earthquake-triggered tsunami off the northern coast of PNG killed at least 1,500 people and left thousands injured and homeless. Whilst PNG is richly endowed with natural resources, the high cost of negotiating
appropriate agreements to develop these resources is problematic (United Nations, 2008a; United Nations Development Programme, 2008).

PNG is classified as a low middle-income country with $US 2,084 GDP per capita. As stated, PNG has one of the highest maternal mortality rates (MMRs) in the world with 773 reported deaths per 100,000 live births (Sangai, de COSTA, & Mola, 2010). Maternal mortality is where a woman dies when she is pregnant or within forty-two days of termination of pregnancy. Her death occurs irrespective of the duration and site of pregnancy. The cause of death is either related to or aggravated by the pregnancy or its management but not from accidental or incidental causes (World Health Organisation, 2007).

In the year 2000, PNG was one of the 189 countries to provide a signature to the United Nations Declaration of Millennium Development Goals (MDGs). The fifth MDG aims to cut the maternal mortality ratio by 75% by 2015. MMR or maternal death was chosen as the health indicator or outcome by which to evaluate progress towards the fifth MDG. In August, 2006, the Government of PNG endorsed the MDG coordination and implementation project (United Nations Development Programme, 2008).

The risk of a woman dying as a result of pregnancy or childbirth during her lifetime is about one in six in the poorest parts of the world, compared with about one in 30,000 in developed countries (Mavalankar, Vora, & Prakasamma, 2008) where maternal mortality has virtually been eliminated for women with the means and status to access health care. PNG’s 773 reported deaths per 100,000 live births can be compared with Australia which reported five deaths per 100,000 live births in 2008 (Hogan et al., 2010). Inequalities and the risk of maternal death touch the most vulnerable people in the world including rural populations and the poor, a fact which is highly relevant in PNG (2009). Of note is that Kerber et al (2007), argue the need for a continuum of care for maternal, new-born and child health. In response to MDG5, literature advocating ways in which maternal mortality can be reduced is receiving renewed policy attention. It is understood that a low-resourced country like PNG may not be able to respond financially to some of the interventions suggested by others such as training more midwives, providing more community health care centres, strengthening hospital systems and providing transport infrastructure (AusAID: Australian International Development Aid Program, 2007; Australian Government, 2008a). Even if there were political will to stimulate new policies, the costs associated with these interventions may prohibit health system reform. However, the mobilization of rural women themselves toward improving their own maternal health can, and should, be actively facilitated and promoted.

In order to understand better what primary health care and the new public health (White, 1999) can do for the women and the rest of the population of PNG, the concepts of health, community, community health and health promotion need to be defined.
The WHO defines health as “A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 2005). The bibliographic citation for this definition is Preamble to the Constitution of the WHO as adopted by the International Health Conference, New York, 19 June - 22 July 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, No. 2, p. 100) and entered into force on 7 April, 1948. This definition has not been amended since 1948 (WHO, 2005) and continues to hold today, as is evidenced by its extensive use (Frieden & Henning, 2009; Lawn et al., 2008; Rohde et al., 2008). Health is viewed as a resource of everyday life, not the objective of living and is a positive concept emphasising social and personal resources, as well as physical capacities. Health is a blessing but few appreciate its value. Yet it enables efficiency of one’s mental and physical powers. All impulses and passions are rooted in the body. Therefore it must be kept in the best condition physically as well as guided by the spiritual influences in order that a person’s talents might be put to the best use (White, 1999).

A community is a specified dynamic entity which strives to implement actions through interactions of people within the geographical spaces where they live, and the resources they have and use (Rosato et al., 2008). Hence, people collaborate to shape and develop the community in ways that enhance positive health outcomes for themselves.

The term community health refers to a ‘philosophical belief of social justice and empowerment. Dynamic and contextual community can be achieved through participatory, community development processes based on ecological models that address broad determinants of health’ (Baisch, 2009).

Health promotion is a ‘Process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical, mental and social well-being, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment. Therefore, health promotion is not just the responsibility of the health sector, but it goes beyond healthy life-styles to wellbeing’ (Collins & Hayes, 2007; Dressendorfer et al., 2005; Lezine & Reed, 2007; MacLaren & Kekeubata, 2007).

I concur with Reason and Bradbury, who writes that participation is a political imperative because it affirms the fundamental human right of persons to contribute to decisions that affect them. They He writes:

Human persons are centres of consciousness within the cosmos, agents with emerging capacities for self-awareness and self-direction. Human persons are also communal beings, born deeply immersed in community and evolving within community … we are not human without community. Participation is thus fundamental to human flourishing, and is political because, particularly in these times, it requires the exercise of intentional human agency,
political action in public and private spheres, to encourage and nurture its development (Reason & Bradbury, 2008, p. 47).

**Primary Health Care as the Official Policy**

In 1978 the Alma-Ata conference on Primary Health Care inspired a revolution in international health policy by endorsing Primary Health Care as the official policy of the WHO. The Ottawa Charter aims to highlight how social health determinants including gender, age, class or ethnicity and socio-economic aspects could reduce inequalities in healthcare (Bosch-Capblanch, Garner, Lai, & Baea, 2008; Muchukuri & Grenier, 2009). Its major goal is to build community capacity to enable sustainable health and wellbeing. Community capacity building is based on the fundamental core values of equity, community participation and self-determination, which embody human rights and shared social expectations.

Therefore, the Ottawa movement constitutes the New Public Health approach to promotion of health and it seeks to advance the interests of groups disadvantaged by gender, age, class or ethnicity. It requires a shift in thinking about health promotion from being related to lifestyle behaviours, prevention of disease and disability, to include wider social and political reform. The challenge to promote health between sectors (e.g. human services, transport and health) requires collaboration between governments, health and other economic sectors. Some authors (Baum, MacDougall, & Smith, 2006; Uki, 2012), believe that public health encompasses a wide array of social, economic and political activities as pronounced by the Ottawa Charter and the community participation. Baum (2008, p. 253) argues that,

> Social health neatly summarizes the philosophy and distinguishes the new public health from approaches that have been dominated by medicine. Health promotion is one of the key aims of the new public health. Community health and primary health care are key strategic areas within the health sector.’

I am aware that the concepts of Primary Health Care belong under the umbrella of New Public Health and all have a population target. Of note is that the new public health model advocates actually promoting good health, in contrast to the old model which focused mainly on medical cures for existing ill health. The new model upholds health promotion in lifestyle-related actions (Lawn et al., 2008). As noted above, health is ‘a state of complete physical, mental and social wellbeing and not just a mere absence of disease’ (Nutbeam, 1998, p. 11). Following this widely accepted definition of health, people should understand their rights to receive health care and know that health encompasses every aspect of their lives. This requires promoting health.

According to Baum (2008) health promotion embraces five key action statements:
Build healthy public policy.
Create supportive environments.
Strengthen community action.
Develop personal skill.
Reorient health services.

I will briefly explain these five new public health concepts and will comment on their developments in PNG. Building healthy public policy refers to advocating a clear political commitment to health and equity in all sectors. This requires the establishment of a public health policy that ensures equity of services at all levels. The creation of supportive environments relates to health promotion that generates living and working conditions that are safe, stimulating, satisfying and enjoyable by all people. At the heart of the process of strengthening community action is the empowerment of communities through developing ownership and control over their endeavours and destinies. Health promotion supports personal and social development through the provision of information and education for health. This works to increase the options available to people to exercise more control over their health. Reorienting of health services views the role of the health sector as moving increasingly in a health promotion direction, beyond its responsibility for providing clinical and curative services. Health service reorientation means expanding the health service mandate that fosters sensitivity and respect towards diversity of cultural needs.

Noting deplorable health conditions among the world’s poor, especially the rural poor, the Alma-Ata declaration (Bhutta, Ali, et al., 2008; Bosch-Capblanch, Garner, Lai, & Baea, 2008; Walley et al., 2008) stressed the urgent need for a reallocation of health-related expenditures in order to provide adequate, low-cost health services for all. Innovative features of the WHO model of Primary Health Care were strengthening community action, a focus on community participation and local self-determination.

**Primary Health Care in PNG**

Within the context of health care administration in PNG, a country that has endorsed primary health care and has long had a system of village-based health workers, it is observed that since the culture of the health care system is similar in many developing countries, the five key elements listed above ought to be implemented to enable rural villagers to gain health care benefits. It is encouraging to note that the PNG National Health Plan 2011-2020 for the new decade strongly advocates Primary Health Care as its main driving force to improve the health of PNG rural population (Australian Government, 2008d; Lepani, 2010). Lack of reliable MMR data is often cited as a problem in developing countries (AbouZahr & Wardlaw, 2009) and PNG is no exception.
In addition, maternal deaths are more often misclassified than other deaths, possibly because of the stigma of inadequate treatment associated with maternal mortality (Hogan et al., 2010). Unsafe abortions that result in death may be missed in these statistics. HIV-related mortality rates are on the increase but not always identified as such (Sebitloane & Mhlanga, 2008). Most literature on maternal deaths tends to be about acute medical interventions and about the woman’s labour, birth, and the immediate postpartum period, with obstetric haemorrhage being the main medical cause of death. Excluded are literatures which focus on associated factors that impact on the lives of women who give birth in remote and rural locations, yet these are the places where most women die in childbirth. Women’s voices are rarely heard in this literature.

Guided by the Primary Health Care framework previously discussed, my main aim in this study is to enable village women to take control of their lives and to make lifestyle choices which lead to and maintain good health. But in order for women’s choices to be sustainable, community participation is required, involving the wider sectors: transport, education, economic and health. In the effort to make contact, and in the context of the study reported here, I explored the lines of communication of health and other sector administrations that exist outside the village community at provincial and national levels. In this way the decision makers in national ministries and WHO can gain knowledge about local village conditions, and register the women’s reform suggestions towards developing more meaningful Primary Health Care programs and policies.

It is understood that ‘old’ or basic public health measures such as clean water, sewerage, adequate food and access to literacy should not be taken for granted, certainly not in Lomakunauru village, Mussau Island. Baum (2008) notes that millions continue to die worldwide for want of basic public health measures that are essential to promoting health and longevity. When women are asked to make suggestions to improve maternal health in their village it needs to be understood that for reforms to become operational it will depend on the availability of resources and existing basic public health services. This village, like many others, does not have running water or electricity or the internet. Women in this village are semi-literate. Only 3% of PNG’s roads are paved and most hospitals are not accessible by car, so most people travel across the provinces by foot, canoe, boat or air (Australian Government, 2008c). There is inadequate antenatal care, and the low number of births attended by trained health professionals increases the risk to both mother and child during delivery (Jo, 2009b). With these things in mind, the Alma-Ata declaration is an extremely difficult (if not impossible) policy to put into practice.

**Re-orienting Primary Health Care in PNG**

While there is discussion about diverting healthcare from the old public health model which advocated a predominant medical curative approach, (Rohde et al., 2008) to the new public health
approach which upholds health promotion in lifestyle-related actions, PNG’s population is still to take
delivery of a medical curative approach. PNG was declared to have an epidemic of HIV in 2003
(Australian Government, 2008b). Today more than 2% of the adult population is infected. AIDS-
related diseases are the leading cause of death at the General Hospital in Port Moresby. Tuberculosis
remains a major health problem. Other leading causes of preventable death include pneumonia,
malaria, diarrhoea and meningitis. The rise of the more ‘invisible’ chronic conditions such as diabetes
and hypertension are also a major concern. The current ratio is approximately one doctor to ten
thousand patients (Papua New Guinea Nursing Council, 2006). Modern medical systems developed
mainly in the 1960s and 1970s had an official focus on Primary Health Care but in reality, these have
had much reduced effectiveness since the 1980s (Morris & Steward, 2005). Rural health centres have
been poorly maintained and serviced, and health workers although skilful cannot function fully
without basic resources like drugs and equipment to treat the sick in rural facilities. The health budget
has been increasingly concentrated in urban areas, though the bulk of the population and the health
problems are concentrated mainly in rural areas, resulting in a worsening ‘inverse care law’ that is
particularly significant for women. The overall health status has declined in the past decade despite
overseas advocacy of new policies, and the prospects for improvement are poor (World Bank, 2008b).

In PNG there are limited health and medical services not only in Primary Health Care but also within
the secondary and tertiary levels of health care. In rural areas, where the majority of PNG
childbearing women live, referral to the hospital is critical when obstetric emergencies arise. As a
result, women can be attended only by a doctor at the nearest hospital for advanced treatment. In the
absence of the obstetricians, surgeons have performed caesarean sections whenever necessary. In
other words, PNG needs basic public health services in the first place before they can be reoriented
towards ‘new’ public health. However, it is possible to approach both old and new public health and
be associated with health promotion at the same time. While some progress has been reported in the
areas of health promotion (Hinton & Earnest, 2009), there is much to do in the areas of social justice,
equity and access to health care for all people.

The NDoH of PNG is grappling with chronic health problems as well as addressing many emerging
communicable and non-communicable diseases (Lepani, 2010). However, social determinants as well
as socio-economic issues that are associated with health or ill health need to be addressed if real
changes can be realised in achieving the WHO goal of ‘health for all’. For example, many people in
PNG continue to live a subsistence livelihood and earn less than $AU1 per day (New Zealand
Ministry of Foreign Affairs and Trade, 2008; United Nations Development Programme, 2008). If the
PNG government can assist these people to raise their standard of living then health related costs may
be affordable by many people. At this stage most people cannot afford transport and/or receive health
care services either, whether they are sick or if they want to access screening tests such as detection of
HIV, papanicolaou test, breast mammography, hepatitis and prostate gland tests, to name a few.
In developed countries, governments offer health care subsidy fees for their population such as Medicare in Australia and Nepal free maternal healthcare (Barker, Bird, Pradhan, & Shakya, 2007). In PNG such health care insurance schemes are lacking for the general population. The principles of Public Health Care advocate basic health care that is accessible, affordable, culturally sensitive and effective. But health services of this type are not always available in PNG. For instance, in PNG there is only one cancer chemotherapy and radio-therapy unit, which is located in Lae, Morobe Province. Although this service offers treatment for women with cancer of the cervix, its services are inaccessible to many women who live furthest from the hospital. In terms of health promotion, the important point is to prevent cervical or breast cancer through early detection or preventive human papilloma virus (HPV) immunisation. In the same way, HIV testing should be available at the village level to village people who are counselled and consent to be tested. Follow-up tests can be done during future visits if necessary.

**Participation in Primary Health Care**

The need to improve the health of the women and prevent maternal mortality in rural PNG is the main aim of this study. This study is guided by the principles of Primary Health Care and PAR. My aim is to work toward greater participation in health care so that people can contribute their ideas, plans and participate in effective action. My philosophy is grounded in values of democracy, equal opportunities, and education as personal development. Hence, it is vital to voice participant’s issues into mainstream management and government attention.

I have argued earlier that it is important to research alongside village women and collaboratively explore what can be done to improve maternal health guided by the Primary Health Care framework. In the PNG health system the flow of information is from the top down to grass roots, and there is very little community participation. This formal administrative culture prevents an upward flow of information about health concerns from the village to the district, provincial and national levels of the administration. In other words, there is a missing link between community participation, self-determination and the control maintained by central health service delivery planning. One of the aims of this study is to build partnership and work with higher administrative process and authority and invite a bottom-up local village response to promote maternal health care.

Local village women have a voice about health service reforms they want to instigate and this community participation will need to be made perceptible to PNG health service administrators and WHO networks. As discussed, participatory approaches to promote health have been advocated since 1978 through the Alma Ata declaration which emphasised the need for citizen participation in Primary Health Care. Reducing MMR often means finding strategies designed by and acceptable to local women and getting on with what works (Bhutta, Ahmed, et al., 2008; Bhutta, Ali, et al., 2008).
PAR can mobilize strategies aimed at reducing maternal mortality because it can draw on the collective capacity in communities to solve problems (Manandhar et al., 2004). Through mobilizing women, awareness and expectations is raised towards human rights promotion alongside improving maternal health. This would place pressure on the PNG government to act. Local actions are often sustained when women themselves take ownership of the agenda toward reform (Koch, 2006). In coming to understand the reason for maternal mortality the literature suggests (Babalola & Fatusi, 2009) that context background and local variation are different in every setting. So it was important to explore background factors in this area of PNG. The reason for conducting the study in one village is that researchers have to understand something before they can change it. Reducing maternal mortality means finding local strategies and getting on with what works. And what works is often context dependent. One of my researcher roles was to describe the village, national and global contexts.

The Principles of Democracy

This PhD study is informed by democratic principles and it is important to assess how women’s voices may gather a response in the wider PNG political system. It is also interesting to see how this small democratic study may be interpreted in the larger PNG political system and assess how the social environment will respond to reform in health care provision. In the following I explore the democratic context of PNG and consider the way in which reform initiatives may be implemented.

Like Australia, PNG is a member state of the British Commonwealth, and has parliamentary democracy. The unicameral parliament has 109 seats of which 19 are taken by Provincial Governors and the National Capital District. Elections are held every five years. Electoral reforms in 2001 introduced the Limited Preferential Vote (LPV) system, and in 2007 a general election was conducted using the LPV system for the first time. Legislation is introduced by the executive government to the legislature, debated and, if passed, enacted by parliament. The judicial branch of government in PNG is independent. The courts and government uphold the constitutional right to freedom of speech, thought, and belief, and no legislation to curb those rights has been adopted. The 2000 census found that 96% of citizens identified themselves as members of a Christian church. In my village we are SDA Christians.

PNG Political System

Administratively, PNG has 22 provinces. The districts and local governments have appointed leaders. In the Murat District, Watson Sole is the Local Government Sub-District Administrator. I have spoken briefly with him about this study. Local leadership will be discussed more in subsequent chapters. There are three types of government that would need to be informed about the findings of this study namely, national, provincial and district levels. Kavieng District is the most northerly
region of NIP. The district headquarters are at Kavieng. This district has four local level government areas namely Kavieng Urban, Lavongai Rural, Tikana Rural and Murat Rural. The village of Lomakunauru is on Mussau Island in the Murat Local Level Government area. The Governor of NIP would be contacted in future about the outcome of this study.

Until recently telephone communication could only be made between five major urban centers. With 85% of the population living in rural communities, this meant that telephone emergency calls were not possible when pregnant women needed to consult or receive maternal health care. In July, 2007, Digicel (an Irish telecom company) switched on its mobile towers in PNG, and mobile phone users increased from 50,000 to one million people by 2011. Callick (2010) in the Weekend Australian (2011, March 26-27) reported that ‘street side betel-nut sellers and people offering single cigarettes for 25c now also sell SIM cards in Port Moresby, PNG’. As a result commerce is opening up and perhaps healthcare services will follow this progress.

In recent years, PNG's economic growth has improved, mainly due to high commodity prices, rising to 6.5% in 2007 and 6.6% in 2008 (World Bank, 2008b). The Government's budgetary and management performance has also experienced improvements. The Government is focusing on a new national development strategy that would take into account the future windfall from the planned Liquefied Natural Gas project (PNG LNG). Nevertheless, after over thirty years of political independence and some early economic and social progress, most people of PNG remain poor by both regional and international standards.

High global prices for mineral commodity exports have underpinned PNG's recent buoyant economic growth and macroeconomic stability, and the future looks better (World Bank, 2008a). There appears to be a glimmer of hope that benefits will flow to the grass roots from mineral mining, Exxon-Mobil led gas oil production and other resource-rich projects in PNG.

On the downside, there is concern about corruption in PNG which occurs in all levels of government, with their lack of transparency and accountability with public funds. Transparency International PNG reports that corruption is rampant in PNG (Koim, 2012). PNG is ranked low in the corruption index, rating 154th in the world in comparison with Australia which rates 8th and Somalia as the most corrupt country at 178th (Huguette, 2010). Unfortunately, corruption is reported at the highest level. In March, 2011, the PNG former Prime Minister, Sir Michael Somare was found guilty of thirteen charges of misconduct, involving incomplete or late returns on his assets and business dealings. Further on the same page of the Weekend Australian in March 26-27, 2011, a cartoon displayed in the Chief Ombudsman’s Office shows an Asian figure saying to an official, ‘I know you can’t accept a bribe. It’s illegal, but this is just a loan. You can pay me back.’ Dr Marat, a top public prosecutor from PNG told The Weekend Australian in March, 2011 that corruption is insidious and undermines the country’s governance (McCourt, 2010). The rationale for drawing the issue of corruption to the
attention of the reader is that my preparation for the field work was stalled for a variety of reasons, not the least some corruption in transport arrangements for my research equipment to reach its destination, Mussau Island.

The noticeable connection between corrupt countries as shown on the index and maternal mortality is that they are correspondently high. This may be speculation but at this stage it is an observation nevertheless. According to the World Bank, (2008b), 70% of the country’s population lives in poverty, with workers earning less than one dollar twenty five cents a day. In March, 2006, the United Nations Committee for Development Policy called for PNG's designation of developing country to be downgraded to a least-developed country because of protracted economic and social stagnation (World Bank, 2008b). Essential services including health care continue to decline. In the light of PNG’s promise to reduce maternal mortality, this warrants close scrutiny. The country is a signatory to the Millennium Development Declaration. There is considerable work to be done if PNG is to come anywhere near attaining the MDGs, and health care is in decline rather than improving (Sangai, de COSTA, & Mola, 2010; United Nations Development Programme, 2008).

The PNG government should uphold the suggestions made by village women about advances to be made in maternal health promotion. One of the Primary Health Care principles is to create environments where people can thrive, and so far I have briefly highlighted a variety of social, economic and governance issues in PNG that actually make these environments very threatening. In addition, the crime rate has soared (Koim, 2012). Significant challenges face the current Prime Minister whose intent is to combat corruption dealings in PNG. With the majority of the population living in poverty, the high rates of sexually transmitted infections (STIs) including HIV and AIDS, and maternal mortality rates in the Pacific region, PNG faces some tough development challenges (Duncan, Batten, & Gomez, 2009). The major health problems have remained largely unchanged in the past fifteen years, although there are recent indications of an epidemiologic transition beginning to take effect among some populations (Australian Government, 2008a). As discussed earlier, the main health problems are communicable diseases and the emerging life-style related non-communicable diseases. Although there has been a downward trend in infant and child mortality, the rates are high compared to those in other countries in the Asia Pacific region. Health services are provided mainly by the GoPNG and the churches and, to a lesser degree, non-government organisations (NGOs) (Hauck, Mandie-Filler, & Bolger, 2005).

There appears to be a high level of fragmentation in the institutional and fiscal relationships between national, provincial and lower levels of government, which has contributed to the poor health outcomes (Morris & Steward, 2005). Improving rural health services is perceived as a key to better health outcomes and attaining the health-related MDGs. The new PNG National Health Plan 2011-2020, is developed in accordance with the Government’s development strategy, along with a redesign
of the sector-wide approach and pledges for a stronger involvement of Central Government Agencies in the health sector. The new National Health Plan 2011-2020 focuses on ‘back to basics’ and improved service delivery for the rural majority and the urban disadvantaged population. In particular, the plan amplifies its aim to revamp the Primary Health Care approach in order to address and strengthen health care service delivery, especially to the rural populations.

**Health care in PNG**

The maternity services in PNG are operated largely by the GoPNG but other organisations also contribute towards to sexual and reproductive health services (Government of Papua New Guinea, June 2010). The health system within PNG focuses on providing curative health services to the population as opposed to preventive approaches (Litau, 2011; Rainham & McDowell, 2005). The curative approach focuses on the diagnoses and treatment of diseases of those who are sick in institutional facilities including ‘aid posts health centres, hospitals in rural areas to hospitals’ in urban settings (Ashwell & Barclay, 2009). Although preventive health is included in the National Health Plans of PNG, and is understood to be an integral part of the public health system, there is no evidence of preventive health approaches in practice at a national, provincial, district or local scale. PNG needs such approach to achieve sustainable population health, in particular for girls and childbearing women. To achieve optimum health service, adequately trained midwives, nurses and doctors are greatly needed in the remote and rural settings in PNG (Kruske, 2006).

There is however, recognition of the need for increased funding for rural health services and greater partnership of PNG government health service providers with non-government providers in order to enhance education and training of health care workers to ensure the reduction of MMRs (Asian Development Bank, 2006). Whilst PNG’s urban centres receive support from NGOs and volunteer organisations with a focus on women and child health issues, reproductive and sexual health, most of these are owned and operated by Christian and Protestant missions including Anglicare, Catholic Care, SDA, Lutheran and United as well as a few International organisations. Amongst these are Marie Stopes International, Clinton Foundation, World Vision, and Adventist Frontier Missionary, just to name a few (Reference or source needed). These non-profit organisations’ missions are rooted in Christian benevolence whilst providing health care and health prevention programs to populations of PNG.

Although maternity services in PNG are operated largely by the GoPNG, other non-profit organisations also contribute towards to sexual and reproductive health services (Government of Papua New Guinea, June 2010). The work of the Christian non-profit organisations extends to educating the community on awareness of HIV and AIDS in primary schools and tertiary institutions, work place and urban clinics and rural settings. Peer education courses, interactive drama performances and multimedia shows and condom demonstration and distributions, counselling and
training, community home-based care training and basic counselling and VCT training are also offered. Free support services are also provided for voluntary pre and post-test counselling for HIV (VCT), counselling for people living with HIV and AIDS (PLHIV/AIDS), counselling on family violence, relationships, drugs and basic treatment.

See the map of PNG below.
Figure 2.1: Papua New Guinea
Opportunities and Challenges in the PNG Health Sector

A new opportunity lies in the National Health Plan 2011-2020 which is focusing on the ‘Back to basics’ and aims to improve service delivery for the rural majority and the urban disadvantaged population. Further, PNG Government reforms at sub-national level hope to assign clearer roles and responsibilities to the different administrative levels in the public sector in order to improve governance. As shown in the reform system of PNG, the NDoH neither manages funds nor delivers health services in all provinces. These responsibilities are clearly defined in the organic law and associated legislations as belonging to the respective provincial governments of PNG (Malabag, 2012).

It is critical to recognise partnership in health and non-state providers who should play an important role to improve service delivery and extend public services. The major development partners include AusAID, WHO, UNICEF and the Global Fund (United Nations, 2008b). The high level of fragmentation in the institutional and fiscal relationships between national, provincial and lower levels of government needs readjustment to enable proper rural service delivery. Inadequate human resources, in particular midwives and medical doctors in rural areas, and an ageing work force, must be addressed now if proper health service is to be delivered.

One of the greatest challenges for the health department in PNG is the crisis of manpower in the country. This poses huge risks to a successful fulfilment of the National Health Plan 2010 -2020. Although the same department is addressing that with support from the international development partners, it is important that the country takes ownership of the strategies to be sustained in future. Otherwise, the country will continue to face shortages of midwives and nurses who are needed to combat a high maternal mortality and morbidity in PNG.

Another challenge facing PNG is good stable governance at all levels of health service delivery (Joannes, 2012). This author reports that the acting deputy secretary, national health policy and corporate services, Ms Lionel believes that good governance is fulfilling accountability obligations, being compliant, implementing activities effectively and efficiently, implementing staff discipline and implementing staff discipline and the protection of resources against misuse or damage” (p. 25)

Conclusion

In this chapter, I provided a discussion and overview of the health care system in PNG by showing the brief background. PNG is a small but rich nation with natural resources and has unique cultural heritage with ethnic groups and many spoken languages. But it is very mountainous in many rural areas, thus creating inaccessibility for nearly 87% of the rural
population. Access to health care facilities and other GoPNG institutions and services is slow and expensive. Consequently, many Papua New Guineans’ health is at risk of diseases and childbearing women, in particular, will continue to be affected unless basic health care service delivery is improved.

In the year 2011, the NDoH devised a new National Health Plan 2011-20 (Hollen, 2003) in accordance with the GoPNG’s development strategy and the PNG 20-50 Vision, along with a redesign of the sector-wide approach. This pledges a strong involvement of central government agencies in the Primary Health Care sector. It is hoped that such would lead to better health services in PNG, in particular, maternal health.

And in doing that, MMR would be reduced. Further, the GoPNG is committed to training more skilled birthing attendants with midwifery skills to meet the needs of childbearing women in line with the principles of Primary Health Care. Then the fifth MDG will be achieved.

On the other hand, corruption in the PNG at all levels need attention but most importantly in the health services in order for health delivery in rural settings to be achieved as proposed in the new health plan. Good governance is also critical in all state and private health sectors to function effectively. In the next chapter, I will explore the literature on the fifth MDG: ‘improving maternal health’ in other developing countries to meet the UN target in reducing MMRs by 2015.
Chapter Three: Literature Review
Introduction

In this chapter global progress being made toward the fifth MDG is reviewed. The literature review articles were searched mostly through the Nursing Databases and Advanced Google Scholar. The key search words included maternal health, maternal mortality, developing countries, PNG, fifth MDG, safe motherhood and community development. Although more than 1000 articles were found, only those dating from 2005 to 2011 were selected for the review because of their relevance to the main theme, improving maternal health.

The major areas of discussion are centred upon improving maternal health as the fifth of eight UN MDGs. These areas include: overview of maternal health, safe motherhood, maternal mortality, monitoring of maternal mortality, other medical conditions impacting on maternal mortality, prevention of maternal mortality, improving maternal mortality health through advocacy, family planning programs, abortion services, antenatal care, skilled birth attendants, trained TBAs, and other considerations including birthing kits, nutrition, diet supplements and malaria control.

The MDG’s eight goals to be achieved by 2015 are to (1) end hunger and poverty, (2) achieve primary education for everyone, (3) promote gender equality and empowerment, (4) reduce child mortality, (5) improve maternal health, (6) combat widespread disease, (7) ensure environmental sustainability and (8) develop global partnership for development. Progress to achieve these goals may be uneven but they are nevertheless interrelated.

The UN established a high-level commission to develop an accountability framework for the Global Strategy for Women's and Children's Health. ‘Strengthening accountability is critical if we are to save the lives of more women and children,’ said UN Secretary-General Ban Ki-moon. ‘We must ensure that partners deliver on their promises but, in turn, it is crucial that they know whether investments are leading to sustainable progress.’ In September, 2010, at the Summit in New York, stakeholders committed $US40 billion in resources to a global effort to save the lives of 16 million women and children by 2015 (Lynch, 1998). In 2000, 189 countries signed up to show their commitment to achieve these goals by 2015.

An overview of maternal health

The reproductive years of childbearing women are between 15 and 49 years of age (George, 2007; Harrison, 2010; Yakong, Rush, Bassett-Smith, Bottorff, & Robinson, 2010). Maternal health is a development and human rights issue (Paul et al., 2011; Tian, Li, Zhang, & Guest, 2007). In developed countries, health care for women is usually given as family planning and preconception, prenatal, intrapartum and postnatal care. In the effort to reduce maternal mortality, preconception care and education of girls and women are given together with health promotion (Heaman, Newburn-Cook,
Health promotion, screening and other interventions among women of reproductive age are meant to reduce risk factors that might affect future pregnancies. In addition to the educational, emotional support and reassurance gained by the woman in attending antenatal clinics, prenatal care is aimed at early detection of any possible complications of pregnancy and labour and their prevention if possible (Ozumba & Nwogu-Ikojo, 2008). The women can be directed to specialist medical services where necessary. Postnatal care includes recovery from childbirth, newborn care, nutrition, breastfeeding and family planning (Mrisho et al., 2009). In the developed world, a skilled carer with midwifery skills is present, transport is available to access distant referral services and the woman has easy access to emergency obstetric care (Paxton, Bailey, & Lobia, 2006). These are the procedures and services for maternal health we have come to expect in the developing world (Rukanuddin, Ali, & McManis, 2007). Although not stated as the fifth MDG, this view of maternal health could be viewed as a model for services we could attempt to replicate in all developing countries. But while haemorrhage, infection, high blood pressure and obstructed labour are the main medical causes of maternal death, inaccessible, unavailable, unaffordable or poor quality health care is responsible for women dying (Iyengar, Iyengar, Suhalka, & Dashora, 2009).

**Safe Motherhood**

Global programs to promote maternal health started with the Safe Motherhood Initiative in 1987. The initial plans for Safe Motherhood were aimed at improving women’s status (Fathalla, 2006), educating communities (Chamberlain & Watt, 2008), and expanding and strengthening important aspects of maternal health (Fortney, 2007). In other words, the initiative had an advocacy role for women’s health. In addition, they focused on maternal health: antenatal care, safe birth and postnatal care at the community and referral levels. In fact, Safe Motherhood begins with the health of young girls (Zere et al., 2010). Although these aims were voiced at the Safe Motherhood conference in 1987, these were not addressed adequately (Graham & Hussein, 2007; Rohde et al., 2008; Starrs, 2006). In 1987, less than ten years after the Alma Ata Conference (Lawn et al., 2008; Rohde et al., 2008), the professionals committed to primary health care prioritised community-based preventive maternal health interventions (Bhatta, Ahmed, et al., 2008; Collin, Anwar, & Ronsmans, 2007; Lawn, 2010). Major donors, UN agencies and governments agreed to deliver on prioritised items of the Safe Motherhood Initiatives (Islam, 2007; Lawn et al., 2008; Tita, Stringer, Goldenberg, & Rouse, 2007). The main priorities were antenatal care and training of TBAs. The former strategy was aimed at screening women to detect those with complications while the latter was to improve midwifery skills.

**Maternal mortality**

Maternal mortality is serious because every day 1000 women around the globe die from pregnancy related complications (Qomariyah et al., 2010). In 2008, 358,000 women died during pregnancy,
intrapartum and the postpartum period. Between 1990 and 2008, the global MMR, that is, the number of maternal deaths per 100,000 live births per year only declined by 2.3 percent (WHO, 2012). This is far from the annual decline of 5.5 percent which is required to achieve MDG5. Nearly 99 percent of maternal deaths occur in developing countries. Almost two thirds occur in Sub-Saharan Africa and a third in South Asia. There are huge disparities between countries, with some having extremely high MMR of 1000 or more per 100,000 live births. MMR indicates the quality of a country’s health care system and to some extent, its governance (Woolf, Johnson, Phillips, & Philipsen, 2007). In Australia, during the three-year period from 2003 to 2005, 7.9 women died per 100,000, but this figure is much higher for Indigenous women. The maternal death rate for Aboriginal or Torres Strait Islander women was 21.5 deaths per 100,000 women who gave birth in the same years, 2003-2005 (Carolan & Hodnett, 2007).

In 2000, Sierra Leone had the highest maternal death rate in the world (Wakabi, 2010), and Afghanistan (Hill, Mansoor, & Claudio, 2010) had the second highest maternal death at 1900 maternal deaths per 100,000 live births. The risk of maternal death and the probability of dying from pregnancy-related cause during a woman’s reproductive lifespan is higher still in Sub-Saharan Africa, where the risk is about 1 in 16, whereas for developed nations it is 1 in 2,800 (Chudi, 2010).

The WHO (2012) shows that MMRs vary both within countries and from country to country. This is not only evidence of inequities in access to maternal health services but it highlights disparity between the rich and poor and between rural and urban areas. Rates and disparities have not improved in more than twenty years (Armour, 2009).

**Monitoring maternal mortality**

Accurate monitoring of maternal mortality has been a constant problem. In the review since 2006, of 77 papers, mostly published in the Bulletin of World Health and the Lancet Maternal Health Survival Series, coming to terms with the statistics around maternal mortality has been the problem (Bailey, Paxton, Lobis, & Fry, 2006; Bell, Ford, Cameron, & Roberts, 2008; Betran, Wojdyla, Posner, & Gulmezoglu, 2005; Bradshaw & Chopra, 2008; Cross, Bell, & Graham, 2010; Graham, Ahmed, Stanton, Abou-Zahr, & Campbell, 2008). Little attention has been paid to monitoring progress and evaluating programs, even for the analysis and use of existing data (Bradshaw & Chopra, 2008). Policy decisions and program planning are therefore often carried out without evidence-based information and program evaluation (Graham, Ahmed, Stanton, Abou-Zahr, & Campbell, 2008). Despite perceived inaccuracies, the WHO has estimates of maternal mortality, and these have been published regularly (Jahan, 2010; World Health Organisation, 2010).

In the effort to analyse progress towards the fifth MDG target, Hogan, Foreman et al. (2010) developed definitions, established data sources and applied statistical analysis to all available data.
across the 181 countries. These authors estimated that there were 342,900 maternal deaths worldwide in 2008, and they write that there had been a yearly decline of 1.5% since 1980. Despite the 1990s HIV epidemic, which accelerated maternal deaths, the global MMR decline is 1.8% (Ghys, Kufa, & George, 2006). But if the fifth MDG target of 75% reduction in MMR by 2015 is to be reached, then the yearly decline rate needs to be 5.5%. It seems that the MDG5 target is unlikely to be met; only 23 countries are on track. Progress fluctuates in India, Nigeria, Pakistan, Afghanistan, Ethiopia and the Democratic Republic of Congo. Zimbabwe and Congo have gone backwards; their MMR has increased (Ronsmans & Graham, 2006; Rosenstein, Romero, & Ramos, 2008; Shay & Say, 2007; Yadamsuren et al., 2010).

**The direct causes of maternal mortality**

The major direct causes of maternal morbidity in the developing world are infection (Prata, Sreenivas, Vahidnia, & Potts, 2009), haemorrhage (Blyth, 2008), high blood pressure (Schutte, Schuitemaker, Van Roosmalen, & Steegers, 2008), unsafe abortion (Briozzo et al., 2006), and obstructed labour (Cross, Bell, & Graham, 2010). In the developing world, 34% of women who die in childbirth do so because of postnatal haemorrhage. Poor nutrition resulting in low haemoglobin prior to birthing means that the woman has a greater risk of dying (Jamil et al., 2008). Skilled birthing care alongside the woman to provide management while she is birthing could save her life.

In many developing countries AIDS, malaria, tuberculosis and malnutrition contribute to death among women of reproductive age (World Health Organisation, 2010). HIV rates are especially high in Sub-Saharan and Eastern Africa, where MMRs are on the rise (Druce & Nolan, 2007). Most of these causes have been eradicated in the developed world (McClure, Goldenberg, & Bann, 2007). In PNG, the highest death rate is attributed to postpartum haemorrhage and malaria (Mola, 2009; Prata, Passano, Sreenivas, & Gerdts, 2010; World Health Organisation, 2010).

**Maternal mortality is preventable**

Most maternal deaths are avoidable when high quality health services are available to prevent or manage complications (Khan, Wojdyla, Say, Gulmezoglu, & Van Look, 2006). Women need access to antenatal care in pregnancy, skilled care during childbirth and support in postnatal care (Campbell & Graham, 2006). Today the real challenges are how to deliver services and scale up interventions, particularly to those women in rural and remote areas of the world. Having government support for free care for pregnancy and birthing has been shown to radically improve maternal health (Witter, Adjei, Amar-klemesu, & Graham, 2009). In India, (Mavalankar, Vora, & Prakasamamma, 2008) the government started paying for prenatal and birthing care, and this country and China (Li, Luo, Deng, Jacoby, & de Klerk, 2007) have been cited as the major reducers in maternal mortality. Provision of free health care to mothers and children commenced in Sierra Leone under the umbrella of the
Campaign on Accelerated Reduction in Maternal Mortality in the Africa branch (Abdullah, Ibrahim, & King, 2010). Not forgetting the larger agenda to improve maternal health in tandem with the eight MDGs, some practical approaches to reducing maternal mortality are supported by the literature: family planning, antenatal care, skilled birth attendance, contraception and TBAs (Ronsmans & Graham, 2006). Knowing what works to reduce maternal mortality is complicated by diversity in developing countries, contexts and limitation of dedicated resources (Al Serouri, Al Rabee, Bin Afif, & Al Rukeimi, 2009; Arps, 2009; Bashour et al., 2009).

Progress in reducing maternal mortality has been slower than expected according to the Safe Motherhood Initiative (Arps, 2009; Hounton et al., 2005). While lack of progress can be attributed to decrease in funding (Woolf, Johnson, Phillips, & Philipsen, 2007; Zere et al., 2010), improvement of maternal health could be accomplished still if reproductive health care services focused on practical interventions (Barker, Bird, Pradhan, & Shakya, 2007; Rana et al., 2007; Smith, Dixon, & Page, 2009). Some of these practical interventions, such as advocacy, family planning, trained TBAs, skilled birth attendant, nutrition and malaria reduction could be tried in PNG.

**Safe motherhood and Advocacy**

Safe Motherhood was first pronounced as a basic human right by supporters and advocates of Safe Motherhood (Richard, 2007). The human rights include social justice, free speech, freedom from violence, gender equality, women’s rights, and freedom of religion, education and health (Braithwaite, 2008; Gruskin et al., 2008). In reality, many women in developing countries are unaware of their rights. They cannot seek advocacy assistance from appropriate personnel to advocate for their rights especially to obtain basic health care services (Hunt, 2008; Richard, 2007). Examples of these health services include family planning, abortion services, antenatal care and skilled birth attendants as discussed below. Fatahalla argues that:

> Maternal deaths in developing countries are often the ultimate tragic outcome of the cumulative denial of women's human rights. Women are not dying because of untreatable diseases. They are dying because societies have yet to make the decision that their lives are worth saving. Maternity is a social function and not a disease. When women are risking death to give life, they are entitled to have their own right to life and health protected. Societal attitudes of looking at women as means and not ends have resulted in the denial of women's rights to essential maternity services. A signal of hope is that safe motherhood is now on the world agenda as one of eight Millennium Development Goals. The global community … has a major responsibility to help make motherhood safer for all women. (Fatahalla, 2006, p. 409)

The disadvantaged childbearing women in developing countries need advocacy to enable them to attain quality maternal health as emphasized in the quote above. The term advocacy means that someone else speaks up on behalf of another person/s (Gwynn & Knight, 2010).
Within this context, all health care personnel including obstetricians, midwives and nurses should advocate for women to speak up for the rights of those who cannot speak for themselves (Gruskin et al., 2008).

Building awareness about women’s rights and maternal health is of supreme importance, and needs advocacy (Armour, 2009; Rana et al., 2007; Watts, 2006). Advocacy is essential for reliable delivery of all levels of health care (Campbell & Graham, 2006). Protecting and promoting women’s rights, empowering women to make informed choices, and reducing social and economic inequalities are vital (Lezine & Reed, 2007; Vandemoortele & Delamonica, 2010).

**Family Planning**

Family planning is often understood only as contraception but it also entails planning when to have children, birth control, sex education and pre- and postnatal counselling for couples. Family planning programs could reduce maternal mortality by 32% and childhood deaths by about 10% (Boerma 2008). Cleland and his team of researchers believe that in countries that have high fertility rates, using family planning programs can also reduce poverty and contribute to women’s empowerment and educational achievement (Cleland, Bernstein et al. 2006; Ban 2008). When families are planned a woman is more likely to bear and nurture her children and avoid many unplanned pregnancies. Essentially, the smaller the size of the family, the less money is needed to feed, clothe and educate the children.

Family planning has been identified as a strategy to improve maternal health (Ban, 2008; Cleland et al., 2006). It also enables women to delay their first birth and regulate menstruation cycles.

According to Klerman (2006), the UN claims that if family planning programs are implemented, fertility rates will decline and therefore maternal mortality will also decrease, especially in Asia and Africa, (Ban, 2008). Asia and Sub-Saharan Africa have half of the world’s population, and have the highest MMRs. Unless family planning is practised in those countries, the MMR will still increase.

Various reasons are given for accepting or rejecting family planning and in some cultures women do not access sexual and reproductive services (Cleland et al., 2006). Gender inequality, poverty and illiteracy, early marriage and high fertility impede women’s ability to make good decisions. Illiterate couples may misunderstand family planning and tend to be suspicious of what they perceive as interference in their private lives (Cleland et al., 2006; Utomo, Arsyad, & Hasmi, 2006). They may want larger families to assist with domestic chores or farming. Children provide labour, then as adults they can provide for parents (Damibia, 2008).
Many women in developing countries lack information about family planning. For instance, early marriage has been a tradition in many parts of India (Padmanaban, Raman, & Mavalankar, 2009b). Many Indians consider that ensuring an early marriage for their children is a part of their family duty. This practice continues even when the legal age for girls to marry in India is 18 years and pregnant young girls often face disastrous complications.

Goldie et al write that early intensive efforts to improve family planning, control fertility choices and provide safe abortion have been shown to improve maternal health, and if applied could save many lives (Goldie, Sweet, Carvalho, Natchu, & Hu, 2010). If contraceptives are widely available, then unwanted pregnancies will decrease (Hindin, 2007). The problem is caused by the health system’s failure to provide contraceptives (Khan, Wojdyla, Say, Gulmezoglu, & Van Look, 2006).

In countries like the Philippines, two-thirds of women giving birth have an unmet need for family planning. They are at risk of more frequent births than they need (Lee, 2008) and they are prevented from contributing actively to economic development to the wider society. Unless this trend is reversed, their daughters and even granddaughters will continue the vicious cycle of poverty and ill health (Thompson, 2007).

There are success stories of family planning in other developing countries. Utomo and the research team in Indonesia report that providing factual information and dispelling myths about family planning to couples in Indonesia was highly beneficial (Utomo, Arsyad, & Hasmi, 2006). Similarly, Damibia reports that in Madagascar family planning has decreased MMRs (Damibia, 2008). Family planning has reduced MMR in rural areas of Afghanistan (Huber, Saeedi, & Samadi, 2010), Nepal (Barker, Bird, Pradhan, & Shakya, 2007) and Bangladesh (Koenig et al., 2007). Unwanted pregnancies and unsafe abortion are being prevented (Mola, 2009).

### Abortion Services

The largest MMR reductions have occurred where abortion has been legalised (Benson, 2005; Boland & Katzive, 2008; Kestler, Valencia, Del Valle, & Silva, 2006). Safe abortion is a termination of pregnancy done by a certified practitioner at the hospital to minimise risks of haemorrhage and infection (Crane & Hord Smith, 2006). This strategy is considered a way to reach the fifth MDG (Crane & Hord Smith, 2006). Safe abortion as an intervention is difficult to assess because of the barriers associated with religious, socio-cultural or political sensitivities. Even in some countries like India, where abortion is legal, religious barriers prevent women from accessing abortion services (Padmanaban, Raman, & Mavalankar, 2009b). Despite that, India experienced an MMR decline as a result of legalising abortion.

Unsafe abortions are self-inflicted or performed by unskilled persons. They are done unhygienically and have serious complications (Benson, 2005; Boland & Katzive, 2008; Briozzo et al., 2006;
Fawcus, 2008; Grimes et al., 2006; Healy, Otsea, & Benson, 2006; Hindin, 2007; Kestler, Valencia, Del Valle, & Silva, 2006). A 2006 report by Grimes et al estimated that 68,000 women die every year from unsafe abortions in the world while millions suffer permanent gynaecological complications. Nearly all unsafe abortions (99%) occur in developing countries (Benson, 2005; Billings & Benson, 2005; Boland & Katzive, 2008; Fawcus, 2008; Singh, 2006). Women in developing countries are disadvantaged because of legal or religious restrictions (Fredrick, 2007; Harper, 2007; Jayasundara, 2009).

**Antenatal care**

In Western countries, when pregnancy is confirmed, skilled birth attendants (doctors or midwives) book women for antenatal care. Accessibility to these antenatal clinics is available to women, except for those living in remote communities (Anya, Hydara, & Jaiteh, 2008; Zanconato, Msolomba, Guarenti, & Franchi, 2006). Numerous studies affirm the following aspects of antenatal care. That is, a first antenatal examination should be done between eight and twelve weeks of pregnancy. It is then desirable that the woman attend for check-ups once a month until 28 weeks, then twice a month until she is 36 weeks pregnant. During the last four weeks of her pregnancy, check-ups are held every week. A detailed history and assessment is done at the first visit: taking account of blood pressure, height and weight. Routine pathology, blood and urine tests are organised to screen for anaemia and other diseases that could harm the baby, such as German measles, syphilis or hepatitis B. The woman’s blood group is known. There is a urine test to screen for diabetes and protein. Essential drugs like anti-malaria medications or iron supplements may be prescribed. Attending an antenatal clinic provides an opportunity for health promotion, education, communication and information about nutrition. Ideally the health care professional who is involved with the woman at the antenatal clinic will offer continuity of services through birthing and for several weeks post-delivery. There was positive benefit of attending antenatal care as demonstrated in a household population-based study undertaken in rural Tanzania where 1,204 women interviewed regarding positive outcomes of antenatal care received in the recent past (Rockers, Wilson, Mbaruku, & Kruk, 2009).

As well, antenatal services are often far away, and transport is inadequate so visiting a clinic is very difficult (Gabrysch & Campbell, 2009). This in turn leaves pregnant women vulnerable to illness because they are neither diagnosed early nor treated as they ought to be before major complications occur (Aghlmand et al., 2008; Anya, Hydara, & Jaiteh, 2008; Balkus et al., 2007; Bhutta, Ahmed, et al., 2008; Cook & Ngwena, 2006; Dieltiens et al., 2005). If the fifth MDG to be achieved, these obstacles should be addressed (Mrisho et al., 2009; Pembe et al., 2009; Pembe, Urassa, Darj, Carlstedt, & Olsson, 2008). Progress toward the fifth MDG can be realised when women have access to antenatal care which is culturally appropriate and affordable (Anya, Hydara, & Jaiteh, 2008). Thus, attending antenatal services may make a difference and facilitate progress towards the fifth MDG.
Skilled birth attendants

Skilled birth attendants are health personnel who are trained to diagnose and manage normal pregnancies and birthing and refer serious cases to a hospital (Ahmed & Jakaria, 2009; Cragin, DeMaria, Campero, & Walker, 2007; Harvey et al., 2007).

The WHO mainly supports trained midwives as skilled birthing attendants to provide supervision for women in labour as distinct from the trained TBAs (Bhuiyan, Mukherjee, Acharya, Haider, & Begum, 2005; Dahlen, 2006; Koblinsky et al., 2006; Larsson, Aldegarmann, & Aarts, 2009). In reality, however, many developing countries have very few human resources, in particular midwives, to offer better services to women (Blum, Sharmin, & Ronsmans, 2006). Urban women have greater access to skilled birth attendants than their rural counterparts. Lack of trained midwives is a clear indication of a long-term inequity against women (Anwar et al., 2008; Islam & Yoshida, 2009).

The skilled birth attendants with midwifery proficiency are expected to manage serious complications (Harvey et al., 2007). As shown below, a number of European countries improved maternal health dramatically with the skills of trained midwives. Similar success stories are evident in some developing countries where skilled birth attendants are recognized and supported. Bhuiyan and colleagues found that the performance of skilled birth attendants in Bangladesh improved women’s health. They argue that skilled birth attendants are valued by the society (Bhuiyan, Mukherjee, Acharya, Haider, & Begum, 2005).

Some developed countries had high MMRs similar to those of today’s developing countries until the early twentieth century. In Europe, improvements in maternal health were made possible with training for midwives who attended all births (Larsson, Aldegarmann, & Aarts, 2009). Such training started in Sweden, Norway, Denmark and The Netherlands. Today their MMRs are amongst the lowest in the world (Brouwere, 2007). Having a skilled attendant at every birth can lead to marked reductions in maternal mortality and morbidity. The proportion of births attended by skilled birth attendants is used as one of the important indicators to monitor progress towards the achievement of the fifth MDG in reducing MMRs. The most important strategy to reduce maternal mortality is the attendance of the skilled health professional (Ahmed & Jakaria, 2009; Brouwere, 2007; Graham & Hussein, 2007; Ronsmans et al., 2009b; Scott & Ronsmans, 2009). Timely management and treatment of pregnancy-related complications can make a difference between life and death (WHO, 2010).

Midwives are advocating for skilled care at birth (Carr & Riesco, 2007; Hounton et al., 2008). Safe Motherhood advocates that having a skilled attendant present at every birth is one of the most critical ways of saving lives (Adegoke & Van Den Broek, 2009). Even international organisations including
the United Nations are calling on developing countries to adopt skilled birth attendants as the most important intervention (Accorsi, Bilal, Farese, & Racalbuto, 2010; Bryce, 2008; Campbell, Graham, & group, 2006; Campbell & Graham, 2006; Harper, 2007; Rosenfield, Min, & Freedman, 2007). The skilled birth attendants have been successful in Bangladesh (Bhuiyan, Mukherjee, Acharya, Haider, & Begum, 2005) and have functioned effectively in Nepal (Barker, Bird, Pradhan, & Shkaya, 2007).

Investing in maternal health has long term economic and social benefits (Gill, Pande, & Malhotra, 2007). The Brazilian government trained many midwives and reached satisfactory levels of improvement of the health of women (Carr & Riesco, 2007). In Indonesia, trained midwives are routinely transferring women with complications to hospitals, thus reducing unnecessary delays in accessing health facilities. These midwives display sound diagnostic skills but they need further training to sharpen their management of obstetric complications. Trained midwives can only function within the legal boundaries of their roles and responsibilities (Carolan & Hodnett, 2007). The obstetricians are responsible for the more serious complications (D’Ambruoso et al., 2008). In Central Nigeria, significant progress has been made with trained skilled midwives (Nyango, Mutihir, Laabes, Kigbu, & Buba, 2010). In some countries work is needed to improve the clinical skills of midwives (Nyango, Mutihir, Laabes, Kigbu, & Buba, 2010; Redshaw, 2008; Ronsmans et al., 2009a).

**Traditional birth attendants**

Traditional birth attendant (TBA) is defined as a “person (usually) a woman who assists the mother during childbirth and who initially acquired her skills delivering babies herself or through apprenticeship to other TBAs. The TBA is generally an older woman, almost always post menopause, and has borne one of more children herself. She lives in the community in which she practices. Or a trained TBA has undergone a short course of training conducted by the modern healthcare systems to upgrade her skills” (Homer et al., 2012, p. 5).

Since the Safe Motherhood Initiative in 1987, most global maternal health promoting agencies have held that the training of TBAs is an important public health strategy to reduce maternal mortality (Sibley & Sipe, 2006). However, there needs to be more published evidence to demonstrate that trained TBAs can reduce maternal mortality (Harvey et al., 2007). Recently a new role has been conceived for TBAs to act as ‘link workers’ to skilled birth attendants rather than as primary care providers (Chen et al., 2010; Falle et al., 2009; Replogle, 2007; Sibley & Sipe, 2006). Broad goals have been identified: to reduce maternal and child mortality and morbidity and to improve the reproductive health of women. Individuals, non-governmental organizations and missions have trained TBAs through the private sector and also through local, provincial, state and national government.
The training programs designed (Sibley & Sipe, 2006) for TBAs vary in content, quality, contact hours, teaching methodologies, competency assessment and upgrading of skills. Training programs may last from several days to several months. Some programs include clinical practice at a health facility, follow-up supervision, and continuing education. Curriculum content of TBA training also varies. Most TBAs have been trained to upgrade their skills so as to be able to perform safe births.

Consistent with the emphasis on extending the reach of primary health care, many TBAs have also been trained to take on prevention, screening, and referral. According to Sibley and Sipe (2006), 50% of the births in developing countries are not supervised by skilled birth attendants. But under-resourced countries cannot afford to invest in skilled birth attendants, and the alternative is the TBA. It should be argued however, that TBA training must be supervised and monitored regularly.

In recent decades, it has been argued that TBAs do not play a pivotal role in saving lives of mothers and babies in developing countries (Chen et al., 2010; Low, Scheib, Bailey, & Sacks, 2006). Yet, in many developing countries TBAs make a significant contribution towards improving maternity care. A team of researchers in Samoa conducted a descriptive study with 100 TBAs who had attended about 400 births a year (Homer et al., 2012). The study concluded that TBAs ought to be recognised and registered to improve the recording of births and augment their partnership with the formal health care system.

Other studies also affirm the need to support TBAs to perform their roles effectively where skilled birth attendants are lacking (Low, Scheib, Bailey, & Sacks, 2006). For instance, a study in a rural setting of Uganda concludes that TBAs enjoy a positive reputation of assisting homebirths and are saving many lives of women despite inadequate resources and training (Tuguminize, 2006). TBAs facilitate emergency referrals effectively and reduce delays in reaching health facilities. The only major challenge the group faces lies in the clinical diagnosis and management of pregnancy and labour. Moreover, specialised skills are needed to manage serious complications. TBAs can assist rural women if they are offered basic midwifery proficiency training in identifying danger signs in pregnancy and labour complications, as well as having access to trained midwives who should offer regular supervision and mentoring (Replogle, 2007).

Further, TBAs’ knowledge and expertise are founded not only on child rearing, counseling and healing but they can take part in committees that make important decisions. This was illustrated by the Samoan TBAs (Homer et al., 2012). In Guatemala, where most Kaqchikel Mayan women preferred homebirth with support of TBAs over trained midwives in a health institution, an effective referral system enabled women to access emergency medical management promptly by skilled birthing attendants (Berry, 2006).
Interaction between pregnant women and TBAs influences women’s choices of place of birth and the type of support they will get. The TBAs have a high social standing and are available in the villages. The financial burden attached to a professionally attended birth is reduced with the choice of a home birth. It appears that adequate staff in maternity care promotes good behaviour by some health care personnel who might otherwise act unprofessionally (Storeng et al., 2008). Hence, studies show ample evidence regarding reasons why women do not seek skilled birth assistance at the first sign of difficulty (Blum, Sharmin, & Ronmans, 2006). It is argued that the problem is not, as illustrated by a study of the Mayan midwives, their clients and families, or a lack of an understanding of biomedical information about dangers in birth. Instead the information shows that some women reject health care services because they are either not available, are inaccessible or expensive (Titaley, Hunter, Dibley, & Heywood, 2010).

Several authors argue that proving adequate training for TBAs and integrating them as part of a formal healthcare system can enable them to provide substantial and sustainable improvement in pregnancy outcomes for women (Chamberlain & Watt, 2008; Darkwah, 2010; Replogle, 2007; Sibley et al., 2007). For instance, Dietsch conducted an exploratory qualitative study and obtained data through semi structured interviews in Western Kenya. Eighty-four TBAs were interviewed about their role and relationships with skilled birth attendants. This study concluded that skilled birth attendants used their power to control, manipulate and mistreat high-risk women referred to health care facility and also TBAs who accompanied these women. Dietsch believes that when TBAs are respected as equal partners in saving lives of childbearing women rather than being perceived as unskilled and under-performers (Dietsch, 2010), then their contributions to maternal health will assist in reducing MMR. Other social factors should be addressed too gender inequity, poverty and infrastructure should also be addressed. In Samoan formal health system, the TBAs are part of the formal health care system and recognise the commitment of local TBAs towards combating maternal mortality in the drive to meet the fifth MDG.

**Other considerations towards maternal health improvement**

Hogan et al (2010) reviewed maternal mortality in 181 countries from 1980-2008, identifying progress made towards the fifth MDG. They found exceptional progress in reducing MMR in four countries: Bolivia (Campbell & Graham, 2006), Yunnan in China (Li, Luo, Deng, Jacoby, & de Klerk, 2007), Egypt and Jamaica (Maine, 2007). All had halved MMR in less than ten years.

**Free maternal health care services**

In Bolivia (Farmer & Kilpatrick, 2009) the focus was on access to emergency obstetric care and skilled birth attendants. The term emergency obstetric care (EmOC) was coined by the White Ribbon Alliance as the type of maternal service which responds adequately to unexpected complications in
pregnant women, such as haemorrhage and obstructed labour. Treatments include blood transfusion, anaesthesia, and surgery (Bailey, Paxton, Lobis, & Fry, 2006). EmOC was the common intervention. With improved training, midwifery care, medications, equipment and advocacy, maternal mortality can be reduced (Carolan & Hodnett, 2007).

In Yunnan, one of the poorest provinces in southwest China, the MMR was twice the national average (56.2/100,000 live births), and in its remote mountain regions, the rate was five times higher. In this area the MMR declined in the 1990s at a rate of 3.0% per year. Not surprisingly, poverty and illiteracy were associated with higher MMRs. The key interventions in Yunnan Province were free access to skilled prenatal and obstetric care.

In Egypt (AbouZahr & Wardlaw, 2009), the great majority of women depended on publicly funded maternal health care. In addition, Egypt’s ability to reduce its maternal mortality relied on skilled birth attendance and midwifery, and this meant the phasing out of TBAs. Egypt’s reforms addressed critical gaps, attempting to reduce disparities between different groups through special attention to the poor and disadvantaged populations. Democratic processes were being established before the recent political unrest.

**Emergency obstetric care in acute settings**

Although this review focuses on primary health care, this section will mention ways in which acute healthcare facilities play a part in saving lives of childbearing women and their babies. As stated earlier, to function effectively, every EmOC facility should have enough drugs as well as the capacity for caesarean sections, anaesthesia, blood transfusions, the management of complicated pregnancies and labour, manual removal of the placenta and specialised neonatal care (Kongnyuy, Hofman, & Van Den Broek, 2009; Rath et al., 2007).

Referrals of high risk cases to the EmOC facility are critical, so it must be possible for all women to accessible them irrespective of their geography (WHO, 2009). Moreover, it is crucial to know which groups of women are not using the EmOC services. There may be many reasons, for instance distance, ethnic or religious groups, education, social and economic status (Ben Romdhane & Grenier, 2009; Boerma, 2008). But there are solutions. If transport is difficult, encourage the community to help. If the roads need upgrading, ask the government for help. If medical attention is poor or unavailable, then women will feel that seeking care is pointless. If people do not use existing facilities because staff fail to show respect, the matter is serious and the staff need to be reminded to act professionally. When women cannot afford emergency services, alternative measures must be devised (Dhar et al., 2009).
Community-based maternity interventions

There are several community-based interventions that are working effectively in some developing countries. A recent WHO report recommends community participation to provide equal services to vulnerable populations (World Health Organisation, 2011). Examples are health programs for adolescents, education for girls, health information for couples, malaria control programs, birthing kits, reducing poverty, water and sanitation, nutrition and dietary supplements.

Health programs for adolescents

Adolescents are one of the highly vulnerable groups around the globe (Bouris et al., 2010). There are unwanted teenage pregnancies and many adolescents drop out of school (Reynolds, Wong, & Tucker, 2006). Widespread adolescent pregnancies, especially in developing countries, cause social, economic, and physical problems, including high rates of maternal mortality (Hill, Dodd, & Dashdorj, 2006). Findings showed clear examples. Problems faced by teenagers who become young parents include parental and social disapproval, high costs of parenting, diminished social life and isolation, and the constant demands of school, work, and parenting. There are few opportunities for personal development and focus on career goals, and limited financial resources (Herrman 2006).

Researchers suggest that immediate family members of adolescents do exert strong influence in girls ‘beliefs and behaviour regarding sex and pregnancy (Bohr, Halpert, Chan, Lishak, & Brightling, 2010; Bouris et al., 2010; Hill, Dodd, & Dashdorj, 2006). For instance, the qualitative study in Jamaica found that mothers and the guardians of adolescent girls influence their daughters’ sexual beliefs and behaviour (Hutchinson et al., 2012). Focus groups were conducted with 14- to 18-year-old girls and their mothers or female guardians. Groups had 6 to 10 participants and the outcome of the study revealed four major maternal influences: mother-daughter relationship quality, mother-daughter sexual communication, monitoring or supervision, and maternal sexual role modelling. Mothers’ and daughters’ reports were consistent: both groups identified positive and negative influences within each category. The study concluded that some maternal influences are positive and promote good health, while others are negative (Bouris et al., 2010). Its results were incorporated into the design of a family-based intervention tailored to the needs of urban Jamaican adolescent girls and their mothers.

Education of girls

Universal education for all is also one of the MDGs (Munch, 2006). Studies have confirmed that educated girls have a lower risk of dying from pregnancy-related complications than those who are not formally educated (Pernilla, Dejin-Karlsson, & Uden, 2006; Schooley, Mundt, Wagner, Fullerton, & O'Donnell, 2009; Sharp et al., 2009; Simkhada, Teijlingen, Porter, & Simkhada, 2008). In spite of this evidence, some developing countries are slow in providing schooling for girls (Darkwah, 2010),
who are more prone to teen marriages than their counterparts who proceed to higher education (Natoli, Renzaho, & Rinaudo, 2008).

**Health information for couples**

One of the commonest causes of maternal mortality is deciding too late to seek medical care (Killewo, Anwar, Bashir, Yunus, & Chakraborty, 2006; Ozumba & Nwogu-Ikojo, 2008; Rosenstein, Romero, & Ramos, 2008). Pakistan, for example, is challenged by a high maternal mortality, especially in the rural areas. The delay in deciding to seek medical care is significant (Midhet & Becker, 2010). An experimental study was conducted in rural Pakistan. Women were given information on safe motherhood through illustrated booklets and audiocassettes. TBAs were trained in clean birthing and to recognise obstetric and newborn complications. Emergency transport was established (Midhet & Becker, 2010). Moreover, the husbands were also taught about safe motherhood and family planning and received education materials. Pre- and post-intervention surveys on selected maternal and neonatal health indicators were conducted. Two years later, a district-wide survey measured the impact of the interventions. The findings concluded that women in the intervention clusters received prenatal care and iron therapy more frequently than others. Rural communities whose couples practise safe motherhood have better health indicators (Kaiser, Kaiser, & Barry, 2009; Midhet & Becker, 2010; Mola, 2009; Murray, 2007).

**Malaria control programs**

Malaria is an endemic disease throughout the tropics is a major killer, but it is preventable. Not only does malaria threaten the life of a mother, it increases the risk of anaemia, stillbirth, spontaneous abortion, low birth weight and neonatal death (Mbonye, Neema, & Magnussen, 2006). At a global level, a program called ‘roll back malaria’ (RBM) has been implemented (Yartey, 2006). This author reports on a number of interventions by the WHO that have proven effective in some African countries. They include both preventive and curative management. Some families use insecticide to treat mosquito nets. Antimalarial treatment was given to women in malarial areas at the antenatal clinic.

This strategy, however, was limited in two ways. First, these women often failed to continue with treatment until their pregnancy reached full term. Second, there is an increasing risk of resistance to the chloroquine drug. Mbonye et al argue that such problems can be resolved if women are advised about the benefits of taking chloroquine for themselves and their unborn babies (Mbonye, Neema, & Magnussen, 2006). Drug resistance occurs when women fail to take their prescribed medication for the full time so the body builds resistance to it. They need factual information, particularly on the benefits of taking medications properly.
Usage of insecticide-treated nets has proven to be effective in controlling malaria. This same study from West Kenya demonstrates that women who were protected by these nets gave birth to 25% fewer low birth weight and premature babies than those who were unprotected (Yartey, 2006). The challenge to have this protection rests upon its availability and cost. It is argued that these nets should be given to women early in pregnancy and should be continued for two months postpartum. In most developing countries, accessing antenatal care is an enduring challenge, because of distance, lack of transport or poverty.

**Birthing kits**

Birth kits (Hundley, Avan, Braunholtz, Fitzmaurice, & Graham, 2010; Winawi et al., 2006; Wood, 2006) are the subject of three reviews. Packaged as small kits, each contains a piece of soap, a new razor to cut the umbilical cord, and a medium size piece of plastic sheet on which the woman can give birth. A clean razor blade helps reduce neonatal tetanus and possibly reduces maternal sepsis. Wood et al evaluated birth kits in Tanzania and reported that maternal sepsis had reduced dramatically when these birthing kits were used. In PNG, birthing kits have been used in a few locations including Milne bay Province. There is, however, a need to evaluate the effectiveness of these birthing kits in reducing puerperal sepsis (Haggaz, 2007; Khan, Wojdyla, Say, Gülmezoglu, & Van Look, 2006).

**Reducing poverty**

Poverty reduction is one of the eight MDGs as stipulated by the UN. Failure to reduce poverty will continue to cause women to suffer the consequences of low status and the denial of basic human rights (Langford, 2010) which affects development. MDGs call for immediate efforts to reduce poverty, improve health, especially of girls and women, and foster development in the world’s poorest nations (Thompson, 2007).

**Water and sanitation**

In developing countries, a lack of safe drinking water and sanitation contribute to ill health especially in rural communities (Schmidt et al., 2009). Mothers and children tend to be affected most. As pointed out earlier, unequal distribution of resources between urban and rural settings creates disparity that affects maternal health. Many studies have confirmed the benefits of running water. Safe Motherhood programs (Barker, Bird, Pradhan, & Shakya, 2007; Islam, 2007; Starrs, 2006) advocate the 3Cs that stand for ‘clean hands, clean environment and clean birth’. Successful implementation of all 3 Cs will lead to positive outcomes for women (Muchukuri & Grenier, 2009),
Nutrition and dietary supplements

A recent study by Barger (2010) shows that diets and patterns of eating during pregnancy have a direct effect on the physiology of the mother, and on perinatal outcomes. This same author recommends a Mediterranean diet high in plants and nuts, to improve ovulatory fertility, decrease preterm births and lower the risk of gestational diabetes. Women in the USA generally have adequate levels of most dietary essentials, but the poorer populations require vitamins D, folate and iodine. Interestingly, vitamin D has been increasingly shown to have benefit not only for bone health but also regulation of glucose, immune function and good uterine contractility in labour (Barger, 2010). Childbearing women aged between 15 and 49 years (West Jr & Christian, 2008) require a daily intake of multivitamins. In many developing countries these recommended vitamins are not readily available, but even if they were, poorer women could not afford them (Barger, 2010; Green-Raleigh, Carter, Mulinare, Prue, & Petrini, 2006). Therefore, what these women need is to make good use of locally available foods to maintain good nutrition, especially during pregnancy. They can benefit from practical cooking demonstrations and information on nutrition.

Conclusion

Some practical approaches to reduce maternal mortality are family planning, antenatal care, skilled birth attendants and TBAs. Progress toward the fifth MDG can be realised when women have access to antenatal care which is culturally appropriate and affordable (Jamil et al., 2008). Many safe motherhood programs have been implemented around the globe to promote maternal health and thus decrease the high MMRs. Most important is the need to address social health determinant that play a vital role in promoting health in developing countries. Many success stories have occurred in developing nations that PNG could learn from and make headway towards meeting the fifth MDG by 2015. In the next chapter I will discuss the PAR methodology and provide a rationale for its selection in this study.
Chapter Four: Participatory Action Research: A justification of my chosen methodology
Introduction

This chapter explores the PAR approach, its principles, methodology and practice and explains why I selected this approach for this inquiry. I will first, summarise some of the origins of the PAR approach and link these with the community-based health work in Lomakunauru, the main setting for this research. This will set the scene for a discussion about Koch and Kralik’s work. Finally, I will briefly introduce the methods I have used which will be discussed in more detail in subsequent chapters.

Participatory Action Research

PAR grew out of an approach called ‘action research’ which was first developed by Kurt Lewin in 1946 (Lewin, 1946). Action research was applied in education and management in developed countries including USA, UK and Australia (Kemmis & McTaggart, 2008). As it expanded over time, action research broadened its application across many fields and more specific names were given to these applications, including participatory research, collaborative inquiry, emancipatory research, action learning and contextual action research, but all are variations on a similar theme (O’Brien, 2001).

PAR started in some of the nations of South America, and in Africa and Asia (Brydon-Miller, Kral, Maguire, Noffke, & Sabhlok, 2011; McIntyre, 2008). Its pioneers included Fernandes, Tandon, Hall, Fals-Borda and Rahman. PAR began as a community development approach. It is not easy to define the meaning of PAR (Liamputtong, 2013). There are different types of PAR and researchers can choose the one they need (Reason & Bradbury, 2001). According to Liamputtong, writing about PAR and action research,

Theoretical basis of both approaches in social science is similar; both focus on ‘emancipation, collaboration and empowerment …The common ground for the development of (PAR) was concern about marked inequalities in the distribution of resources and power between those who are privileged and dominant and those who are marginalised and oppressed. It was, and still is, believed that in order to fight oppression and to alleviate poverty, the feeling of helplessness associated with oppression must be addressed” (Liamputtong, 2013, p. 184)

The focus of PAR is collaboration with those for whom these issues are part of everyday life, and who become co-researchers. PAR is conducted in real-world situations and aims to address real problems (Palshaaugen, 2006; Stringer, 2004; Wicks & Reason, 2009a). Claims and assumptions associated with PAR are that the nature of social reality is relational and inter-subjective and its claims about knowledge-generating processes are that human (inter) action and its understanding are always closely connected (Wicks & Reason, 2009a).

Although Eikeland (2006) and Williamson & Prosser (2002) mention six principles of PAR, only two of those are relevant. They are reflexive critique and collaborative resource. Reflexive critique requires participants to reflect on vital matters and clarify their own thinking so that they can avoid
bias and false assumptions, and reach valid judgments. Collaborative resource treats the women in this study as ‘research participants’ or ‘co-researchers,’ each person’s ideas being equally significant for creating interpretive analysis of participants’ stories. PAR is thus a collective, self-reflective inquiry to understand and improve women’s lives by developing new practices or improving existing ones. This reflective process of PAR leads to action, and is shaped by an understanding of people’s history, culture, local context and social relationships (McIntyre, 2008).

PAR methodology is demanding and involves generating and analysing data systematically (Koch, 2006) through responsive reflection and a documented account of the research process itself. This process is relational, democratic, culturally sensitive and reciprocal as researchers and participants share experiences and learn from each other. PAR processes are dynamic and allow researchers to observe progress towards change (Burstein, Bryan, & Chao, 2005).

Practitioners of PAR aim to have immediate relevance for real life, because contextual variables are acknowledged and are considered for possible action, rather than ‘controlled’ as in the positivist research approach. Individuals and communities are viewed within their local context and are personally involved in the research. Together they construct meaning and implications of the issue being studied for possible change. They are meant to be partners in the process and devise possible solutions aimed at resolving the issue at hand (Kemmis, 2006).

PAR is gaining popularity in the health field as a research methodology for two main reasons (de Koning and Martin (1996, p. 1). First, “there is a gap between the perceptions and attitudes toward illness held by health care professionals and lay people. Too often the biomedical framework of illness and diseases is in marked contrast to the understanding embedded in a local culture. Second, there are many factors – cultural, historical, socio-economic and political that are not easily measured in biomedical terms but that can have an impact on efforts to improve people’s health”.

Community-based participatory research (CBPR) in health

In this section PAR is linked with a community-based research in the health field. Central to this thesis is its situations in community development and health promotion context, and as mentioned before, research approaches are always dependent on context (Rosato et al., 2008). There are numerous definitions and descriptions of CBPR (Wright, Corner, Hopkinson, & Foster, 2006) but the one adopted and elaborated by Minkler and Wallerstein (2003) has similar elements to PAR as described above.

CBPR (in health) fosters a collaborative process that recognises the equality of all partners involved in the research and recognizes the unique strengths that each one brings. As well, it starts with a health and research issue which is important and relevant to the community with the aim of combining its
members’ knowledge and instigating their action for social change towards improving health (Baum, MacDougall, & Smith, 2006).

There are a number of inquiry approaches that are participative, experiential and action-oriented (Reason and Bradbury 2001), the participatory referring to researchers and community members working together towards a common goal; the experiential leaning towards action as opposed to abstract theory. Baum et al, (2008) see PAR as originating in democratic decision-making. It reflects and questions the nature of knowledge and the extent to which knowledge can favour the powerful. It suggests that experience is a basis of knowing and that experiential learning can lead to a genuine knowledge that influences practice.

In developing countries educators should draw on these intellectual perspectives to establish forms of research that are empathetic to the collaborative nature of learning. The work of Freire, (Freire, 1993) as highlighted below, illustrates how PAR can liberate the most disadvantaged communities towards reflecting upon their own lives and understanding the major causes for their oppression.

Researching with communities could flourish if key principles of CBPR are followed (Boser, 2006; Minkler & Wallerstein, 2003) and I will discuss five of them.

- Firstly, the community is recognised as a unit of identity, explicitly fostering research with communities.
- Secondly, by building on strengths and resources within the community, researcher/s identify, support and reinforce existing social structures, processes, knowledge and strengths, encouraging collaboration to improve their lives. Community participation may involve applying skills from outside the community, but should focus on issues identified by the community and create situations in which all parties can influence the entire research (Stringer, 2004).
- Thirdly, the researcher should recognize that not all marginalised communities are the same. They should get to know community members so they can share information, resources and make decision collectively (Israel, Schultz, Parker, & Adam, 1998). Understanding the realities of the ways in which women live their daily lives through their individual stories and through group meetings leads to the recognition that maternal health promotion is vital in the community and that leaders (mostly men) should align with the women to implement actions proposed by them (Tiebere et al., 2007; Williams et al., 2005).
- Fourthly, CBPR – like PAR - involves a cyclical process; it involves developing rapport and partnership in all phases of the research so the process will succeed (Varcoe, 2006).
- Finally, researchers should share their findings with all partners, acknowledge all contributions and ensure the research participants own the new knowledge (Koch & Kralik, 2002).
2006). Through the women’s stories, knowledge is gained and acknowledged by both researcher and participants, and can drive maternal health reforms.

Like PAR, CBPR represents a holistic approach to problem-solving, rather than just a single method for collecting and analysing data (Eruera, 2010). Several methods or techniques may be used in any PAR/CBPR project. Generally, common methods used in qualitative research include keeping a research journal, collecting documents and analysing them, participant observation, structured and unstructured interviews and case studies (Porter, 2007).

**Why I have used Participatory Action Research methodology in this study**

My personal values of democracy, equal opportunity and education as stated in Chapter One shaped my decisions. I researched with indigenous women because I am eager to support their voices to be heard by the mainstream health system of PNG. In developing countries, gender inequality and suppression of women’s rights contribute to their low self-esteem and poverty. Many are powerless to voice their health concerns, to mobilise and galvanise action (McDermott, 2011).

I contemplated PAR as the approach to use for this inquiry; because my worldview is similar to Tsey’s argument:

PAR sees people as the experts in their own lives, who should necessarily be actively involved in decision-making, planning, and then both implementing and reviewing change. Research employing PAR as its methodology is not distanced from daily experiences. It is therefore, an empowering methodology to conventional research practices that have been perceived in some contexts as acts of colonization, whereby research and policy agendas were imposed on a local group or community by people far removed from local concerns or interests. It is a suitable methodology for research involving marginalised people such as indigenous communities and poor people (Tsey, 2004, p70).

Further, Freire, a leading educator in the 1960s in his ‘Pedagogy of the Oppressed’ (Freire, 1993) broke the tradition of generating data about oppressed people; he researched alongside the poor, thus enabling them to realise their capabilities in spite of their oppression as disenfranchised peasants and transforming their lives. Paulo Freire’s methodology (Freire, 1993) continues to assist in empowering countless impoverished and illiterate people (Koch & Kralik, 2006).

Whilst sceptics of PAR refute such an approach, Paulo Freire (Freire, 1993), argued that an authoritarian teacher-pupil model fails to develop students’ critical awareness which is likely to affect them as adults. He advocated for an education program grounded in the actual experiences of learners and in on-going shared investigation (Freire, 1993). He concludes that all people, no matter how impoverished or illiterate, can develop self-awareness, which will free them from suppression so they become active rather than passive objects in a world.

Freire (1993) has offered evidence that by working collaboratively with people, they respond actively to change. Freire’s methodology, as it is rooted in participants’ collaboration in research, has had
great implications for education, research and practice in different fields, including health (Khanlou & Peter, 2005; MacLaren, 2006).

The subsequent chapters will detail how Lomakunauru women have also learned through a PAR process, using it as an empowering approach to explore ways of improving maternal health. Involving women in exploring maternal mortality and health through a participatory process is important for at least three reasons. Firstly, participating women share their personal stories of pregnancy, having the chance to think about and reflect on their childbearing experiences. They then can prioritise actions to improve maternal health or reduce maternal mortality and morbidity in the village. Secondly, mobilising women in participatory groups offers a powerful weapon for change, as it strengthens their resilience to address significant problems in their lives. Becoming pregnant and giving birth under the most trying circumstances enables them to develop inner strengths, something which women usually do not reflect on and therefore do not realise. By storytelling and the validation of their stories, all participants will realise and become comfortable with the strengths they possess. Thirdly, it is my belief that maternal mortality in PNG will only be curbed effectively when women themselves are united at all levels of society and voice their concern to the GoPNG.

The participatory process with village and educated women alike will build their awareness and strengthen their capacity to act. As collaborative strategies draw on the collective capacity in communities to solve problems, they may also be effective in reducing maternal mortality (Padmanaban, Raman, & Mavalankar, 2009a).

The tragedy of maternal mortality does not just represent a health problem as witnessed for centuries, it represents a multi-dimensional issue that must be addressed through a more encompassing approach (Barker, Bird, Pradhan, & Shakya, 2007). Without healthy adult women, there will be no healthy babies and strong adults to develop societies around the globe (Bryce, Coitinho, Darnton-Hill, Pelletier, & Pinstrup-Andersen, 2008).

One of the aims of this study is to promote a balance between a top-down administrative process and a bottom-up local village response. To promote maternal health care in the village, both approaches are essential and should complement each other to be efficient and sustainable. But village women must realise that as citizens of PNG, they deserve better health services from the GoPNG. This government, on its side, cannot know the problems women experience as mothers unless those women are involved in decisions, having a voice about health service reforms in their local communities. A strong and committed political will is needed. There are huge challenges in PNG that hinder such changes, including gender inequality, violence against women and poverty (Jo, 2009b).

Again, there may be scepticism about community development and change at the grassroots level because of the diverse culture, languages and rugged terrain of PNG. But when there is unity to act for
a common purpose, one of the goals of community development and PAR, success is achievable through the careful implementation of its processes.

Clearly, pregnancy and childbirth are natural and should be joyful events. The literature reports, however, tell us that childbearing can be burdensome, fraught with physical and emotional strain, claiming lives prematurely or inflicting chronic debilitating problems on women (McClure et al., 2007). As shown in Chapter One, seeing the problem and experiencing it personally, led me to want to alleviate suffering amongst women of PNG and I was convinced that PAR processes could enable me to act alongside women and that together we could make a difference in saving their lives and their babies.

Borbasi, Jackson and Wilkes (2005) coined the term situation to describe people’s daily living contexts, contexts that shape the ways in which women are connected with the local environment. This information has been vital for this study. I gathered contextual data through my field journal, informal conversations, formal interviews with women and by examining related literature. The primary data I collected should be considered as contextualized life events for the women I worked with (Al-Makhamreh & Lewando-Hundt, 2008). In the present study, one such life event is the women’s experience of pregnancy and birthing which they have either at home or in health facilities (health centre or hospital).

A woman’s life circumstances or situation matter to her in many ways: a woman is a human being with significant beliefs and values (Bamberg, 2006; Koch & Kralik, 2006). For the first time women were able to share their life stories with someone whom they trusted, who could possibly facilitate change. Normally, pregnancy-related complications have been kept hidden by women because of their sensitive nature. Any critical decisions to act are determined by their immediate context. This is what Kidd and Kral (2005) refer to as a situated liberation.

For Coglan and Shani (2008), the PAR approach presented a means to explore and combat maternal mortality together with the village women, enabling them to establish a means to take action in their own lives and communities. Although ideally PAR should involve full participation of co-researchers in all stages of the process (Koch & Kralik, 2006), for the purpose of doing this study for my PhD degree, I formulated the research question before conducting the study with participants. I will now detail the specific approach of Koch and Kralik (2006) to PAR as applied to this study.

**Koch and Kralik’s (2006) approach to Participatory Action Research**

I will discuss the Koch and Kralik (2006) PAR framework in more detail in later chapters. Here I will explain the broad approach and the justification of its use for this thesis. The writings of Koch and Kralik are very much underpinned by the notion of liberation and relate to the thoughts of Freire and others linking disadvantage and oppression with unjust social structures.
In Koch and Kralik’s (2006) version of PAR, ‘look, think and act’ is coined as a systematic approach to data generation and analysis. As pointed out earlier, ‘looking’ refers to a storytelling phase, which is the main means for gathering information. Looking also means observing the setting or the situation, gathering information, defining and describing the issue. Storytelling allowed participants’ to voice their own pregnancy and birthing experiences. Peoples’ perspectives reflect who they are, their cultures and their life experiences. From a researcher’s perspective, looking may also mean building a picture of the research setting and relevant events, identifying the key stakeholders in the research.

Thinking, in turn, relates to the systematic reflection on the stories both by the researcher and by the group of participants. Thinking is stimulated as the researcher/facilitator asks participants to reflect on the emerging picture, contributing their own stories and listening to those of others and asking: What is happening here? and Why are things as they are? Facilitators encourage participants to engage in dialogue, so as to develop mutually acceptable accounts of their experiences. In this way participants can learn from the experiences of others, but at the same time each person has an opportunity to make her voice heard.

Finally, Acting points at the expectation that participants will instigate changes in their living circumstances, and in the context which conditions those circumstances and experiences, reforms can be attempted and achieved. Data generation, reflection and ensuing actions relate closely to one another (Koch & Kralik, 2006).

Storytelling is an ancient mode of communication and is well understood by the indigenous people of Mussau and the neighbouring communities. It is a common way for the elders to teach oral histories and other information to the younger people. It is highly appropriate to adopt Koch and Kralik’s approach as storytelling is the ideal starting point in engaging participants. One of the main aims of the study was to listen to women’s voices through long or short stories, initially told by four Newcastle-based women and later by ten village women. Their stories are told in Chapters Six and Eight and shed light on motherhood experiences in PNG.

My primary goal in this work is to share the women’s stories so that the world can learn about their plight because it is unacceptable that women in the 21st century are still struggling when they are pregnant or giving birth, many suffering from horrible experiences and premature deaths. The use of participatory approaches intended to create awareness about maternal mortality and empowerment was achieved by directing women towards exploring their circumstances, the contexts of their lives and their childbearing experiences (Koch & Kralik, 2006).
Three working principles are inherent in the Koch and Kralik PAR approach: collaboration and advocacy, consciousness-raising and disclosure of experiences. These principles gave me the confidence that they would lead to the anticipated and necessary changes.

**Collaboration and advocacy**

The term *collaboration* indicates that two or more people work together to achieve the same action, purpose or product (Good, Hollingworth, & Maxwell, 2008). Talking about collaboration is simple but applying it in practice is challenging (Palshaaugen, 2006). According to Percy (2005), the purpose of collaboration is to empower the oppressed to come to understand and change their oppressive realities. Advocacy means to speak up on behalf of others who cannot speak for themselves (Armour, 2009; Lagan, Knights, Barton, & Boyce, 2009).

Collaborative participation embraced by communities is directed towards changing existing unequal and disempowering social structures, focusing on why the ‘powerless’ are excluded from major decision-making, thus engaging in consciousness-raising to assist the vulnerable in becoming empowered by building on and using their own knowledge to transform their situation (Coghlan & Casey, 2001).

Collaboration may be attained only if the group has built up sufficient group cohesion, which means that the researcher has already made significant strides with individuals (Liamputtong, 2013). Through working together, members display respect, commitment and cooperation for and with each other in order to implement the cycles of PAR advocated by Koch and Kralik (2006). Further, if groups are to become change agents, they should possess a strong sense of group identity and belonging. Failure to achieve this means that members cannot influence those who hold power. Cohesive groups are a good source of emotional and social support for their members (Boser, 2006). The benefits that are felt by members of the group include a feeling of acceptance, which gives them the confidence to believe that reform is attainable.

PAR upholds the creation of equal relationships especially when advocating that power be shared deliberately between the researcher and the co-researchers. The former avoids any forms of unequal power relationships with the latter to maintain equal participation (Goyder et al., 2005).

**Consciousness-raising**

Koch and Kralik (2006) write that consciousness-raising is about enabling participants to acknowledge disparities in available health care services and is based on knowledge gained through the group participation. This is possible because reciprocity in the PAR approach enables all members of the group to be equal. As a researcher, I had to avoid any appearance of power within the group. I shared my own birthing experiences, assuring participants that they had the right to respond to or
refuse to answer any questions as they chose, and I listened to the women rather than imposing my own meanings on their experiences. I valued the women’s knowledge shared through personal stories of childbearing experiences and discussion in the groups.

Reciprocity allows all participants, including researchers, to establish the group as an entity (Maiter, Simich, Jacobson, & Wise, 2008). At the same time, participants become aware of their situation through participating in discussion. They can then aim to transform their situations (Kamali, 2007).

**Disclosure of childbearing experiences**

Group members’ engagement with and disclosure of their personal and often sensitive stories about pregnancy and birthing can only gradually develop as it is culturally perceived to be ‘private’ and it requires respect within the PAR group and the appropriate atmosphere to become possible.

Before this level is reached, members usually engage in superficial topics that are less personal and non-provocative (Kidd & Kral, 2005). During the early stages of the group, members form impressions of one another through dialogues. Later they can delve deeper and taboo topics involving personal matters can be shared openly. This confidence is essential to stimulate participants’ ability to speak out in public and enable their action-in-the world leading to more wide-spread changes in their lives.

**Conclusion**

The PAR origin, methodology, principles and practice have been discussed. The Koch and Kralik’s work was the most appealing so I adopted their framework. PAR is concerned about marked inequalities displayed through unequal distribution of resources.

PAR has been used in the health arena because there is a difference between the perceptions of health personnel and those of lay people towards illness. The biomedical framework does not consider local cultural, historical, socio-economic and political issues as illness. To measure health outcomes, these factors need consideration.

CBPR (in health) is a collaborative process which upholds equal participation of all partners in the research process and it recognizes the unique strengths that each person brings. Freire (1993) proved that by working with people, they reflect upon their lives, and identify ways to respond toward change.

Success in researching with communities is possible when the key principles of CBPR are adhered to. A woman’s life matters and she is a human being who upholds beliefs and values. Creating self-awareness among women enables them to gain a better understanding of why there is inequality in social structures, and why the ‘powerless’ are excluded from major decision-making. When women
are empowered, through building on and using their knowledge, they can transform their oppressive situations. The PAR methodology I used will be discussed in the chapter to follow.
Chapter Five: The Research Process
Introduction

This chapter describes the PAR process and will be presented in two sections. The first section outlines the preparation for Phase One of this study. This phase was a research apprenticeship in the use of Koch and Kralik’s (2006) PAR methodology where I explored possibilities for promoting maternal health with four participants from PNG who lived in Newcastle, Australia. The second section describes the preparation undertaken for Phase Two of the study involving researching alongside village women at Lomakunauru, NIP, PNG. The research process discussed in the following sections entails the preparation, recruitment process, ethical considerations, data generation and analysis. I will also discuss the ethical considerations, including trustworthiness, for the study later in this chapter. Ethical approval for Phases One and Two of this study was granted by the Human Research Ethics Committee (HREC), University of Newcastle (UON), Australia and the research committee at PAU, PNG. The approval documentations are supplied in Appendix 1 (UON- HREC) and PAU letter in Appendix 22.


The Koch and Kralik (2006) PAR methodology consists of two unique stages and the discussion relates to Phase One and Phase Two in this chapter. Stage One is storytelling and is done as one-to-one interviews, feedback and construction of a storyline in collaboration with participants. Stage Two is researching alongside participants in a group following the cyclical processes of ‘looking, thinking, and acting’ as an iterative process toward reform (Koch & Kralik, 2006).

As discussed in the previous chapter, there are many versions of PAR. But Koch and Kralik’s (2006) methodology was most appealing to me because of its storytelling component. In addition, the village women are semi-literate. Therefore, an oral culture is embraced, and it was considered highly appropriate to use a storytelling approach.

As mentioned in the previous chapter, action research and its participatory derivatives have long been used in developing countries (Brydon-Miller, Kral, Maguire, Noffke, & Sabhlok, 2011). Participatory approaches to the promotion of health have been advocated since 1978 through the Alma Ata declaration, in which the WHO emphasised the need for citizen participation in Primary Health Care. Participants of PAR can and do mobilize strategies aimed at reducing maternal mortality because it draws on the collective capacity in communities to solve problems (Bhutta et al., 2008; Manandhar et al., 2004). Further, PAR is observed by Eruera (2012) as an orientation to research that recognises community members as experts about the phenomena of interest and allows the meaning and usefulness of research to be informed by their everyday experience and understanding.
In researching alongside PNG women I hoped to raise awareness about implications of maternal mortality and raise their expectations to promote human rights alongside improving maternal health, and so place additional pressures on the PNG government to act. Local actions are often sustained when women themselves take ownership of the agenda toward reform (Koch & Kralik, 2006). As discussed, this approach embraces collaborative participation by the community to initiate reform. Given the deliberation of PAR as expressed by Coglan & Shani (2008), this research approach presents a methodology which legitimates collaboration with women and explores ways to improve maternal health in Lomakunuaru, my research field setting. This PAR process was to be used as a means to explore maternal mortality alongside village women and together build capacity for taking action.

Recent literature has highlighted some principles to guide this inquiry for both Phase One and Phase Two. The principles that guided this inquiry are reiterated as rooted in my personal belief embedded in democratic principles. These democratic principles are similar to those identified by Koch and Kralik (2006) namely: social justice, social equity, freedom of speech and human rights, hence my participative world view. These principles support a democratic, collaborative approach to research that enables equal participation of all persons (facilitators/researchers and participants) in the research process (Koch & Kralik, 2006).

In the following I show how my application of PAR meets the demand for a systematic and rigorous data generation/analysis process, responsive reflection and a documented account of the research process whilst researching. According to Koch and Kralik (2006), PAR is a dynamic social process that:

- Requires that the researcher build relationships whilst researching with participants
- Engages participants in examining their own knowledge, understandings, skills and values
- Is practical
- Is collaborative
- Is reflective
- Can be emancipatory

### The Participatory Action Research Process

The process of PAR is generally thought of as spirals of self-reflective cycles which are relevant to Phase One and Phase Two in this chapter. PAR research groups create movement. ‘Look, think and act’ describes this cycle, where looking can be facilitated through asking participants to tell their story (Koch & Kralik, 2006). The researcher asks, ‘What is happening in this story?’ ‘What has the participant chosen to talk about?’ and, ‘What is important here?’ This story is analysed concurrently. Observations from the analysis are provided to the participant as feedback. Although these steps are
rarely linear, the researcher invites the participant to reflect on the feedback and continue with the story in subsequent interviews/group sessions. This is the ‘thinking’ phase.

Focusing on their lives often assists participants to make their experiences accessible for reflection, discussion and reconstruction. The learning process can be observed in what people do, how they interact with the world and with others, what they mean and what they value, and the language which people use to describe their world. As the story continues the participant may (or may not) decide on some actions to take. The researcher monitors the actions created within the action phase of the cycle. And the storytelling goes on and on ‘in cycles’, until both parties are satisfied with the end product. For the purpose of the research, closure is usually mutually agreed upon. The outcomes of these cycles are often personal growth and development for both researcher and participant. The same cycles apply to the participatory group process.

I will explain the preparation and processes that were undertaken before data generation commenced for Phase One and Phase Two of this study. I begin with Phase One. Ethical considerations are mentioned for both Phase One and Phase Two but with a slight variation which will be clarified below.

**Phase One: Apprenticeship in Participatory Action Research, Newcastle**

The Phase One study was to research alongside four PNG women volunteers living in Newcastle, Australia. The study aimed to use a PAR approach to explore ways of improving maternal health and to describe factors and contexts that are associated with maternal mortality in PNG. The aim was to explore ways of promoting maternal health with the four volunteers, then to use the PAR findings and process to support Phase Two of the study in PNG.

**Safety in the field, Newcastle**

An application for approval to conduct an off-site research was done as prescribed by the Health and Safety Department, UON. I was required to take necessary precautions whilst conducting a field study off the University campus to ensure my safety. I had to purchase a small alarm device which I later took with me when researching in the community. If I were attacked, the device would be switched on immediately to create a loud noise. This was done for two reasons. First, the frightened culprit would escape from the scene. Second, it was expected that people would come to my rescue if necessary.

It was a requirement that before I went to the participant’s home, I had to contact my supervisor and again after completing the interview, and just before I left the participant to return to my home. It was vital to comply with such requirement because of any unforeseen circumstances that might harm me while researching off-site.
The Phase One study was intended to trial the collaborative PAR process in the matters of recruitment, data generation (one-to-one interviews and storytelling), considering languages selected, verbatim transcription, analysis framework and feedback cycles, reflection, keeping a daily journal and its analysis and evaluation. It also enabled me to learn about facilitating and managing the PAR group process. Success and constraints indicators that were gleaned from the process were considered during preparation of a community development strategy in the Phase Two study in Lomakunauru village in NIP, PNG. My PhD supervisors at the University of Newcastle, Australia, provided guidance as I trialled the PAR process. I was a novice researcher. I was then ready to go to the field.

Research Questions

What can be done to improve maternal health in PNG? And further what can be done to improve maternal health within the local context of PNG rural villages?

Objectives

This study was conducted in two phases: the first phase of the study was an apprenticeship in Koch and Kralik’s (2006) PAR methodology while I was located in Newcastle, Australia for twelve months;

Phase One objectives were:

(1) To research with PNG women living in Newcastle and collaboratively explore ways to improve maternal health, with individual women initially in one-to-one interviews, and then collaboratively with this same group of women and supervisors.

(2) To engage in an apprenticeship phase using PAR. This meant I practised data generation using the ‘look, think and act’ framework, concurrent analysis, feedback cycles, and facilitating and managing PAR group dynamics towards action

(3) To consider what had been learnt during objectives 1 and 2 and identify success and constraint indicators in using PAR as a community development strategy in one PNG village.

I would research alongside village women in Lomakunauru, NIP, PNG for nine months in 2010. While researching alongside women in my village in PNG, the objectives for Phase Two were:

(4) To collaboratively explore maternal health, and to examine and describe factors and contexts that are associated with maternal mortality in Lomakunauru rural village.

(5) To build awareness about maternal mortality through the PAR process and collaboratively decide on reform strategies.
Phase One: Newcastle

In Phase One pilot study, a PAR approach was selected to explore ways to improve, describe and examine factors and contexts that are associated with maternal health and mortality in PNG. The aim was to explore ways of promoting maternal health with four women from PNG who live in Newcastle, to pilot the PAR approach and to use the PAR findings and process to support Phase Two of the study which was conducted in PNG at the end of 2009 and early 2010.

Phase One pilot also trialled the collaborative PAR process of data generation in both Tok Pisin and English, concurrent analysis and feedback, and facilitating and managing PAR group dynamics toward action. Based on the findings generated by the PAR group process, success and constraint indicators were identified for use in the preparation of a community development strategy in the Phase Two PAR study in Lomakunauru, PNG.

Participants were asked to:

Participate in one-on-one, face-to-face meetings/interviews with the researcher in order to tell their story relating to their pregnancy and birth experience. During the first one-to-one interview session women were asked to:

(1) Provide the following information:

    Age

    Marital status

    Religion

    Place of origin in PNG

    Total number of pregnancies that they had already

    Name of the hospital or health centre in PNG where they had their babies

    Number of children who are alive now

    Number of babies or children who have died

    The year in which they arrived in Australia (This question was not asked of Lomakunauru women).

(2) Allow the researcher to record the discussions.

(3) Talk about their experience of pregnancy and birthing in PNG.
During the one-to-one interviews participants were asked:

Would you tell me your story about your experience of pregnancy and birthing in PNG? I’m interested to know the context of your experience.

Can you describe it to me, whether it was in the village or town, what type of assistance you received, and anything else that will help me understand how women can birth safely in these circumstances?

**The types of prompt questions that were used to stimulate story telling were:**

Could you tell me more about …?

How did you feel about that?

I don’t quite understand, can you explain further?

Can you tell me what do you mean by …?

Would you tell me what matters to you?

I’m interested to know what is important to you, could you tell me?

Following interviews, the women were invited to meet as a PAR group (four sessions spaced every fortnight). Their participation in the group was entirely voluntary.

The purpose of bringing the group together was to share their pregnancy and birthing stories, if they wished, and to consider the commonalities of their experiences.

The women appointed a suitable venue and time for meetings. They were invited to communicate in their local language or English.

**Eligibility criteria**

The women who were included in the study met the following criteria:

1. They were 18 years old and over.
2. They had experienced pregnancy or birthing experience in PNG before they migrated to Australia. This was to ensure that the women’s experience of childbearing is embedded in the PNG context.
3. They communicated fluently in Tok Pisin or English.
4. They were willing to participate in the study.

**Exclusion criteria were as follows:**

- They were less than 18 years old.
• Single and married women who had not been pregnant in PNG prior to migrating to Australia.
• Pregnant women at the time of recruitment of participants.
• Those who suffered from a mental disorder or memory loss that could impair communication or produce unreliable data.

Recruitment of women PNG village

Whilst recruitment was planned for July 2009, this was not possible due to factors beyond my control. Firstly, the PNG, NDoH Research Committee did not give ethical clearance in PNG. This delayed recruitment in Lomakunauru, PNG. The year-end festive season was unfavourable for recruiting because the women were busy working and attending to their visiting family members who arrived in the village. So recruitment was commenced gradually around late December 2009 to January 2010. Although there were approximately thirty adult women who were eligible to participate in the study, only ten were recruited for one-to-one interviews. Two months were spent on recruitment of women. I will highlight how potential participants supported my study. First, as mentioned, I sought permission from the village elders and community leaders to conduct the study in Lomakunauru. I wrote a letter to the leader (See appendix 7). This letter spelt out the purpose of the study and my plan to recruit women of the village. Following the meeting, I was permitted to proceed with the recruitment process. The leaders advised me to speak with five women who held leadership roles in the local church, one from each of the five hamlets. These became third party members to recruit volunteers for my study. I adhered to their advice as a way of showing respect to the leaders. Mindful of the low level of literacy amongst the village women, I knew it was important to present information about the study through oral dialogue. It was unethical though to contact village women by myself to invite them to volunteer for the study. To do so might have meant that they participated out of a sense of personal obligation, simply because they knew me. Therefore, I used two ways of recruiting potential volunteers.

Firstly, I explained the purpose of the study to these five women leaders and handed them copies of the letter of expression of interest (see appendices 17-19 in English, Tok Pisin and Mussau language respectively). This letter was securely sealed in official UON envelopes. These third parties approached possible participants and gave them the letter. They also invited women to approach me in private if they were interested to know more about the study or wanted to participate in it. That is, to speak with me rather than through another person/s to organise an initial meeting as explained below. It was clearly emphasised that if a woman was interested, she should immediately talk with me. During this initial meeting I showed the information letter and explained its content, paying attention to the voluntary participation of the participants. Then I invited the woman to make comments or ask questions, to which I responded. If the woman consented to participate in the study,
she was shown a consent form as in appendices 14, 15 and 16 in English, Tok Pisin or Mussau local language or Tok Ples which was clearly explained to her. The interview commenced after she signed the form. If the interview was not possible immediately during the initial meeting, we negotiated a meeting schedule and a venue that was convenient for her. In fact, the same guidelines as shown earlier for the Phase One study were implemented in Phase Two. I also enquired about the woman’s family and considered whether her involvement in the study was supported, in particular by her husband. Although it was a matriarchal society, it was important that a husband be consulted by the woman about her interest in the study to enable his understanding and cooperation towards his wife’s participation. I emphasised to the women that we would be exploring the way in which maternal health could be improved, and, as this is women’s business, their involvement should be supported by their families. I explained that I was interested in their pregnancy and birthing stories. I wanted to meet with them on several occasions through one-to-one interviews. I also pointed out the invitation to attend PAR group meetings. There would be four or five meetings spaced over a fortnight so together we could share and explore ways in which to improve maternal health in the village through proposed reforms. Again individual participation was voluntary.

Secondly, the Lomakunauru village committee accepted my request to display three study posters on the notice boards in three different locations: church noticeboard, community building and the local primary school. The posters contained vital information about the aim of the study, which was written in English, Tok Pisin and the Mussau Tok Ples (See appendices 11, 12 and 13). It also listed information in relation to recruitment of local village women volunteers to research with me to explore ways ‘we’ can improve maternal health in the village. The posters became a source of social interest among the villagers who were now exposed to formal research, a new concept to grasp.

**Participant as co-researcher**

I explored the notion of participants as co-researchers in the sense that this study relied on their participation and on-going co-operation. The study objective was to research alongside real women. Without their involvement, this study would have been futile (Mandiyanike, 2009; Roth, Shani, & Leary, 2007). The ten women would provide valuable interview data. Only digitally recorded conversations with participants would be categorised as interviews, and their analysis were undertaken later in Chapters Eight and Nine. It was necessary to meet with each participant frequently. These ten women were to be interviewed several times, and I would spend additional time in daily conversations. I would also converse with many villagers, and notes from these conversations would be recorded in the field journal. I would listen to women’s stories and other informal conversations, and rely on my recall later the same day. I would made quick notes throughout the day,
and later at night attempts will be made to transfer these into my word processing files. This was going to be a difficult task to achieve because of lack of electricity to power the laptop computer.

**Power relations between researcher and participants**

It was necessary to meet three or four times with all the ten women, as well as the time I spent in daily conversations, both formal and informal, with some of the women and their families. Only after many conversations with them did the relationship of equality I sought would appear possible. It was only when the women felt comfortable with our relationship that they would share events regarding their pregnancy situation. My attempt to have equal relationship could be successful especially during participatory group occasions. I assured them that although ‘educated’, I was willing to listen to their own stories of childbearing.

**Ethical considerations**

Ethical considerations are relevant to the entire research process so ethical approval was required for this study as shown above, prior to conducting Phase Two of this study. Further, the Lomakunauru community building was suggested as the most suitable site for individual interviews and PAR group meetings. One of the ethical considerations involved gaining the participants' informed consent. Participants were informed about the nature of the study, the time commitments and their projected involvement, and were then asked to consider their participation. Later participants were requested to reconsider their consent before each interview.

That is, whether or not they would still want to be interviewed. Assurances were given about anonymity and the right to withdraw from the study at any time. Although the women had low levels of literacy, each participant would sign the consent at the initial interview before an interview was commenced.

Because of the nature of the study, there was always the possibility that some women could become distressed by relating their sad stories. I would use my clinical judgement to assess whether or not they needed counselling. In addition, I was prepared to suggest that participants talk with the church ministers and officials to allay their emotional distress.

Before the HREC approval in Newcastle, I translated a number of documents into Basic English, Tok Pisin and the Mussau Tok Ples languages, including the information letter and the consent form. These translated documents were verified by two persons who were not members of the research team. One verified the Tok Pisin language while another verified the Mussau Tok Ples language (see appendices 20 and 21). When the translation of documents and ethics application completely met HREC protocol, then permission for the Phase two study was granted. It was important to translate these as village women are non-native English speakers and most of them are semi-literate. It was
important that this group understood the information clearly in order to make an informed choice, that is, whether or not to participate in the study. Even the expression letter was written in Basic English, as well as the recruitment posters. All were written in Basic English and then translated to the Tok Pisin and Mussau Tok Ples languages.

On arrival in Lomakunauru, I talked personally with the male leaders and gave the letter outlining the purpose of the study. It was negotiated with the leaders that I utilise a number of women in the five hamlets to recruit volunteers for the study. This group is known and trusted by all the village women. I approached and invited the group and explained the study to them. Then the letter of expression of interest (Appendices 17, 18 and 19) was given to third party persons for potential participants.

I relied on personal support from my supervisors, whom I could contact only by telephone while I was in the village and by email when I travelled to Kavieng. I tried to plan for some of the ethical contingencies, and anticipated that the researcher and nurse roles would intertwine. The challenges that arose from the merging of the two roles of generating data and providing direct care to participants will be discussed in Chapter Eight.

As mentioned in Phase One, a slight variation of the ethics consideration will be pointed out below especially relating to cultural sensitivities for Phase Two in the PNG study.

**Voluntary participation**

All participants were informed of their right to withdraw from the study at any time without giving reasons. The study did not pose any risk that might threaten the participants’ general wellbeing. But there was a possibility that some might experience emotional discomfort or psychological distress. Those who might encounter those feelings during an interview had the right to terminate the interview. If participants needed assistance, I planned to offer that to them. In other words, if participants were referred to a support person such as the church counsellor or church pastor, I intended to follow up immediately the next day to assess the participant’s progress. This was vital to ensure that the needed assistance being sought was met satisfactorily.

**Informed consent**

Given low literacy rates, each participant was invited and encouraged to make any comments or ask questions to seek additional clarification on the matter prior to giving consent. As highlighted, the information regarding the study was delivered in a concise, simple way and made easy for participants to understand. Most importantly, these were discussed in the local language to increase understanding further for these semi-literate village women.
Anonymity

Although pseudonyms were selected by women and used throughout the study, an individual’s personal identity was also omitted from the response that she contributed. Participants and place names which were used and referred to were changed. Unlike the Newcastle women, the ten interviewees did not share their stories with the rest of the group members. A possible threat to maintaining the anonymity of all participants was envisaged because there were far too many women who joined the PAR group meetings. As an insider researcher, my judgment ruled that I should not allow individual women to share their personal stories of child birthing in the PAR group meeting. During PAR groups, the women, at the outset, set norms for the group. One of these was respect for each other’s views and keeping all information strictly within the PAR group.

Confidentiality

As stated, the UON, HREC required that all transcriptions and original tapes be stored safely in a secured filing cabinet in the School of Nursing and Midwifery, UON. This requirement was also applied for Phase Two study so data was kept in a securely locked place.

Protection from harm: If participants found a portion of the interview to be emotionally distressing, they had the right to terminate it.

Participants could be supported to access counselling from the appropriate person/s such as the personal ministries officer of the Lomakunauru local church depending on the nature and severity of the problem at hand.

Other specific ethical issues related to the study

I will briefly highlight a few specific areas that pertain in particular to the cultural aspects in dealing with ethical issues at Lomakunauru village.

Cultural sensitivity

This was the first formal research to be conducted in Lomakunauru village. Consequently I envisaged that some participants might harbour scepticism when they heard about the study, perhaps because of ignorance concerning formal research. A lack of exposure to methods of data generation was likely to generate questions about the study. To help the people overcome such thoughts, I planned to respond to any comments or questions raised concerning the study. This would allow an opportunity for me to elaborate on concerns that people articulate in relation to the study.

On the other hand, I was mindful that some participants might display a negative attitude during the recruitment process. To overcome that, I tried to be sensitive, considerate and respectful in
approaching the ignorant and those who sought further clarification of information about the study as explained in the information statement letter (See appendices 8, 9, and 10 respectively according to the three languages used). There was also a possibility that due to cultural or religious reasons some of the participants were likely to be reluctant to discuss or elaborate on pregnancy matters because it was too personal, sensitive or taboo to discuss openly.

As a researcher, I facilitated the methods of data generation. Participants were given the opportunity to choose an appropriate venue, date and time of interview sessions. Their privacy, safety and confidentiality was especially assured and observed carefully when they disclosed private or sensitive information with me. It was suspected that participants would inform their spouse or other close family members as a way to get approval of their participation in the study. As a result, their anonymity could not be guaranteed. Participants were reassured of strict confidentiality of the research data including demographic information. I endeavoured to work closely with participants to ensure that we maintained privacy and confidentiality of all research data being generated.

I had envisaged that some potential participants might harbour reservations about participating because of the hierarchical structures in the village. Rather, as villagers discussed the study amongst themselves, they had difficulties in making the distinction between a researcher’s role and a nurse’s role, and many consulted me with their health problems. It was expected that I offer advice or care, as I have normally done in the past. I was able to respond to any questions or comments regarding the inquiry, its purpose and benefits were expounded to those who had the opportunity to talk with me. Gradually villagers grasped the main information I wanted to convey, that is to collaboratively explore maternal health in the village and look toward ways to improve it. They learned the purpose of the study and its aims through the simple local language.

I was conscious of ‘village time’ which is often termed as PNG time. This means that things get done slowly according to one’s personal choice. Therefore, I waited until women were ready to talk with me. I tried always to be culturally sensitive, considerate and respectful in approaching women and those who sought further clarification on the information concerning the study. I shared with villagers that I had chosen Lomakunauru village to conduct the research for two main reasons. Firstly, the study’s outcome was aimed at helping childbearing women to have healthy pregnancies, normal births and postpartum periods in order to survive, rather than suffer or even die (previously some mothers had died).

Secondly, I was conducting the research as part of my study towards a degree. I emphasised another positive outcome of the study, which is that its likely benefits to childbearing women would extend to the family and the wider community.
As an indigenous and insider person who understood the local traditions and norms, as well as a professional nurse-midwife, I had the capacity to research alongside women. Male researchers, in my view, are somewhat restricted in undertaking research involving female reproductive issues, particularly within the Mussau local context. The issues of sexual and reproductive matters are labelled as cultural taboos, and people are forbidden to speak about them in public. In general, though, most villagers trust and respect nurses and doctors, and seek assistance from them to treat reproductive problems (Prakasamma, 2009; Rudman, EL-Khouri, & Waldenstrom, 2007).

Although it was quite likely for some women to want to volunteer for the study from as a sense of obligation to participate in the project, this was unacceptable. Later I would discover that they avoided talking about sensitive issues such as family planning.

Participants were invited to choose the preferred venue, date and time of interview sessions. A community house was selected as it was convenient to most women. The meeting times were planned to be conducted on Wednesdays except the last one, which was to be held on a Saturday evening. Their privacy, safety and confidentiality were promised as far as possible within this closed community. I was particularly careful when women disclosed private or sensitive information to me. If privacy, safety and confidentiality were threatened or were difficult to maintain, alternative plans were made to ensure that a smooth and private interaction in an interview session was achieved, as pointed out by Brannick and Coglan (2007). In the local familiar culture, visitors often arrived unexpectedly as I was interviewing. It was envisaged that should this occur, the interview would be suspended for a while so the participant could attend to her visitors.

**Data Generation**

I was in the research field from November 2009 to July 2010. The plan was to spend just six months in the field where I had hoped to interview one participant per week. The data generation process was expected to take three months. Instead of the plan to interview weekly, I had many conversations but few actual interviews with people in the first few months. Conversations were casual and not audio-taped whereas one-to-one interviews were digitally recorded on two voice recorders, as back up, and an audio tape.

Initially, the planned program for each week was to interview one participant, transcribe the data from the audiotape to a computer word processing program, Word Perfect 5.1, and commence concurrent analysis. One interview, taking approximately one hour, generated more than twenty pages of single-spaced text for analysis. Data generation involved contextual data and a daily field journal with entries of informal and formal conversations with women, and sometimes with their families, as shown later.
**Being present alongside participants**

The PAR methodology, and in particular its storytelling component, is distinguished from others primarily because the interview style is open. Openness is crucial (Koch & Kralik, 2006). This means I was aware of body language and I concentrated on the process of attentive listening. I was also aware of the way I conducted myself during conversations and interviews in the act of listening. I was willing to open myself to participants' stories, to let their stories speak to me, and let them influence me. I attempted to demonstrate a presence by listening. This openness of interview style requires practice. Close inspection of the interview transcriptions should provide evidence that the above interview disciplines were upheld.

**Questioning**

I used questions and probes that maintained a focus on experience as pointed out on Phase One study. Similarly, the 'What' questions were repeated too as highlighted in Phase One.

It is useful to make the distinction between 'what' and 'why' questions as used in this study. 'What' questions open doors to experiences of understanding, whereas 'why' questions close doors, or direct the response in certain directions (Bamberg, 2006). This is not to say that 'why' questions do not serve a purpose, it is just that for the present study, which aims to open doors to pregnancy and birthing experience, they were inappropriate. Although I refrained from asking direct questions, I found it necessary to have a memorised list of prompts. These included a few phrases, such as 'Tell me more about that.', 'What was it like for you?', 'How do you feel about that?’ In addition, clarifying statements were used to provide an opening for the woman’s descriptions.

**Analysis of data**

I made the full verbatim transcription of all interview data, which allowed me to work closely with the text. I undertook my own cut and paste, using a word processing computing program being influenced by Koch and Kralik’s (2006) analysis framework as discussed in detail in Chapters Eight and Nine.

**Strategies for presentation of data**

Following Koch and Kralik (2006), I selected the inclusion of the abbreviated stories the women agreed to have in print. These stories were contextualized; otherwise the experience is changed or rendered meaningless. I then analysed each story for commonalities or constructions. A construction is of particular importance as it presents a strong case or situation or is a strong instance of a particularly meaningful concern.
One-to-one interviews

By February, 2010, ten interested volunteers approached me and expressed their desire to participate in the study. Individual interviews, one-to-one, were conducted either at the participants’ homes or in a private space at the community building. In reality, only one interview occurred in the community building. There are factors like childcare and older women participants which imposed a degree of difficulty for travelling to the community building. Two interviews were held at my field residence, but the rest were conducted in the participants’ homes. These individual interviews lasted between an hour and one and a half hours. All interviews were recorded on a digital voice recorder, transcribed verbatim in Tok Pisin and Tok Ples languages, and later translated into English by myself. Translation was imperative to ensure my supervisors and readers could engage with the data from these stories.

One-to-one interview analysis framework

Ten individual interviews were conducted with village women in this sequence. First, women provided the personal demographic and maternal health details as listed in the first section. The initial pre-interview phase is similar to that in Phase One. For example, participants were questioned whether they were still interested in participating or not. Issues such as confidentiality and the right to withdraw from the study at any time were reiterated at the beginning and the end of each interview.

Second, I asked them, ‘Tell me your story about pregnancy and birthing’. If the woman had had multiple births, I asked her to select just one story. I prepared prompts to keep the focus on the experience. Prompts used sensitively stimulated conversation. Later, rather than ask about maternal mortality, I asked the woman about ways she thought that maternal health could be improved in the village. Storytelling was accomplished as participants were invited to share their childbearing experiences. I listened to their stories as they unfolded, revealing the participants’ daily lives. Then I attempted to understand the major changes these made in their lives. I was particularly interested in the storytelling phase of Koch and Kralik’s method because it created an impetus for understanding the way people have made transition in their lives. I asked each person to ‘tell me your story about ’..., and without using too many prompts I listened and recorded these revelations with a digital voice recorder.

These stages include listening to each other’s stories of pregnancy and birthing experiences, creating an awareness of the issues and gradually expanding our knowledge base, and then considering possible interventions within the context of the village. The communication strategy of this study enabled disseminating knowledge that informed nursing and midwifery education and practice, as well as promoting awareness of women’s health issues to a wider PNG population.
An older participant, who indicated an interest or willingness to participate in the study, was invited to give written or oral consent. These older women have a wider knowledge about PNG traditional birthing practices.

We often shared a light meal before we parted after each interview event. My reflections and evaluation of the session were entered in the journal. Sometimes it was difficult to evaluate an interview immediately because of the distance I needed to walk to and from a participant’s home. The story was transcribed verbatim in the language used, and then it was analysed as described in Phase One. The major difference was that I was translating in two or three languages, which prolonged time for me to complete the transcriptions and then move to another interviewee. Concurrent analysis and feedback to each woman was given before we continued the storytelling conversation. Ongoing conversations were analysed, and when the story had been told the woman was asked to join a PAR group. The findings from the one-to-one interviews were shared with all of the women in the PAR group, but only as a common story.

**Participatory Action Research groups**

The PAR groups were convened in January to July, 2010. The ideal PAR group size is considered to be between eight and twelve participants. Because the study generated so much interest in the village and people wanted to improve maternal health, when I invited ten women together for a PAR group meeting more than thirty other women came along to join the PAR group. I reminded the women that the objective was to build awareness about maternal mortality through the PAR process and collaboratively decide on reform strategies. In relation to ethics, it was not possible to get the women to sign the consent forms before allowing them to attend the group meetings. I concluded that their presence at the venue of the meeting was a clear indication of their consent.

The community building has adequate rooms that were used for PAR group discussions. This facility is located in a prime location of the community and is quite accessible by most villagers. Having tested the PAR process in Newcastle, I convened and facilitated the group meetings. Village women met fortnightly for two months. The same process for generating data, recording the sessions, and transcribing verbatim in both Tok Pisin and English were completed. Concurrent analysis and feedback were provided before the sessions continued. Supervisors were posted Compact Disks containing these transcripts and analysis just once, because of postal facility constraints.

**Being an ‘insider’ researcher**

PNG has a diverse culture which is a challenge to understand fully when researching (Ausaid: The Australian Government, 2007) sensitive issues like reproduction and sexuality. It usually takes a long time to establish rapport with the local women, so this would have been difficult to do had I done the
A study in another area of PNG. Language was another significant barrier, given that more than 1000 languages are spoken in PNG (Martin, 2012). Had I gone elsewhere to conduct the PAR study, an interpreter would have been needed. This person would have to have spoken the local Tok Ples and Tok Pisin fluently, and would have to be a female and trusted by the women in order to translate stories for me. Some money would have been required to pay for the interpreting services.

My personal health and safety were important also, so I had to live with people that I had known previously rather than with strangers. Besides, people had to trust me to conduct the research with them. Although sea transport raised concerns when travelling between Mussau and Kavieng, I was able to travel safely with experienced skippers during calm weather. My limited stipend allowance made it desirable that I live cheaply with my people rather than with strangers.

As an insider, my values and beliefs influenced the way I saw things being done and discussed by participants. I was inclined to believe most things that they told me and accepted these as the ‘truth’. I wrote my thoughts about storytelling in my reflective journal. I distanced personal views in order to have a deeper and better understanding of the things told to me. Another important issue related to power relationship, because of my educational background and status as an ‘outsider’ researcher among village women. This problem was minimised by showing respect for and consideration to individuals. Failure to display such things can affect the relationship between researcher and participants (Humphrey, 2007). I attempted to dispel any perceived inequalities amongst the group and myself. There was an obvious outward display of trust and respect amongst us.

Throughout the Phase Two study I kept a field journal in which I wrote personal reactions and recorded the way in which my understanding evolved. I recorded the process of entry into the research field and how I established a researcher’s role. I wrote how participants appeared to perceive me, as an indigenous, nurse and woman. I recorded how participants pressured me into the helping role and how my socialisation into the helping profession meant that the researcher and nurse roles intertwined into a participatory reciprocal experience. When in the village, I observed events such as the physical environment, organisational structure and daily routines. The exact conditions of data generation are typically under-reported or frequently reported in a standardised manner, obscuring a complete picture of what occurred, and I wanted to avoid that. I explored the notion of participants as co-researchers in the sense that this study relied on their co-operation. The present study objective was to research alongside participants rather than on people. In a journal section called ‘issues’, I explored some of the problems noted while in the village. I also considered the Primary Health Care environment and made notes about basic resources which are available such as water supplies, communications, health services and nursing staff skill levels.

The field journal was also a self-help tool for me to deal with emotions that emerged by listening to stories told about some women who had died in childbirth. I was a lone researcher in the field and I
needed ways to console myself. There were a number of ways I sought consolation. There is a personal ministries counselling service in the local SDA church. Counselling was offered for individuals with problems and this counselling was confidential. Alternatively, I sought assistance from a trusted friend. My family and close friends were a good source of invaluable assistance, including emotional support, throughout the study.

Being a researcher ‘at home’ is fraught with issues: being too close and familiar with participants, being blind to the obvious, taking aspects of daily life for granted and being acculturated. Lopez & Lewis (2010) insist that being an insider poses a major threat to the credibility of a study, because of the researcher-subject relationship and what is commonly called ‘going native’ (Wicks & Reason, 2009). A journal becomes the essential record of this relationship and provides material for reflection, and I believe maintaining a daily record is an antidote to going native.

On the other hand, I am ‘native’ as an insider and there are benefits surrounding closeness and having the languages with which to communicate (Brannick & Coghlan, 2007). How else would we give life to these stories about pregnancy and birthing? We would not have access to these local contexts if I did not participate with these villagers. And we would not be able to comprehend how we can improvise maternal health without these stories and their contexts. In the present inquiry the closeness of the ‘investigator-subject’ not only enhances the study, but I believe it is essential, as maintained by other insider researchers (Al-Makhamreh & Lewando-Hundt, 2008; Brannick & Coghlan, 2007; Roth, Shani, & Leary, 2007). Keeping a daily journal to record the relationship was therefore, imperative.

Koch and Kralik (2006) suggest that transferability is dependent upon the degree of similarity between two contexts, and uses the term ‘fittingness’. If the sending and receiving contexts appear congruent, the results from the original context may be applicable. The original context must be described adequately so that a judgement of transferability can be made by readers.

My understanding is that I need to describe the contexts carefully, so that connections with women living in similar PNG villages can be made. Again, I will provide the contexts that will allow transferability. I have written about the context in Chapter Two and in subsequent chapters I update my observations while in the field. These observations will be included in the text as I present each story and the reader can follow the main constructs that are arrived at in the text as discussed in Chapter Eight.

I am aware of the holistic fallacy which makes data look more patterned or regular or congruent than they really are (Koch, 2006). Avoiding this fallacy, I will present each story and the reader can follow the main constructs that are arrived at in the text.

One of the ways in which my research study can be viewed as dependable is for its process to be audited. Koch and Kralik (2006) suggest a study is auditable when a reader can clearly follow the
decision trail used by the researcher. Leaving a decision trail entails discussing explicitly decisions made about the theoretical, methodological and analytic choices throughout the study, and I will endeavour to do so.

**Contextual data**

The contextual data, field journal and access to the field are given in Chapters Five, Seven and Eight. Health service information was accessed after permission was granted by the Pakasi Health Centre officer in charge and the Lomakunauru village leader. Pakasi Health Centre lacked some essential information from past years and was difficult to comprehend. In addition, the reporting system and information at this local health centre were unreliable. If available, however, it would be a valuable source of contextual information. The Lomakunauru church records were a valuable source of contextual information although these records were incomplete as the deceased profiles were either incomplete or omitted from the record book. The aim of collecting such data was to analyse the number and the causes of past maternal mortality. Therefore, it was impossible to compare maternal mortality statistics pre- and post-independence, 1975 to the present, or even to compare such data with global MM statistics. One researcher borrowed some Lomakunauru church records but failed to return them. These records date from Christianity’s arrival in the village in the early 1930s and up to the last two decades.

I wanted to provide an in-depth picture of what occurs in the village and how these things influence maternal health of the childbearing women. This issue is further expressed in Chapter Nine. In a journal I also noted how I explored some of the problems I had observed while in the village. I also considered the Primary Health Care environment and made notes about basic resources such as water supply, communication and the qualifications of the health care staff, including their professional skill levels. I conversed with nearly fifty villagers, and notes from these conversations were recorded in the field journal. For these stories I relied on my recall later the same day. I made quick notes throughout the day and later, at night, transferred these into my word processing files.

**Journal reflections and evaluation of the research process**

Phase Two of this study replicated the PAR process for rigorous and systematic data generation, analysis and feedback. A researcher journal was maintained and analysed. A personal reflective journal was kept to enable me to reflect on people’s activities as well as my own. This means that I focused on daily activities centered on women. This personal diary included areas of research practice that could be improved or explored further, as well as descriptions of the events as they occurred, based on my immediate thoughts and impressions. The data were analysed concurrently. In addition, I described the local context in which some of the pregnancy and birthing stories are told. I explored
and documented what women wanted in regard to maternal health promotion agenda and attempted to reach consensus on matters that deal with maternal mortality.

As a novice researcher, I had read about the PAR process and immediately it seemed an appropriate methodology given the circumstances and what I hoped to achieve in promoting maternal health in PNG. Nevertheless, what I read about PAR needed to be practised, and over the years I have learned the process of one-to-one interviews and PAR group meetings.

Rigour considerations

Rigour is viewed as accuracy or plausibility (Borbasi, Jackson, & Wilkes, 2005; Porter, 2007; Roberts, 2006) of the research data that has been generated. In this study I needed to consider how my work would be seen to be trustworthy. In the positivist research paradigm, an alternative term to use is validity. But both of these terms refer to a systematic process that confirms that the data of the research can be trusted (Porter, 2007).

Trustworthiness

In this section it is argued that distinct criteria for trustworthiness must be established for a participatory research process to be read as a credible or rigorous account. The focus of the present study is to share the women’s stories with readers, and I must show that stories have been validated and constructions are represented adequately. I accept that the reader will decide if I have painted a faithful description of the context, the story and commonalities between stories. I will argue that one validity criterion is that women were provided feedback and their stories were owned and signed off by them. So this cyclic feedback process should be a strong case for validation and/or rigour. I acknowledge that the constructs emerging from the text are not always the same for readers because perfect agreement when analysing the same material would not be expected. Readers may not share my interpretation but they should be able to follow the way in which I arrived at it. Inclusion of the entire story demonstrates how I have selected or rejected some data in development of constructs. As previously argued, self-awareness of the researcher is essential. One way of increasing self-awareness is penning a journal where the content and the process of interactions are being noted. This was precisely the aim of my field journal and I have interspersed my observations throughout the text. I will consider three main criteria: credibility, transferability and dependability.

Credibility

The credibility criterion establishes that the actual research process that is done is credible or plausible according to the perspective of the participant involved in the research (Watts, 2006). This same author adds that given the perspective of the qualitative research which is to explore or understand the
phenomena of interest through the participant’s eyes, it is only the participants that are deemed capable and the legitimate judges of the credibility of the research (Breu & Hemingway, 2005).

Further, Koch (2006) maintains that credibility is essential in qualitative inquiry just as internal validity is perceived within the scientific paradigm. It is necessary to keep a field journal in which the content and process of interaction of events are recorded (Darra, 2008). This journal serves to show the record of relationships between different interactions of researchers and participants, and it ensures there is material for reflection, to ponder. For instance, in the one-to-one interviews, all participants were given their storyline to read and check for its accuracy. But the older women asked me to read the story to them as they listened attentively. After that, they provided their own feedback as a way of validation, which I incorporated into the story. Then I returned it to them for validation again. This process was ongoing until the story had been told or they were satisfied with them. Likewise, in the PAR group session, participants received a copy of the commonalities and reflected on these in order to check for accuracy and/or rigour before the next session commenced.

Transferability

This term refers to the degree to which qualitative research results can be generalized and/or transferred to other similar contexts or setting. According to a qualitative perspective, transferability is basically the responsibility of the person who is doing the generalizing (Porter, 2007). This is essentially used by a qualitative researcher who conducts transferability by doing a thorough job of describing the research context and the assumptions that were central to the research. So the researcher or reader who wishes to ‘transfer’ the results to a different context is then responsible for making the judgment of how sensible the transfer is (Porter, 2007).

Equally important, context ought to be described thoroughly so that transferability can be determined by readers (Porter, 2007). Some researchers use the term ‘fittingness’ to refer to evaluation of qualitative research (Koch, 2006). The rural context of Lomakunauru village as discussed in Chapter Two and Chapter Seven might have a judgement of transferability being made in reference to other rural settings of PNG, in matters of maternal health improvement.

Dependability

The notion of dependability, on the other hand, stresses the need for the researcher to account for the constantly changing context in which the research study occurs (Smith, Chen, & Liu, 2008). The researcher has a responsibility to describe the changes which occur in the setting and how these impacts on the way the researcher approach the study.

The dependability process can be compared to a process called audit. It refers to a rigorous process of evaluating financial authenticity of a business firm (Koch, 2006). That is, the researcher examines
account books for errors or inconsistencies. Likewise, in research, readers examine methods and data for authenticity or truthfulness (Liamputtong, 2013). The rationale taken for and justified in the decision trail is an important step to ensure reliability as Koch and Kralik (2006) recommend. That is, audit ought to be used as a criterion to achieve rigour, in particular towards the data consistency. Also, confirmability refers to the degree to which research results might be confirmed or validated. This means that the researcher clearly articulates the methods which stress an interpretation pertaining to the study.

Given this observation about dependability, I adhered to that notion to ensure that I constantly observed the village context, people’s behaviour and how they conducted their daily lives. It was necessary to make certain decisions the way I did to ensure that the research process was implemented rigorously.

**Conclusion**

This chapter has described the PAR process in preparation for Phases One and Two of the study that enabled me to explore possibilities for promoting maternal health with four female participants from PNG who lived in Newcastle, Australia and then with ten women from Lomakunauru, PNG.

The process of PAR has been regarded as spirals of self-reflective cycles which create momentum. ‘Look, think and act’ describes this cycle as articulated by Koch and Kralik (2006). Both the Phase One and Phase Two studies shaped my research question, ‘What can be done to improve maternal health in PNG? Among the major ethical considerations were voluntary participation and informed consent.

I maintained these in both study Phase One and Two. Certain elements are critical in participatory research processes as rigour. This offers plausibility of the research data that is generated. In this study, I considered how my research data would be considered trustworthy. The subsequent chapter highlights the Phase One study in Newcastle with four PNG women.
Chapter Six: Phase One Newcastle Apprenticeship in Participatory Action Research
Introduction

This chapter describes the Phase One study which was shaped by the first three objectives. It highlights the following main areas: First are one to one interviews with four PNG-Newcastle women whose personal stories of birthing in PNG are included. Second are preparations for the Phase Two PAR group meetings and the process involved in those group meetings. As well, the Newcastle participants group norms and the resultant actions that emerged from the meetings. Finally, it shows a brief description of my own reflections of the process and how the Phase One study in Newcastle would inform the Phase Two study in PNG.

Phase One: Newcastle study

I recruited and interviewed four PNG/Australian women for Phase One. These women were Mary, Sili, Faye and Gloria (self-selected fictional names). I met with these PNG-Australian women on a one-to-one basis and gathered their individual stories about one episode of pregnancy and birthing around early 2009. I transcribed and analysed the interview data using the Koch and Kralik analysis framework and returned the ‘story’ to the women for their comments and validation. I then invited the same four women to join a PAR group.

In collaboration with my two PhD supervisors, I facilitated this PAR group on four separate occasions during the months of June and July, 2009. At the first PAR meeting the women decided to talk about their story of pregnancy and birthing. I had reviewed current global literature on successful MDGs interventions to reduce maternal mortality and I shared key literature texts with this PAR group. The women then compared their own experiences and those from the literature. In the final PAR sessions, the women talked about ways PNG could advance towards improved maternal health. By the end of this PAR group, I had gained PAR expertise in data generation, transcription, application of the ‘look, think and act’ analysis framework, feedback and PAR group processes within a supported supervisory context in Newcastle, Australia, over six months in 2009.

One-to-one interviews

Four PNG women living in Newcastle were interviewed individually. All interviews were digitally recorded and I transcribed them. One interview took nearly three days to word-process, but this effort brought me closer to understanding each participant’s story. Verbatim transcriptions were analysed through the ‘look, think and act’ analysis framework described by Koch and Kralik (2006) as stated earlier.

The story as told by the participant was transcribed verbatim. I read through the entire transcript to get the sense of the whole. I read each transcript several times to gain familiarity with the woman’s tone. I noted the choices the participant made in telling this story, its chronology (or not), and what the
participant had decided to include in her story. I also pondered about what aspects of her story could have been excluded.

There are numerous ways to analyse storied interview data but this is how I developed the storyline for each participant. A storytelling episode lasting 60-90 minutes of digital recording on average creates about twenty pages of single-spaced text. The average length of the first storyline draft varies between 1500 and 3000 words. For instance Mary’s verbatim transcript was 8554 words but the storyline given to her was 2250 and its short version given below is about 600 words.

The transcript was abridged into a storyline that was an acceptable account validated by the participant. Capturing the tone and voice was paramount, so actual sentences uttered by the person were woven together into the storyline.

In the first level of clustering I closely read the transcript, and using the cut and paste function of the word-processing software, I attempted to sequence events or timelines. I clustered aspects of identity, relationships, social context, events, opinions, perspectives, feelings, experiences, similar content and similar phrases under temporary headings. I paid attention to repetition, I clustered when the participant had repeated certain events, made mention of certain people/relationships, or emphasized particular words or phrases. I pondered their significance. Perhaps the participant had repeated this meaning to emphasize its importance to her. Perhaps she was beginning to find her voice and it was novel being heard, instigating a revelation that was worth repeating. I paid attention to words selected, particularly the verbs which relate to ‘looking, thinking and acting’.

I asked what is going on in the text (looking coded in red), what is being reflected on here (thinking coded in orange) and what action is proposed (acting coded in green). When clustering, I asked what really mattered to the participant, what was important to her? I asked what the participant’s strengths were in this emerging storyline. I noted the tense in which the story was told.

At the second level of clustering, text was coloured into ‘look, think and act’ colour codes. Then I clustered the text around strengths, self-identity, relationships, social context, events, opinions, perspectives, feelings, experiences, similar content and similar phrases; I deleted repetitions, noted images and metaphors. I grouped these into paragraphs and condensed the text. I asked, what is the most significant thing happening in each paragraph? In this way I determined significant statements. I then rewrote the paragraphs with the most significant statement at the helm (first sentence). Using the significant statement as the first sentence of the paragraph I then reordered the paragraphs into a storyline. This storyline was further condensed by gathering the first lines of each paragraph (significant statements) and joining them together to make a short story version. Depending on the situation I could then decide whether to return the long or short version of the story to the participant. I elected to give women the longer storyline but I have inserted the shorter versions below.
This storyline was then given to the participant for her comments on accuracy and with an invitation for further co-construction. Feedback also mentioned strengths that I observed, such as a woman’s independence in seeking the best possible maternal healthcare. Adhering to the principle of collaboration, the final story was a co-construction between the participant and me. Storytelling continued until the participant was satisfied with her story. Constant validation of the story enhanced methodological rigour. As the story evolved, the participant’s actions toward change were identified. I have included each woman’s suggestions for change below. Given in the following section is Mary’s short story.

Mary

Mary is in her 30s. We (Professor Higgins and I) invited Mary to tell us about one pregnancy and birthing experience. We asked for only one story, and the participant had to select which one if she had had more than one birthing experience. We had a few prompts but we wanted to hear Mary’s story in her own words. Mary, who is currently a higher degree student at an Australian university, is a single parent who has been living on her own for thirteen years. She was the first interviewee, who wanted to tell us about giving birth to her first baby in a rural PNG village in the 1990s.

Mary’s short story

You can gain respect only through being a hard working woman. It is part of the cultural norm for PNG women to work hard, and I was required to walk long distances to the garden and carry heavy bags of sago and taro. One evening, in the eight month of my pregnancy, I was carrying very heavy weights, and as I was walking up and down the mountains, my labour pains started. I believe this strenuous activity brought on an early labour. The cultural norm in my husband’s local area was that I was not allowed to stay in my house. When I was in labour the women in the village could not touch me or help me. So I walked to another village. It was quite a long distance to walk, about three hours to walk to the main road in the hope that a vehicle would drive past so that I can go to the hospital. Some of the women came with me and we started walking. But along the way, I could not walk anymore because of exhaustion and the pain was getting stronger. It was my first child so I did not know what to do. This village was far from the road and it was a mountainous route.

I was a stranger in that village so women started preparing a birthing place away from the house, somewhere in the nearby bush. I had to go there to give birth. We found a suitable place on the ground. The birthing process was to take place in this sacred space in the bush. Although women were with me, I felt I was there in isolation as no one was prepared to help or come close to me. It was forbidden for them to touch me. After a long, lonely night of praying and crying in pain, it was around five in the morning that I felt the baby’s water
coming. So I sat inside the canoe-shaped bark of a palm tree. It was during the time of birth that one of the older women was brave enough to break the cultural norm. She touched me and said ‘it’s coming’ so I pushed. Then other women were prepared to help. I saw my baby emerge and did not want him to inhale the blood and other stuff. I said, ‘I need the cloth’. I thought they would help me cut the umbilical cord but they said no, you will do it yourself. I was prepared as I had packed a razor blade. Then they asked me to hold the baby so that I could get the afterbirth out by myself. Eventually, they brought me water to wash. They prepared food for me but it was hard, dry and had no soup. It was not nutritious. Tradition could not be broken and I was asked to sleep with the baby under the house where they had placed coconut palm leaves as my bed.

As I was not a local person, I found out more about their traditional birthing practices in the week to follow. As soon as a week had passed, I was given permission to leave. The next Sunday, I walked many hours with my newborn baby to the main hospital in town. I was told by hospital staff that we were both OK. Then someone went to my husband’s work place to tell him about the birth. Normally a man does not stay with the wife or sleeps in the same house until the child is walking.

**Researcher’s reflections**

Mary was still at school and young when she became pregnant. She did not have her parents’ approval or their support. Instead she joined her new husband to live in his village many miles away and she found his family unfriendly. Mary was obliged to work just like anyone else and to contribute to the food production and gathering. She was forced to work long hours in the village gardens high up in the mountains. Mary recalls the birth of her first child vividly. I was keen (in feedback) to highlight her strengths and I focused on her determination and wisdom to carry her own ‘birthing’ equipment (clean cloths and razor). Mary had learnt some aspects of pregnancy and birthing taught in the secondary schools. Her own mother had shared some information about giving birth. She managed her labouring stages effectively and showed great resilience and strength.

When asked what she had learnt from this birthing event, she said, ‘The first thing that I want to highlight is the differences in cultural beliefs’. There is great diversity in cultures between PNG villages, even when villages are less than fifty kilometres apart. According to Mary, the women in the village were not allowed to touch her for fear of becoming ‘unclean’ themselves. If they did so, they would not be able to cook for the family, especially if they handled food for the men. After Mary gave birth, she was advised to live/sleep under the main house. The cultural norms forbade her from staying in the house because she was unclean after giving birth. She was expected to stay under the house for a week. Under the house, however, is where domestic animals lived, and it was dirty and
unfit for humans to use as a shelter. Mary was given only hard and dry baked taro (root vegetable) to eat, without any protein or nutrition needed for a new mother and her nursing baby. She remarked that it is not unusual for women to continue to work, and they are expected to carry heavy loads until they are in labour. Lack of transport and having to walk long distances to access health care provision is not uncommon according to Mary.

I asked, based on her experience, how she perceived maternal health could be improved in PNG? She claimed that she had been an ignorant young woman who could have made better choices in life if she had received better information about pregnancy and birthing as an adolescent. Mary wanted her story or any sections of her experiences to be included in the thesis and subsequent publications. Sharing her story in public satisfied her strong desire to assist other young PNG women, where possible to make better choices regarding safer pregnancy and birthing. That is, she concludes that in listening to her story many young women could ‘learn from her life experience and save themselves from unnecessary hardships’.

Because this was a trial period in learning about managing a PAR inquiry, it was suggested by my supervisors that I ask Mary to tell me about another pregnancy and birthing experience. This was to demonstrate the amount of data that would be generated if I were to ask for more than one story from each participant. Mary was pleased to cooperate. I recorded, transcribed verbatim and analysed another of Mary’s birthing events, and realised that I definitely needed to adhere to just one story if data were to remain manageable. Thereafter, women were asked to talk about just one pregnancy and birthing experience. I saw each woman on several occasions and so I was able to maintain rapport and relationship building with them. Continued involvement and relationship building is a central aspect of this PAR process.

Sili

Sili was the woman who volunteered to the second interview. We had secured a private study room in the Newcastle University’s library for our interview. I arrived a few minutes earlier and organised documents and set up an audio recorder and the digital voice recorder. Then Sili arrived. We warmly greeted each other and briefly introduced ourselves. I graciously thanked her for choosing to participate in a one-to-one interview sessions. I asked her if she had any comments or questions regarding the information letter. Sili had received this same letter about a week earlier. She said the information was self-explanatory and that she was willing to proceed with the interview. So she signed the consent form indicating her agreement to be interviewed individually and also participate in the PAR group meetings. During the interview I refrained from talking and listened as she asked a few prompt questions seeking my clarification. During our initial interview session she just wanted to go on talking, but we had to stop about an hour and a half later.
Sili was employed as a primary school teacher in a rural village in one of the Highlands Provinces of PNG. She had pursued her education to a tertiary level. Recently she had travelled to Australia to undertake a post graduate degree at the university. Similar to the first participant, she was a sole parent independently supporting her small biological and extended family living in PNG. Sili selected her first pregnancy and birthing experience. The birth of her son occurred in the same PNG village where she was employed as a teacher.

Sili’s short story

I am almost 39 years old. I was married at 19 straight after school. Although I disliked this, it was a traditional arrangement in the highlands of PNG where parents want bride price. I became pregnant when I was twenty-one. I have mixed parentage from Eastern Highlands and Simbu Provinces. But I lived in Goroka where I worked. My ex-husband also comes from another Highlands Province where my sons currently live with their grandfather. Their biological father had married three or four other women.

I knew I was pregnant but did not know how to go about it. But from time to time, my mother was with me. I went to the antenatal clinics. As mentioned, at the time of pregnancy, I taught in a remote school and recall that whenever the nursing sisters conducted rural maternal child health village clinics, I went for checks. I started attending antenatal clinic and had regular checks since I was only three months pregnant.

I married young and with my teaching work in the village and seeing complications that some women had developed motivated me to have regular antenatal checks for myself. I had monthly visits since the third month but by the ninth month, I organised fortnightly visits. My tummy was getting big and my baby was kicking. My mother kept telling me to be very careful. I kept my ears open to hear of the nursing sister’s visit to the village as the primary school was right in the community. I often asked them for a next clinic schedule. Sometimes they were not able to conduct village clinics because of transport problems. Whenever this happened, I always went to the nearest town in order to access the antenatal clinic.

By the ninth month I felt the pains and told my mum about it but she kept saying that I was not due to give birth. There was a woman in the nearby village near the school where I taught. I sent for her. On arrival she said, this must be the first stage of labour.

I decided to go to the hospital to see a doctor. We got on the public motor vehicle because we did not have a private car and travelled to town. The road was bumpy. It took about thirty minutes to reach the hospital. I wanted to give birth in the hospital so staff could help me. They said to me, your baby is ready to be born. Staff helped me because it was my first baby.
I went into the labour room and was there by myself but did not go through much pain. The pain came on and off for some time. I wanted water and did not know what to do. I was lost. The nurses told me to have a shower, and do this and that, so that I would be ready. They said nice things to me and I felt good. I knew that they were going to give me the best help. But when the pains became very close together, that is when I needed someone there with me. I was calling for my mum. Nurses also came and touched me. Psychologically, this was not only a comfort but also reassuring that the staff cared for me. It took some time and then I gave birth to my baby son. After he was born, I forgot about the pain.

On the other hand, there were mothers who had come from the village and occupied beds in the labour room. As they groaned in pain, the nurses said to them, shut up - this is your fifth and sixth pregnancy! These mothers must have felt bad but as for me, a first time mum, they treated me well. It was really good that someone cared and was there for me.

I was hospitalised for about one and a half days. The staff said to me, you are healthy and can go home. They advised me about taking care of the baby including immunizations; type of food to eat; when and how to feed the baby; and to keep myself healthy as well as family planning. The nurses taught me all of these. After that I went home and complied with the advice accordingly.

When I was home my breasts were not producing milk for the first few days. They were engorged and very painful. So I expressed the milk with my hands. The baby was crying and I did not know what to do at first. My mother dipped a sponge cloth in warm water and pressed it gently against my breasts. I did not ask her why she did that. She continued doing this for a while and then she encouraged me to pull the nipples and put the breast into my baby’s mouth. I carefully followed her instruction and gradually got used to it. My baby was breast fed for many months.

**Researcher’s reflections**

Sili was fortunate to have support from her own mother and another woman during pregnancy and in the postnatal period. In addition, her mother was able to give practical advice when Sili’s breasts were engorged and the milk was not forthcoming. Her mother massaged her affected breast with a warm piece of cloth which enabled the milk to flow. This participant had a good birthing experience and found she was cared for by staff, although staff were not as generous with their comments and care to other women labouring alongside her.

I asked Sili about improving maternal health in PNG. Sili was eager and committed to helping me promote maternal health. In subsequent conversations Sili emphasized that malnutrition in PNG is not
due to a lack of food supply in PNG rural areas. Rather, it is caused by a lack of basic knowledge and understanding of the four types of food groups and their nutrients needed to maintain a healthy body.

She said that food preparation was problematic and often resulted in nutritional deficiencies, especially amongst pregnant and nursing mothers and their children. Providing information about good nutrition needed to be addressed by health workers. She said that professionals needed to assist women and their families to acquire adequate knowledge and skills that lead to maintaining a nutritious diet for good health. Sili had some more ideas she wanted to share. For example, health workers who identify widespread malnutrition in a village can seek assistance from agriculture officers or dieticians to talk to the villagers. Health care professionals, together with the leaders of the community, could set priorities to resolve malnutrition problems.

Further, Sili remarked that in some areas of PNG, husbands, fathers, uncles and other male relatives usually eat first before the women and children eat. This means that they eat the best part of the meal including protein, leaving a meagre supply for mothers and children. Often, mothers sacrifice a small portion of food to give to their children instead of consuming it themselves. This means that women often eat a smaller amount even when they are pregnant and in dire need of proper nourishment, not only for themselves but also to provide adequate minerals and vitamins for a growing foetus inside their bodies.

**Gloria**

Gloria’s one to one interview was held at her home in a suburb in Newcastle, Australia. This site was selected because it was convenient for her. Upon my arrival at her place, we greeted one another and I thanked her for supporting me with the study. She wanted to attend her children’s activity in school later that morning. Our meeting was scheduled for 10 am. Then I mentioned the information letter, but she had neither read it beforehand nor did she have her copy with her. Fortunately, I had a spare copy and gave that to her to read through carefully to understand its content while I waited in silence. After she finished, I asked whether she had any specific questions about the letter or any other comments concerning the study. She said that she understood it well as it was self-explanatory. Then she signed the consent form. I assured her about confidentiality and I promised to transcribe the interview and return the story to her afterwards. We had morning tea and I thanked her wholeheartedly. Then I left. But on the way to the university, I stopped beside the road to reflect and record my performance. It felt good that I was acquiring confidence with interviewing skills. On arrival at the Newcastle University, I made contact with Professor Higgins and told her I was safe. This was one of the safety requirements for me to exercise while on field work. Gloria’s talk was about her first birthing experience at Port Moresby General Hospital, PNG.
Gloria’s short story

My name is Gloria. I will be 47 years old this year in 2009. My place of origin is in one of the Highland’s Province, PNG. I have three children. Two of them were born in Australia but I will share the story of the pregnancy which I had in PNG. My baby was born in the late 1990s.

I was a student at the University of PNG when I got married and then I became pregnant with my child. I remembered that at school we learnt that there are antenatal clinics where a woman goes to when she misses her menstrual period. My girlfriend at the university had a baby before me. Unlike me, she always attended antenatal clinics. I asked her ‘when you go to the clinic, what do nurses and doctors do for you?’ She responded by saying that ‘they checked me’. I specifically asked her, ‘how did they check you?’ She said, ‘the doctor inserted his hand inside me and checked’. That obviously scared me and I was embarrassed to attend the clinic. It was the scariest thing that I did not want to happen to me. I did not want that experience. So I did not attend antenatal clinics.

One Friday morning, Michael (pseudonym), my husband and I went to the hospital but then I was not sure whether I was in labour or not. This was my first baby so I was uncertain. I was just imagining which part of my body would experience the pain, whether it was my tummy that would ache. In PNG, I did not bother to be informed because sex and pregnancy are viewed as taboo subjects. I just kept quiet and thought about it to myself. I had a backache and thought this could be the labour pain they always talked about. I felt embarrassed and I did not want to mention it to anyone else except Michael. I was past my due date, possibly about a week late. I kept thinking about what others had said that when the baby is ready to be born, I would feel severe pain. I wondered which part of my body would feel this pain.

My friend’s husband who is also a friend of my husband was a medical doctor and this person was working in the hospital at the time. Michael took me to the Port Moresby general hospital but we actually met my friend’s husband at the hospital car park. He was on call that time. I told Michael I was not going to give birth when he was present. It would be embarrassing. I went home, but Michael stayed to talk with his friend. At home, Michael explained that this doctor had said I would not have the baby just yet. He had observed me in the car park and he was certain it was a false labour. I got really embarrassed about this. I did not want to repeat a same mistake made earlier about being in labour when in reality I was not.

On Sunday morning all of a sudden, I started having pain in my back. It felt as if a spear was piercing through me. I thought, this could be the real labour pain. I remember they said that the pain will come on and go off every 30 minutes and then they will come on every 15
minutes. I asked my girlfriend to time my contractions to see if they were regular. If regular then we could go to the hospital. Meanwhile, all my things had already been packed. These included essential items that I would need in the hospital. My girlfriend and I walked to the hospital from a nearby suburb where we stayed. That walk took approximately 20 to 25 minutes.

When I gave birth my mother was living at home in PNG. But my aunts were staying in Port Moresby. I did not tell them that I was in labour because in my culture if a mother’s relatives are present to provide support during labour, one is obliged to repay them with money. As mentioned, I was just a student and only Michael earned an income. I deliberately decided not to inform my aunts. Afterwards, when my aunts learnt about my daughter’s birth, they were really, really angry with me. But by then it was over. My mother finally arrived in Port Moresby about a week later to support me. Her assistance, however, was not compensated for because she belongs to my family.

I had been in labour for more than twelve hours. My daughter was born around seven in the evening. Giving birth had taken all day. She was a big baby but she was healthy.

The doctor said that I had a third degree tear. I was sewn up in the labour ward but the thing is that I was not given any local anaesthetics before the procedure. The pain was so unbearable. They just sewed me immediately after birth. The pain was much worse than the labour pain itself. Oh! The repair was really, really painful. I could not walk. In fact, I think I did not go to the toilet for two to three days.

During the first visit to the baby clinic, we were advised about family planning. We had to take the baby to the clinic every time so I did that faithfully. I had an injection of provera. I never went back for another shot. It was three years before I had another baby. I only had that one provera injection. That was it. I have never had any family planning since.

**Researcher's reflections**

Gloria talked about pregnancy and birthing and it raised several interesting points. First, although she was educated and had easy access to antenatal clinic for routine checks and immunizations, she refused to use this service because of stories that her friends had shared. The examination procedures described infringed on her cultural understanding, and as a result she failed to attend antenatal clinics. Many PNG women do not have the choices given to Gloria. She chose to give birth at the hospital. It is surprising that she did not seek information about pregnancy and birthing prior to the event. It is important to realise that some cultural or traditional norms restrict discussion of sexual and reproductive matters openly. Consequently, these restrictions hinder proper understanding of vital reproductive information that all women need to know. Even her knowledge of family planning was
limited. There are a range of family planning options, but she was not given a choice by staff at the family planning clinic.

This story shows that lack of information about pregnancy and birthing, even when the woman is educated, can impede maternal health. Sources of information were from friends and those people Gloria called ‘they’. It is understandable not seeking information when the topic of reproduction is taboo. It does show that Gloria’s embarrassment, identified on three occasions, prevents good maternal health care.

**Faye**

Faye was the fourth participant to share her story. The venue for the interview was also in the Newcastle University library. As usual, I arrived a few minutes earlier, to arrange items such as audio equipment and papers. I cordially thanked her in advance for choosing to participate in the study. I noticed that she had brought the information letter along so I invited her to ask or make comments about the content of this letter. She did not have any questions as she had understood it. Then I asked her if she was still willing to proceed with the study. She was willing. So she then signed the consent forms after I explained it to her. She chose to communicate her story in English. After Faye finished talking, I thanked her and reassured her about confidentiality. I also promised to transcribe her story and return it to her soon. After I had seen her off, I reflected and recorded my observations for further analysis and evaluation. I believed that my interview practice routine had improved. I identified some aspects that still needed improvement. A common one was to avoid using ‘closed’ questions, as those called forth mere superficial information. Instead I planned to maximise use of open-ended questions. I realised that rich data were generated through good listening skills. Hence, I carefully selected prompts to use in future. Below is a short story that Faye shared with me about her third pregnancy.

**Faye’s short story**

I am 38 years old. I have mixed parentage from Gulf and Oro Provinces. So I kind of belong to both places so I can’t claim to belong to one area only. Currently I am working in Newcastle. I have had a tertiary education. I am a Seventh Day Adventist and I have three living children. I’ll talk about my third child whom I conceived in one of the Highlands Provinces, PNG while living and working there. I gave birth to baby Randall (false name) in the same hospital where I worked.

The reason I want to share the third pregnancy is because older women in the village were keen to tell me what to do. Some of the advice I would not classify as good advice. They would tell me to keep busy all the time, you know, be active all the time. They said I must not lie down too much or sit still. But I found that I had to listen to my own body. When I was tired, I
had to rest. None of these women were village midwives. They just wanted to offer advice and have their say. They told me to go and sit in the water and swim. I think that the reason for swimming had to do with the force of the water acting on the back muscles. It helps the muscles to relax. It was a very fast flowing river. I took that advice and I must tell you that when I was climbing down the hill to the river, up and up again that took about half an hour. It was a fair distance to where I lived. Therefore, I did this just once as I felt sore afterwards and I thought, I won’t do that again. It was about a week later that I had my little baby boy.

When I went in to the hospital to have Randall there was a midwife who was working at the time and she was also a friend. She said I’ll sit with you until you have your baby. She was there for me.

Then all of a sudden I felt that I would have the baby. I said ‘I feel like pushing’. She said, you have not really made any noise so are you sure that you are going to have the baby? Yes, I am sure about it. So we went out to the labour ward and I said, you better call Daniel (false name), who is my husband. Call him because he will want to be here when the little one comes along. Anyway, Daniel was surprised when the midwife called him because it was about two o’clock at night. He came in and I had Randall about one hour later. The time flew so quickly from the time that I felt like pushing and I must have missed a lot of time because I just wanted to give birth to the baby. Daniel managed to hold his son and cut the umbilical cord.

After I gave birth, the midwife cleaned me up and that was about it. Everything was normal, there were no complications. I had to walk home straight after birth because it was not far. I was exhausted and I could not sleep at first. Just as I was just about to doze off my daughter came in and asked me, mum what did you have? I was too sleepy to reply so she unwrapped the blanket and realised that the baby was a boy. She just left him and ran away as she was expecting to have a baby sister.

I was very comfortable in the labour ward because I had my friend the midwife at my side and my husband was present. But I had an audience though when I gave birth. Two extra nurses on night duty were in the labour ward. Although they were all females, I did not want them in there. I was embarrassed and felt uncomfortable. I thought, here I am, exposing myself to these people. I did not have the courage to tell them to leave.

I was on the pill between each of my babies. It was during postnatal check. We were required to go for a check-up and they asked us if we wanted to use family planning. I chose the pill because at the time it was easier for me to take.
Researcher's reflections

As a well-educated woman, Faye could make a decision about what information to accept and what to reject when village women offered advice. Faye felt privileged to have a trusted friend/midwife assisting her during birth. Although it is unusual to have a husband present during the birth, this was not the case in this major hospital. Having a friend and husband present during labour fostered comfort, and I believe this was the key to successful birthing. The outcome of her birthing experience was positive and she was able to go home after a few short hours of labour.

When I asked her opinion about her experience, Faye said, ‘Women must be allowed to accept or refuse staff wishing to assist in labour. It is vital to give consent but if it is your own mother or sister, that won’t be a problem. If it’s anyone else, I don’t think that would be acceptable’. Faye said that Port Moresby Hospital, as the nation’s major city hospital, was just like a big factory. Faye continued to talk about public and private hospitals. She said, ‘All the women line up and there is no privacy accorded to them. When I was there to have my first baby, the doctors and medical students did the ward round. The male doctor performed a vaginal examination on me. That was a very embarrassing and uncomfortable experience for me. If I were to have another birthing experience in PNG today, I would have a choice. I’ll choose to have my baby in a private hospital, not in a public hospital.’

When I asked Faye about ways she would improve maternal health, Faye agreed that a woman has more choices if she is educated. She said, ‘When you are educated, it helps because you can make a good choice. This meant that I could ask for what I personally preferred to be done to me. I believe that being educated helps a lot. ‘Education is power’ Faye had health care options and she was able to make choices. These options were not available though to most rural PNG women as illustrated in their own stories. She argued that better information about pregnancy and birthing for all women should be a priority. Faye believes that lack of good hygiene practices was one of the main problems for rural women. She said that women needed counselling and encouragement to have regular antenatal visits. Women need good information according to Faye: ‘I personally wanted to know factual information when I had my first baby, in order to overcome ignorance concerning my labour.’ Faye spoke about contraception and had good knowledge about family planning. She was the only participant to do so.

Participatory action research group meetings

Mary, Sili, Gloria and Faye joined the PAR group to share and discuss ways in which they might collaboratively promote maternal health in PNG. I facilitated, recorded and analysed four PAR group sessions, or about twelve interactive contact hours with the women from May to July, 2009.
Preparation for PAR group

I will explain the introductory notes given to participants. In brief, the PAR meetings were held as described in the ethics proposal. As a facilitator, I gave a brief but hearty welcome along with an acknowledgement of the presence and participation of my supervisor, Professor Tina Koch who was joining us via teleconference. In this first session I had prepared notes in a power point presentation format and these were printed and distributed to all participants. The purpose of these notes was twofold: firstly, to highlight the study’s research questions and objectives, and help outline our collaborative expectations. Secondly, I could follow the sequence and stay focused while conducting my first PAR session. I invited women to comment on matters that concern them or raise questions. They agreed to participate in four group sessions over two months and they claimed they understood that they were responsible in setting the agenda for each meeting. Democracy has to be learned. This meant learning to be a democratic facilitator. The participants would determine the agenda, drive the research process and decide on actions.

Group norms

Group norms or rules by which the group was to monitor their own behaviour were established and agreed on. The women identified specific group norms. Respect for each other was deemed important and this entailed respecting other people’s ideas even if what was said seemed trivial and contrary to one’s own point of view. Further, respect meant avoiding interrupting another person. Listening to each other was valued. It was agreed that group members switched off their mobile phones to prevent noise distractions while the meeting was in progress. The group agreed that everything said and the names of the participants would stay within the group. We agreed that the four women and two supervisors were the only people to have access to our dialogue. On a practical matter, I recorded each session, and having one voice to transcribe sequentially was preferable. One person speaking at a time helped me to make sense of the group’s discussion afterwards.

Number of PAR group sessions

Since this was a research apprenticeship, four meetings being held over two months was ideal for Phase One. It should be noted that at least ten sessions are adequate for a group to explore ways to improve maternal health, but as a pilot study and apprenticeship exercise, four sessions were satisfactory to grasp the PAR process which I could use in a PNG village.

Phase One PAR group

It was a challenge to begin the first PAR meeting. Given my limited time with the group, and hoping that this was enough time for them to generate some actions, I wanted to stimulate a mutually
beneficial discussion. It was important to involve women in the process. I anticipated that the women would not want to discuss pregnancy and birthing openly in the group, given their cultural background, so I had prepared a story based on commonalities of their experience, allowing for some anonymity. As a facilitator who was relying on the women to set the agenda, I asked participants to select whether to share their own short story in the group or instead talk about this common story I had compiled. In other words, women were given an option to talk about their own private story or decide if they felt more comfortable about starting group discussion with a common or public study. I had given participants the common story (see below):

**Common story**

All of us were young and in school when we became pregnant and our ages ranged from 19 to 21. We were inexperienced and naïve about pregnancy and labour. We had some basic understandings about various aspects of the reproductive system including pregnancy and labour. This was quite limited, though, because in PNG cultural context, sexuality is viewed as taboo and is not discussed openly. Our mothers made only a superficial attempt to inform us, and older village women perpetuated myths. Nevertheless, we had some educational background and this helped shape our choices about maternal health matters, especially when labour commenced.

Embarrassment surrounding the revealing of intimate body parts prevented us from seeking maternal care. We understood that antenatal care was important, but some of us dreaded vaginal examinations and avoided this service, despite knowing that we should attend it. We preferred gender-specific services. When in labour we would like family and preferably husbands to be present at birth. In the absence of family members, we would like best friends or caring staff to be at our side when giving birth.

Some of us had to travel a short distance, walking or using public transport, to reach a hospital where maternal health care was available. In contrast, one of the participants lived in a remote village where transport was not available and after walking for almost a day gave birth in the bush, labouring in isolation during the night.

We have strongly voiced the need to educate and inform women now living in PNG about sexual and reproductive health. The cultural, religious and traditional practice that impact on women should be understood. Further, men should also receive similar education with women, in order to understand the benefits of or adverse effects of harmful cultural practices in PNG.

The participants shared their birthing stories and were surprised at how little they had understood ‘human reproduction’ while they were young. They suspected that when I researched alongside village women, they would have even less information and that cultural myths about maternal health and ‘old wives tales’ about pregnancy and birthing would predominate.
**Women’s response to the common story**

I invited the women to talk about this common story or share their own short story with the rest of the group if they preferred. To my surprise participants expressed that they wanted to hear individual stories first so that they could grasp the significance of the pregnancy and birthing events in each woman’s life.

Silence reigned for a few minutes whilst the women collected their thoughts. Eventually Gloria began telling us about her experience of childbearing. I had asked each one of them to shorten their short story because of time constraints. Gloria shared a longer story version, leaving out her experience of pregnancy and skimming over aspects that were potentially embarrassing to her. Participants were listening closely. Other ‘long’ stories followed immediately, focusing on birthing only. There was undivided attention. From personal observation, it was positive for them to relive their memorable experiences. Women do not usually sit around in a group and have the opportunity and liberty to discuss events that are memorable even if some events are distressing. I heard from Faye afterwards that the stories had touched her life, especially when Mary had recounted her isolated labour experience, and giving birth in a rural bush setting.

Given that these PNG women were well educated, it seemed appropriate to share literature on successful interventions. I had captured over 100 articles using Nursing Databases and Advanced Google Scholar with the terms ‘maternal mortality’ and ‘MDG5’, and the years 2000-2008. Successful interventions to reduce maternal mortality in developing countries were presented in table format so they could be easily comprehended. When I explained PNG’s high MMR, participants were amazed at the huge number of deaths and wanted urgently to discuss possible health promoting actions that could assist rural women.

Based on successful interventions in the literature, the PAR group talked about Safe Motherhood Interventions and the need for formal training of TBAs. According to PAR members, most remote and rural villages in PNG are so isolated that access to basic maternal health services is difficult. Traditionally TBAs offer assistance to normal births.

The PAR group took on board the results from a Rural Bangladesh Survey published from 1976 to 2005, which reported successful interventions that reduced MMR by 68% over these years. In Matlab, Bangladesh, many interventions were implemented, including skilled attendance at birth and safe abortion practice, family planning, emergency obstetric care, formal education for women, poverty reduction through socio-economic and micro-credit programs, and universal provision of antibiotics (Chowdhury et al., 2006). Sri Lanka reduced MMRs from 1500 deaths per 100,000 live births to just 300 per 100,000 within 25 years, due to universal access to professional skilled midwifery services.
was recognised that this strategy may be the most effective in reducing MMR, but many PNG health centres and villages would not be able to implement it as it was beyond the scope of PNG resources.

The PAR group recorded their reaction to safe abortion as this was one of the successful interventions cited in the literature, stating that legal abortion was not likely to be tolerated in many PNG villages. Of note is that the village for Phase Two of the study is prominently Seventh Day Adventist, and while the use of condoms as contraception is supported, safe or legal abortion is not condoned for religious reasons. As a result, it was important to explore what was feasible and sustainable in local PNG context. The PAR group was also influenced by Shiffman and Smith (2007) work which showed that generating political priority for maternal mortality reductions in five developing counties provided positive results. Much discussion resulted on ways to engage the PNG politicians and decision-makers, if only to move them faster towards action.

**Phase One actions resulting from PAR group**

The PNG women were enraged that their country had such a high maternal mortality rate, and that the plight of women dying in childbirth was ‘off the radar screen’. They asked, ‘Why was there so little media interest?’ Ways in which ‘we’ (participants and researchers) could draw attention to their plight was, therefore, the main concern. We wanted to know more about PNG government response to meeting the fifth MDG. Although as a group, we wrote some emails and letters requesting information from various PNG government bodies, little was forthcoming. Communication with key officials was slow or evasive. So what is going on in PNG?

The women set the agenda for discussion and decided collaboratively about the actions that could be taken to reduce maternal mortality in PNG. The PAR group reached consensus that better education on pregnancy and childbirth should be available to PNG girls and women of all ages. According to research participants, information sharing concerning childbearing is critical in making informed choices relating to pregnancy, childbirth and postpartum matters. Based on their own experiences, women felt that the little information they had acquired during school had influenced their decision to seek and access medical care. Unfortunately, a majority of illiterate women do not know about such information. Therefore, participants believed that when PNG women are educated and learn relevant factual information, they will make rational decisions about their reproductive and sexual health: for example, information about signs and symptoms of an onset of labour, danger signs of pregnancy that require immediate medical attention during antepartum or postpartum bleeding, fever, premature rupture of membranes and post term pregnancy, just to name a few. They believed that pregnancy in early adolescence is quite a common occurrence in villages but that there was an absence of sexual, reproductive-type education in families or at school. In addition, PNG women required information about nutrition, hygiene, and understanding of cultural childbearing practices in PNG.
The first action was to identify key people and organizations that would prioritise and push the agenda. Sili argued for accountability:

‘Let us consider having a PNG office only for women and run the office from the top to bottom having resources, policies and budget and staff to travel to district levels. From this level, one can check on implementation of the fifth MDG goals and village committees. These committees report to the main national office. There is accountability done through their office in terms of money and projects. The main way to get help for village mothers is to follow this structure, otherwise it would follow the same current trend where provincial offices fail to deliver goods and services to the rural populations like Teptep, Hagahais in Madang or to Gumine in Simbu in PNG highlands, and those farthest away who lack basic essential services. To achieve these goals the mothers must know about the information to save lives. It is about time the government responded.’

The PAR group spent some time considering the content of an education package that they believed was essential to pregnancy and birthing information for all PNG girls and women. This information should incorporate maternal health topics which women themselves select. They suggested that the researcher conduct a health need analysis for women’s level of understanding and literacy, and then argue for training accordingly.

Examples of possible maternal health topics for village women included:

1. Promotion of nutrition via discussion of essential nutrients in foods and cooking demonstration sessions.
2. Preparation for birthing.
3. Pregnancy trimesters.
4. Signs and symptoms of labour.
5. Stages of labour.
6. Danger signs and symptoms of pregnancy and referral systems.
7. Personal hygiene and care of mother and baby.
8. Family planning.
9. Cultural taboos and practices about pregnancy and birthing: beneficial and harmful practices, and discussion of harmful practices and myths.
10. Encouragement of pregnant women to attend antenatal clinics regularly, so high risk cases can be referred to hospitals.

Mary assisted the group by setting up a web blog page to allow communication as a group. The plan was to invite like-minded individuals to contribute. She said:
‘When we are developing this networking and intervention, we can learn from other people’s input and then we can convince the government that this is an issue. Here is what I found; what can be done about this major health problem?’

The PAR group subsequently developed a Google Blog page: Promoting maternal health in PNG. The blog also served as a PAR support mechanism for the PhD candidate whilst undertaking her studies in her PNG village. PAR group participants have decided to support the present researcher for the duration of the study. When this study is complete (December, 2012) ‘we’ (the researcher, the supervisors and the participating women) will invite decision-makers from global, PNG governments and locals to join the discussion blog. We will share the ‘findings’, show the women’s stories, and so stimulate action to enhance political will and policy. It is envisioned that the blog will act as a social activist network for promoting maternal health.

How will Phase One inform Phase Two?

Women had suggested potential success and constraints indicators I might like to consider when researching in my village. The main constraint identified by Newcastle/PNG women was how to generate reforms with village women in the context of traditional patriarchal hierarchies. If women wanted change, would village men allow maternal health reforms suggested by them?

Minimal infrastructure was identified as another constraint for service delivery and promoting maternal health. We had learnt that inadequate transport and roads made reaching a facility on time to give birth a major problem. We heard about Mary’s long walk to seek skilled birth attention for the birth of her first baby, and that she was forced to give birth in the bush, without support, even having to cut her own umbilical cord. After hearing about Mary’s experience of traditional birthing practices, it was my intention to pay particular attention to local cultural contexts.

Women also spoke about lack of maternal health information and education resources they had experienced so I was able to take some of their suggestions on board about ways to engage with women about maternal health. We talked about including reproductive anatomy, information on sexually transmitted infections (STIs), social aspects of sexual interaction and information on family planning, pregnancy and birthing. We talked about ways to reach village women with user friendly education packages on maternal health promotion. Of course, the research agenda would be driven by the village women, and educational type actions would only occur if initiated by the village women themselves.

We agreed that I should take account of illiteracy amongst village women. These participants affirmed that storytelling was culturally appropriate when literacy levels were expected to be low. I was confident that storytelling with village women would engage them, but I was not sure how I would
attract women to the larger PAR group. I had been able to share the fifth MDGs literature with these educated women, but I recognised I would not be able to do so in the village setting.

We talked about the lack of resources in PNG because it is a developing country. It was unlikely to have adequate health services. But we felt that lack of resources should not deter village women from wanting to improve their situation.

One of the main strengths echoed by the PAR group was that I was indigenous to the village. As an insider researcher who is familiar with the context and languages spoken, I believed this placed me in an ideal situation to talk with women about pregnancy and birthing. However, being an insider researcher brought with it some challenges. There are unique cultural challenges faced by young adolescent women in PNG where topics such as childbirth are steeped in superstition and where the use of family planning is moderated for a range of reasons.

1. There is an urgent need for education for all PNG women in relation to reproduction, childbirth and postnatal health.
2. There is little awareness of the rates of maternal mortality amongst PNG women, and we should devise effective ways of registering and broadcasting these facts.
3. Actions to prevent maternal mortality used in other third world nations may not be useful in the PNG context.
4. There is a place for the use of information technology, the blog, as a means of sharing important information among women from PNG.

**Reflections about my apprenticeship**

I have presented the findings of Phase One of a PhD research study conducted using Koch and Kralik’s’ (2006) PAR methodology to explore ways to improve maternal health in PNG. But this entire process was an apprenticeship in PAR. The apprenticeship process allowed me to explore and understand together how best to use PAR and storytelling with women from PNG. I developed interviewing and facilitation skills. It also provided insight into aspects of the group processes that might emerge in relation to the topic area, generally taboo in PNG, and how to move a group towards action.

**Considering disclosure and building relationships**

Disclosure means sharing a revelation about personal and sensitive information between persons (Borbasi, Jackson, & Wilkes, 2005). In a study like this, where relationship building is the key goal, it is sometimes useful to share one’s own story. Perhaps people can relate better to me as facilitator if I allow participants inside my personal life.
During the first PAR meeting, I did not share my own story of pregnancy and birthing with participants. From my personal experience, it seemed that although the group shared their own stories, they were not ready to hear my story. It was during the second PAR meeting, that I disclosed my personal childbearing story in relation to my first pregnancy, birth and the circumstances that I had experienced. I noticed that thereafter women were able to talk much more openly with me.

With my story alongside theirs, participants realised that we had some things in common, including being in school or college when we had our first pregnancies. Also, some of the difficult situations that we encountered as young mothers were similar. Besides, I gave birth to my baby at a rural health centre where basic health services were quite inadequate. I did not have a skilled birth attendant to assist me. I talked about surviving from a postpartum haemorrhage. I also told them that soon after giving birth I was called upon to assist other pregnant and labouring women at the same health centre. I believe hearing my story made participants recognise that I was driven both personally and professionally to improve maternal health care in rural PNG. Thus, they gladly joined their voices, especially in the latter meetings, to explore interventions that Lomakunauru women (and the rest of PNG) could consider and adopt during Phase Two of this research.

When participants are comfortable with each other and with facilitators, it is more likely that they will form a cohesive group. A cohesive group may move forward into an action or reform mode. In my view, disclosure is very important in building rapport and trusting relationships amongst researchers and participants. Although women openly talked about their experiences in the first PAR meeting, I noticed that when these identified with me we gained richer data. The stories that subsequently evolved in the group were less superficial.

**Maintaining a field journal**

In conducting this phase of the PAR study it was important to keep a record of all research activities, including what happened when interviewing, and my observations of the group. A few examples of the matters recorded were: the strategies for recruiting PNG/Newcastle participants, who would be a third party to recruit participants and, of course, the venue for the interviews, the length of interview and how I established rapport between myself and my interviewees. Thinking about these things allowed me to plan the research process in a systematic manner. I could also ponder ethical and moral implications as they arose. By recording events, I could reflect on them. I examined journal data to identify strengths and negative aspects of each event. I could then decide ways to improve my role as researcher/facilitator.

Establishing good research skills and routines was part of the learning process. Writing and analysing my personal journal on a regular basis, immediately after the interviews with a participant or after I had facilitated a PAR group, was a challenge. It was a new skill to learn, and I had to get used to
writing regularly and as soon as I could after the event. I realised that these journal accounts were valuable data that I could use in the future. I had written in my journal immediately after the meetings while the memory was fresh and activities vividly remembered. It also gave a sense of accomplishment when I had performed an interview or other research activity proficiently. For example, just to arrive at the interview venue before the scheduled time was a bonus. It meant that I had ample time to set up recording equipment and organise notes before the participants arrived. This small learning event, even though it seems trivial, was important to set the stage for a productive interview session.

I wanted to improve my interviewing skills, using prompts rather than direct questions. But while you are actually in the interview situation it is more difficult to give up control and avoid directing the conversation. I noted in my journal that learning to ask more prompt questions was a skill that needed improvement. Stringer (2004) explains that questions ought to be planned carefully so that participants have a greater opportunity to respond to the events and bring out things that matter to them in their own language. I asked women to tell me just one story about pregnancy and birthing and I tried to use prompts only. Prompts are responses that enable participants to describe the situation in their own words. I ask, ‘Tell me more about …’, ‘How does it feel …?’ Prompt questions, also termed extension questions, often include questions like, ‘What else happened?’ Such encouragement promotes greater dialogue with participants. The prompt allows the interviewees to go deeper, and instead of uttering a few sentences, in the verbatim transcript I can see many pages of text without my voice. Seeing my voice rarely in the transcript provided evidence that my prompts were working.

**Relationship of field journal with decision trail**

Reflection on and analysis of research activities as noted in my journal are incorporated into this document. The incorporation of reflections into this chapter can be viewed as a decision trail whereby my research work in the field is transparent. I suggest that including excerpts from my journal in this chapter promotes my accountability. When a research study is being examined or evaluated by readers, it should show how I arrived at the findings. Readers may not always agree with my findings, but at least my journal accounts provide evidence about what was going on while I was researching. One important reason for including my reflections is to show how I conducted the study and the major reason for taking a particular course of action. My decision-making has been made apparent. I argue that my study is rendered as believable or trustworthy by inclusion of these reflections, adding to the rigour of the study.

**Facilitation**

My role as a facilitator was in apprenticeship mode for the first few sessions, accompanied on this journey by Professor Koch. It is important that as a PAR researcher undertaking facilitation of a
group, that I reflected on my role as facilitator, clustered group dialogue under the ‘look, think and act’ analysis framework, and identified individual women’s or group strengths. I developed constructs (a list of main items discussed and some actual quotes to provide evidence) for use in the discussion session to follow when PAR group meetings ceased. I became conversant with the fluidity of the ‘look, think and act’ processes, and possessed the skills necessary to capitalise on these ‘stages’ to accomplish forming a productive, cohesive group. I constantly analysed whether the group was ‘looking, thinking or acting’. When story telling women were looking, thinking was prompted when I asked them to consider ways in which maternal mortality could be improved. Women took control of the process and set the agenda for subsequent meetings. Numerous actions were suggested; the main challenge was deciding which reforms could be achieved and were sustainable in future.

A short feedback document was developed and given to women prior to the next PAR group meeting. This document included their strengths and focused on actions they had selected. Feedback was a routine activity of the PAR cycle described by Koch and Kralik’s (2006) processes. It was important for me to give feedback of the previous group meeting as a summary to the women, not only for validation purposes but also to foster group dynamics, cohesion and a sense of achievement, as they noted their strengths and actions. Women drove the agendas and validated each part of the process as we were generating data. This is one of the main reasons I argue that constant validation of data by the women contributes to the study’s rigour.

**Conclusion**

Phase One of this study was done in Newcastle where four PNG women were recruited and interviewed. Their names were Mary, Sili, Faye and Gloria. These women shared their birthing stories and were surprised at how little knowledge they possessed about reproduction’ pregnancy and childbirth when they were younger. The women were alarmed that their country had such a high maternal mortality rate and that the plight of women dying in childbirth was ‘off the radar screen’. The PAR group subsequently developed a Google Blog page: Promoting maternal health in PNG.

The women articulated serious lack of maternal health information and education resources in PNG which they had previously experienced. Their concerns about ways to engage with women about maternal health were taken into account. It was agreed that despite a lack of resources, this should not deter village women from driving actions to improve their situation. My role as a facilitator was in apprenticeship mode for the first few sessions, accompanied on this journey by Professor Koch.

I recorded reflections on my apprenticeship for Phase One study. The apprentice study enabled me to develop one-to-one interview skills and PAR group dynamics that I was to use in the Phase Two study. Chapter Seven, the chapter, I will discuss the challenges of entering the village and its context for Phase two of this study.
Chapter Seven: Entering the field and describing the context of Lomakunauru Village
Introduction

The chapter is presented in two sections. The first shows challenges and constraints which I encountered as I made preparations and finally entered a research field setting. It addresses matters relating to air travel and safety and field equipment which I needed to complete the research. Section two gives a description of the physical setting of Lomakunauru village. It begins with its location, the people, structures that exist and the people’s way of life. In essence, it highlights how the villagers can or cannot collaborate to sustain reform strategies that women proposed in order to improve their health and prevent maternal mortality in future generations.

Section 1: Travel and Safety challenges in PNG

As a local Papua New Guinean, I did not anticipate any safety issues while travelling back to PNG to conduct my field research. However, PNG is categorised by Australia as one of the dangerous countries in the world. In contrast, it is home to me and is considered safe and peaceful. Nevertheless, because of my status as a student of the UON, Australia, and in conjunction with my application for ethics approval to proceed with the study, I completed a health and safety form. As a result, and because of the nature of my research, the Health and Safety Department recommended that I register my travel with the Smart Traveller through the Commonwealth Department of Foreign Affairs and Trade. This would enable the Department to contact me if a natural or manmade crisis arose in PNG. Further, a list of precautions was given to me to minimise possible risks of injury while in the field. For instance, avoid walking alone at night. Whenever there was a risk of a communicable disease outbreak such as cholera in the area, I would take measures to protect myself. For sea travel, I purchased a lifejacket to wear in case the outboard motor dinghy capsized in high seas.

I was asked to provide evidence that the research field was safe to live in and conduct the study. To confirm that, the Brown family, who are expatriates. They worked for the Summer Institute of Linguistics, Eastern Highlands of PNG, had lived in the village since the mid-1990s. They facilitated translation of the Bible to the local Mussau language. These expressed in writing that: ‘We have lived in this village and have felt very safe and comfortable. The people are respectful’. The UoN was satisfied with this response.

I flew from Australia to Port Moresby, PNG. Although I had planned to transit to Kavieng that same day, I could not. I stayed in Port Moresby because my ethics approval from the NDoH was still under consideration, and I was compelled to address this in person before travelling to NIP. This was critical as I could not conduct the field research without approval from NDoH and PAU. As a result, I paid quite a handsome amount for my airfare and rebooked my flight to Kavieng following the granting of the ethics approval. Then at Kavieng, I waited for a boat to travel to Lomakunauru village.
Preparation for the field research

There are essential preparations to attend to prior to conducting the Phase Two PAR in PNG. This preparation was vital to undertake research in a remote and rural setting in PNG where items needed to do the study are unavailable, and where there are no shops. Ethics approval to conduct the study in PNG was one in fact one aspect of major preparation.

Field research equipment

The remoteness of the Lomakunauru village obliged me to plan my equipment ahead of time. This is unlike much other field research, where PhD studies seldom need significant preparation for field equipment as I needed with mine. These are examples of the field equipment which I purchased: two digital voice recording devices, AA batteries, a solar panel, an inverter and truck battery. This was connected to an inverter and the solar panel to provide power for the laptop and the data projector. I also needed fuel including petrol and diesel for the generators and kerosene, electrical extension cords and adaptors, fluorescent lights, compact disks (CDs), a data projector, food and drink to share during the meetings and small gifts.

Two digital voice recorders were needed because I wanted to use both simultaneously. If one of them failed to record interview sessions the other would capture the interview. It was important to retain the stories of the women and the group agenda. Both devices required AA batteries, so I purchased adequate supplies to last an entire research period in the village.

In a village without running water or electricity, and where generator-powered electricity is unreliable, I needed a solar panel and an inverter to run the lights at night and also to supply power for the laptop computer. Although this system functioned well at the outset of the research, the inverter ceased to work after a few weeks. This hindered transcription of the stories and their translation into English.

Prior arrangement was made to use a generator at home so I also bought kerosene at Kavieng to use with it and diesel fuel to use for another generator if necessary. Actually, the kerosene supply quickly ran out because it was used for the lamps as well as the generator. We waited for transport to Kavieng to buy more fuel. The food being bought and collected from the family gardens was cooked and shared with women at the PAR group meetings. I purchased a small gift for every research participant as a token of appreciation for their involvement in the study. This is part of the Melanesian custom of reciprocity.
Gaining permission to enter the research field

Upon arrival at Kavieng, I found that there was a new NIP administrator. I informed him about my arrival and attached the approval letter given me earlier. Thus I sought his assistance with sea transport to and from Mussau. He gladly supported my request and promptly advised his subordinates from the Murat district that I could travel with them whenever necessary. I am grateful to his support.

I was successful sometimes in reaching decision-makers who stood between me and my task of commencing Phase Two of this study. I had written a several letters and made telephone calls to get permission from significant persons in Murat district. One was to the village leaders of Lomakunauru to ask whether I could use the community house for interviews and participatory process group meetings. The committee was willing to assist me and allowed free use of the community house. Other non-locals who used the same facilities were required to pay.

Constraints of entering the research field

Establishing and preparing for a research study in PNG is a slow process, dealing with bureaucracies that are fragmented and offices that do not necessarily communicate with each other. In addition, PNG government electronic networks are archaic, relying on telephone and fax, and this was very difficult to cope with from Newcastle, time differences aside. If the minister or official had an email address, I chose this form of communication, but they rarely responded. Making arrangements to enter the field took over six months. Obtaining statistical data on maternal mortality was also problematic.

A major constraint was a delay in obtaining ethics approval from the NDoH. Prior to that, I submitted my initial ethics approval documents from the UON, HREC. Despite several attempts to obtain permission and to check for any progress, my efforts failed and caused much frustration. Time could not stand still.

My supervisors initially planned that I would obtain ethics approval prior to travelling to PNG. Failure in securing that led me to travel to PNG and physically check with the NDoH regarding my ethics application in Port Moresby. But before I went, my supervisors and I had an alternative plan B. This meant that I could return to Newcastle and undertake the Phase Two study if ethics was not granted.

In Port Moresby, I lived outside the city and travelled to and fro to enquire about my application with the research committee staff. I showed a copy of my ethics approval from the HREC, UON. A staff member found that my name and the forms were missing. I was told that the last meeting for 2009 was only a few days away, and that the next meeting would be in February, 2010.
A copy of my ethics documents was filed with the rest of the applications forms. I waited patiently for the committee to scrutinise my application. I desperately wanted it to be discussed at the proposed meeting. I waited in vain, so a few days later I visited the office again, and was told that my application had not been seen at all. This person apologised profusely about the inconvenience caused to me.

Senior academic colleagues from PAU advised me to submit my Newcastle ethics approval to the PAU and the National Research Institute Committees. It was their opinion that these committees should also sight my documents and possibly provide permission to conduct my study. The PAU research committee acknowledged my letter and promptly granted permission. By then the NDoH assured me of the committee’s approval for my study to proceed but I still had not received an official letter.

**Shipment of field equipment**

Another major obstacle was shipping my field equipment from Newcastle to PNG. In Newcastle, I had paid an international freight agent, hoping to collect my cargo when I arrived in Port Moresby. Ideally, sending the cargo straight to Kavieng would have been the best plan. I waited for two weeks after arriving in Port Moresby. There was no information about my cargo so I contacted the shipping agent in Newcastle. Time was racing so I finally left Port Moresby for Kavieng. I had not received news about the cargo. Whilst in Kavieng, several telephone calls were made to Port Moresby. It was in vain. The more they delayed sending my cargo to Kavieng, the more they demanded my family to pay for storage. The money was paid immediately. Then they insisted on inspecting all the contents of the cargoes. They claimed that the list from the Newcastle Company was missing, so they wanted me to send a new list with the copy of my passport and visa. I was very frustrated as I understood that the Newcastle agent had sent my list a few months earlier. Besides, the cargo declaration form explicitly stated that the cargo was personal. In late November, 2009, still waiting for the cargo to arrive in Kavieng, I travelled to the village. The cargo did not arrive. Two more weeks elapsed before I went to Mussau.

My family waited in Port Moresby for the shipping agent to inspect my cargo. But they delayed this even though the list had been sent to them. Staff demanded my family to pay more money. They threatened to keep the cargo unless my family paid more. Then New Year 2010 arrived, but shipping staff made demands and threats. Fortunately, another family member warned that he would report these corrupt dealings to their superior. They finally inspected my cargo and sent it to Kavieng. In April, 2010, the cargo arrived.
Sea transport

A third problem was unreliable sea transport to and from Kavieng. As discussed in Chapter Two, it was difficult to organise and take regular trips between the two places. There were three outboard motors which belonged to the Murat district LLG. One belonged to the Pakasi Health Centre for referring sick people to Kavieng hospital. Another belonged to the Epo staff members. The third belonged to the President of the Murat district LLG.

Although the NIP administrator had specifically advised Murat staff that I should travel with them to and from Mussau, such an arrangement was difficult. For example, one morning I wanted to return to Mussau from Kavieng, but many more people also wanted to take the boat ride. They were relatives of the staff and overloaded the boat with store goods without considering the risk of capsizing. I decided to remain in Kavieng and look for alternative transport. It was three weeks before I arrived at Mussau. I had earlier approached the skipper of another boat, but he was hesitant to take me.

Electricity

A third obstacle was the lack of electricity, not only in the village but in the house in Kavieng. At home, I used my late father’s kerosene-powered generator. Another diesel generator was used when the solar panel and the inverter were not functioning efficiently. But these were quite unreliable due to a shortage of fuel. The damage done was irreparable. At night a kerosene lamp provided light but it was dim and unconducive to writing and reading at home.

There was no refrigerator to store fresh food. This meant daily food preparation. Fortunately, my family provided my meals. These challenges might affect future research in rural areas without reliable electricity.

Communication with my supervisors by telephone and Internet

A final major challenge was communicating with my supervisors. Before I left Australia, we had planned that I would contact them regularly, either by telephone, email and the blog page. This had been set up by the Newcastle women’s group. Unfortunately, communication was always problematic as a result of situations beyond my control. Let me explain.

The only public internet café in town failed frequently and was quite expensive. The post office lacked basic items including padded envelopes to protect the CDs. I needed these to send the women’s stories to supervisors in Australia. Other shops did not sell them either. So instead, I had to telephone my supervisors in Australia. These calls were expensive.

On Mussau, the only telephone is at Epo, a government station. Using this telephone service was inefficient. Further, it took an hour to reach Epo. Consequently, much time was wasted walking to and
fro without even reaching my supervisors. On several occasions, Professor Higgins called the receptionist at Epo and we were able to talk. This was encouraging to me. Somehow, incoming calls were better. There is still no internet network in Murat district. This restricted my email contact with my supervisors.

**Section Two: Village context**

The beliefs, values, customs, practices and social behaviours of people in Lomakunauru village will be described later in this section. I will also talk about health care delivery, the education system, accommodation, and food production as it happens in the village. These descriptions will help contextualise the women’s voices and explain the way decisions about improving maternal health may evolve in the PAR group. I begin by reiterating a brief background of PNG and NIP followed by the observations that I made regarding the village, its governance, its people, local leaders, traditions, infrastructure, public health issues, resources, services, structures and processes.

**Papua New Guinea**

It is important to provide further context for this study and to show preparations being made before I entered Lomakunauru village, PNG, followed by my observations and reflections while in the ‘field’.

Chapter Two highlighted facts about PNG. Life expectancy is 56 years only. Nearly half of the population is under the age of fifteen. Males comprise 51.9%, females 48.1% (Izard & Dugue, 2003). Transport networks in PNG are in poor condition, 85% of the main roads and nearly all feeder roads are impassable most of the year, 17% of the population has no road access and wharves and airstrips are in decline (World Bank, 2010).

Whilst PNG has extensive natural resources including gold, gas, forestry and fisheries, even now PNG’s gross domestic product remains the lowest in the Pacific region (Morris & Steward, 2005). It has been argued that PNG is on the cusp of an ‘extraordinary economic, social and political transition’ (Duncan, Batten, & Gomez, 2009). GoPNG is in a position to see that benefits from its rich minerals and gas reach its grassroots population, and improve transport, communication and health care provision to the rural poor. Democratisation brought about by the internet in urban areas is yet to reach every village of PNG. But when such telecommunication happens it could transform the entire society. Contact by mobile with others including health care professionals in PNG will provide greater supportive health services that dying alone during childbirth may become an event of the past.

**New Ireland Province**

New Ireland Province lies in the north-eastern province of PNG. Its provincial capital is Kavieng which is located on the northern tip of the main island. The population was 118,350 during the 2000
The vast majority of nearly 90% live in rural villages. Nearly twenty languages are spoken in NIP but the main spoken languages are local languages, Tok Pisin and English (Martin, 2012).

The government under the leadership of the governor has emphasised development in all vita areas including education and health. His plan is to delivery basic service to the rural populations. He gave the speech to locals during his visit to Mussau in June, 2010. I also witnessed this occasion. He stressed that collaboration by all peoples of NIP is a way forward. The governor supports change and wants local leaders to do likewise. He warned that if a leader is sceptical or lacks vision for progress, he must not be a leader. Leaders, he claimed, should have a ‘right’ attitude in serving the country. He challenged Murat leaders to create incentives so people who migrated to Kavieng may return to Mussau.

Mussau Island

The people of Mussau belong to the Murat LLG. The population of Mussau has declined over the years because many of its people migrated to greener pastures mainly to seek employment and education in PNG. All the leaders of the Murat district originate from Mussau, Emirau and Tench Islands, three main islands that form this district. Some leaders are educated while the local ward members and presidents are semi-literate. One of their roles is to implement policies of Governor, a member of PNG Parliament and his cabinet based in Kavieng. There are no tangible developments on Mussau Island. Small trade stores are scarce and expensive to operate. The main roads are undergoing constructions under the Works and Supply division in Kavieng.

Local health services on Mussau Island

The only health centre is located at Epo, South Mussau. It is a government-run facility that serves the entire Mussau population. It has a ten-bed capacity, including the birthing room. The basic health services being provided include casualty and emergency care, medical and surgical, family planning, antenatal care, labour, post natal care, child health care and school health.

At the time of the study, three health personnel worked at Pakasi health centre: a health extension officer, registered nurse and the male community health worker. The health extension officer is the manager and is responsible for its overall operation. Other staff are subordinates including a registered nurse and a community health care worker. The community health worker is the forefront of the primary health care services. They are trained to work at the peripheral health care system, including community aid posts and health centres.

None of them are qualified midwives, but they have learned basic midwifery skills in their training. The qualification each one has is based on the training they had received. Such academic qualifications determine staffs’ roles and responsibilities towards patient care.
The NIP cabinet approved those positions within the formal health care system, enabling them to function as registered nurses and health extension officers because there are no medical doctors in the Pakasi health centre.

The sick and pregnant women of Lomakunauru reach Pakasi health centre mainly by walking or paddling in small dugout canoes. The trip takes almost 2 hours. Other villagers on Mussau Island take much longer to reach the health centre. Severely ill or high-risk pregnant women are referred to Kavieng hospital. In reality, this referral system is not effective because patients or pregnant women are instructed to wait until there is fuel to travel to Kavieng, or they have to pay before they take the trip. Most people are poor and cannot afford the fare.

There is a notice on the main door of the Pakasi health centre that reads, ‘You must pay first before you can receive treatment’. Such a statement could be applicable if the locals have regular incomes to afford services But majority are poor and live below $1 a day (Morris & Steward, 2005). It is not surprising that they cannot pay fees upfront at all times. Instead of imposing such ridiculous rules, staff could negotiate with community leaders and, together devise creative ways of enabling patients to pay service fees. Mola and Mackay suggest that disadvantaged groups of clients including women could bring what is available locally like foods or crafts to the health staff. Then the staff would sell the products and spend the money on services used (Mackay & Lepani, 2010b; Mola, 2009). This would enable patients to seek health care when they are ill or pregnant to access health care in a timely manner instead of waiting until their conditions have reached a moribund stage. Health care is a human right and people on Mussau deserve that service from the government (Braithwaite, 2008).

The Lomakunauru health care will be briefly mentioned later.

There are many huge challenges faced by Pakasi health centre. These are lack of electricity, water and sanitation facilities and accommodation for staff. A single radio is used in contacting medical doctors in Kavieng during emergencies. Serious emergencies are transferred to Kavieng General Hospital via outboard motors. Reliable transport like ships or sea ambulances to evacuate patients safely is still lacking. Travelling from Mussau to Kavieng is fraught with dangers of storms and failing motor engine failure. On average, efficient outboard motor takes 5-6 hours to reach Kavieng.

During the field study, the NIP cabinet visited the Pakasi health centre and noted the facility needs improvement. Two water tanks consisting of 1,000 litres were donated.

One was for staff and patients. The tank was erected opposite to the main door of the main health centre building. Although these tanks provided clean water still they were insufficient to cater for everyone’s needs. Staff housing have no running water so the tank is used for multiple purposes. A staff in charge of the health centre complained that every day she walks to the creek to bath. An hour is spent for this trip. She plans to have one tank each for every staff member. She complained that
failure to have sufficient water tanks will influence decision to leave and work elsewhere. The NIP and Murat LLG faces challenges of equipping and maintaining resources at Pakasi health centre.

Running electricity is lacking so a kerosene refrigerator is used to store vaccines and maintain the cold chain process to maintain vaccine potency. But the refrigerator has been unreliable and does not work regularly. On one occasion it had ceased working for 48 hours. When this was finally detected, vaccines were taken to Emirau health centre for storage. But the cold chain process no doubt was affected. This is a very serious matter because any non-potent vaccines administered to babies and pregnant women will be ineffective against communicable diseases.

A wind-powered solar panel is not damaged and irreparable. In my opinion, to purchase new solar systems from the renowned companies who should be contracted out to provide on-going maintenance.
Figure 7.1: Villages of Mussau Island

Lomakunauru: geography and traditional culture

As discussed in Chapter Two, Lomakunauru village is one of twenty-two small sea-side communities on Mussau Island, the second largest island in NIP. It is subsistence-based and the staple foods are sweet potato, taro, green leafy vegetables and fish. The population of Lomakunauru is approximately 500 people spread over five coastal hamlets, in a ten kilometre radius. The demographical age distribution of people now residing in Lomakunauru have more elderly people within the sixty to eighty age groups than for middle-age and young children, less than twelve years old. From 2007 to
2010, about twenty-three older people had died of malaria, diabetes and old age. The average life span of the deceased was estimated between sixty and ninety years. More people had migrated to urban towns and cities in search of employment or education and were not living in the village at the time of the study.

Although culture can be defined in a number of ways, I suggest that Lomakunauru village culture refers to the shared beliefs and values, customs, practices and social behaviour of its people. Some of these are briefly described below in order to provide further context for this study and to show preparations I made before I entered the village. I will build on this description by sharing my personal observations of the village context: the village, its governance, its people, local leaders, traditions, infrastructure, public health issues, resources, services, structures and processes.

The villagers have embraced the matrilineal tradition for many decades until now. The biological children of a couple tend to inherit their mother’s clan. As a result, they also inherit natal customary. This is different to some areas of PNG who have patriarchal structures (Telban & Vavrova; 2010). There are several tribal or clan groups in the village which are similar in the Murat district. In Lomakunauru, the four main existing clans are Elaisa, Evele, Saitalai and Masaisao. These are closely interrelated. Other sub-type clans exist and are interrelated with one of the four major clans. One of the major roles of these clans is to ensure that marriage arrangements are done according to the traditional norms. That is, a man and a woman of the two former clan members can marry members of the two latter clans and vice versa.
Lomakunauru people engage in subsistence-based agriculture and the staple foods are taro, sweet potato, cassava, fruits and vegetables and fish. Although culture is generally coined as the art, music and literature (McDade, 2008) in the Lomakunauru village, culture refers to the shared beliefs and values, customs, practices and social behaviour of its people.

There are no formal aged-care facilities or services. Families absorb these responsibilities for older persons and the sick. Physical necessities like food, accommodation, spiritual and emotional enrichment are offered by one’s families. A smaller house adjacent to the family house is where older people reside. Usually, one of the grandchildren spends the night with the elderly person to provide security. This is ongoing until the elderly person dies. The average lifespan in the PNG population is fifty-six years (Australian Government, 2008a) but the average life span of a majority of Lomakunauru people is seventy years.

**Social activities**

There are social entertainments that occur annually in Lomakunauru, especially during Christmas and New Year. Independence Day of PNG, 16th September is another reason for celebration. Sporting activities are important aspect of socialising among youths and their supporters. On rare celebration involves older males and young boys wearing traditional outfits to perform a traditional snake dance.
This is accompanied by its song. The performance is very spectacular. In addition, school closing ceremonies at the primary school are also a cause of great enjoyment for villagers in late November or early December. A day is appointed and the entire community participates in the program. One of the highlights is school children’s performing marching drills, reciting poetry and singing songs. They also receive their final grading reports from the school teachers. The prizes are awarded to top performing pupils. The feast is eaten to end the celebrations.

During this study, the youths held a sport’s competition with another village from Eastern Mussau. From my personal observation, the players demonstrated good sportsmanship throughout the games. An SDA church minister and his staff provided support for the competition. Prior to the competition, players had to register financially but many did not have enough money. Everyone prepared the food and raised funds which led to a successful fundraising activity.

**Daily activities of the village women**

This group is the most hardworking of all villagers and their main activities are listed here. In a typical day, women wake up very early, around 5am and cook the family meal over the open fire. This is critical particularly if they have smaller and school children. At 7am they serve the meal and eat with the family. Then they send children to school and do the dishes, clean and tidy the cook house (a separate building where the raw food is stored and cooked) and the eating area.

Then they manually do the family’s laundry. This activity sometimes takes three to four hours, depending on the quantity of clothes being washed. Then they go to the garden to plant, weed or harvest crops to bring home. The husband usually accompanies the wife to the garden and carries firewood and a bag of food. If she is alone, she has no choice but to carry everything home by herself. If she has a baby, she straps him/her with a long piece of cloth, approximately 2-3 metres long onto her back or on the side to enable her to walk home faster. This is a traditional way of carrying heavy items in the Murat district. The women balance heavy items on their heads without holding them, unless they are descending steep hills. It is different from other parts of PNG where heavy bags of food are carried on the back with big billums (traditional bags).

When a woman arrives home, she is exhausted but cooks the evening meal for the family or else they will not eat. She cannot save energy and time by eating readymade foods like bread or noodles. There are no shops to buy them from. Instead the food is cooked over the fire and then bathes, often walking for an average of 10 to 20 minutes to swim in the sea or the nearby creek. Some more fortunate families have shower with tank water. Then she serves dinner and feeds her baby if necessary. She usually eats after the rest have eaten. Sometimes older children or the husband assist her to wash the dishes. The family have worship and then retire for the night. The mother tidies the house, or folds the
clothes. Finally, she is too exhausted and sleeps at around 10 or 11pm. On average, one sleeps for 5 hours. Early the next morning, she wakes up first and the routines are repeated.

Friday and Saturday are exceptional days. On Fridays, women stay home to prepare foods and clean the house and the lawns for the Sabbath (Saturday). Around 8-9am, when the food for baking is ready, they light an earth oven, or inei as it is called in the local culture. Heaps of small stones are placed in the designated area inside the cook house (hauskuk as in Tok Pisin). This name will be used in this section. Then the smaller twigs are lit with fire followed by larger firewood. The dark smoke from the fire is harmful to the eyes. Many women have complained of eye problems like cataracts, as a result of prolonged exposure to the firewood smoke (Thompson, 2007). Larger stones are put on top of the firewood. The women determine the size and quantity of stones to bake the food with. The woods heat up stones at a very high temperature until they are red hot. When this happens, they are ready to bake the food. Every now and then a pair of tongs or aitoa (a traditional name) is used to pick up stones that have fallen off the inei to the ground and are put back onto the burning wood.

It takes about 3-4 hours for the inei to heat the stones well. Meanwhile, the grated cassava, sweet potato and taro are creamed with coconut juice. Shallots and other herbs are added to make them taste delicious. They are wrapped into small parcels with intact banana leaves as the main wrapper. This prevents the cream in the food from leaking out otherwise the baked food would become dry and tasteless. These parcels are secured with designated bush ropes.

When the inei stones are ready, an aitoa is used to remove the larger stones. These are placed on the metal tin beside the inei. The women use a long piece of wood to distribute smaller stones evenly in a circle. The food parcels are placed on small hot stones. Then larger stones are placed on top of food parcels. The heated stones bake the food. To enable this process to occur, banana leaves or other appropriate leaves cover the inei well. Finally, five or six large bags cover the inei to prevent the heat from escaping. Approximately, 2-3 hours later (depending on the types of food being baked. Taro takes longer to bake than sweet potatoes.), the coverings of an inei is removed. The women remove the food too.

Two main advantages of baking food in an inei are, first, the baked food retains the flavour and its nutrients, unless it is over-cooked. Another is that more food is prepared and baked in a single inei to feed more people than using a boiling method in a saucepan. On Saturdays, this method of baking ensures that inei bakes larger quantities of cooked foods to avoid unnecessary cooking on this sacred day of the Lord. The missionaries in the early 1990s introduced not only cooking pots, pans and eating cutlery, but, also newer methods of food preparation: boiling, frying, and steaming.

The inei is a very lengthy process and inefficient and exhausting for women. This method has been practiced by past generations due to lack of pots and pans. The foods were baked, grilled or smoked.
It is probably worth considering that baking drums could replace inei for baking in this village. If they are, not only would precious time and energy be saved but the health of women may be maintained due to proper rest and efficient means of food preparation especially when pregnant or nursing newborns. However, women must decide this for themselves.

Still on Friday afternoons, the dishes are washed and the woman tidies the hauskuk. Then she boils or steams green vegetables like beans or chopped pumpkin pieces in a pot over the fire. These vegetables are consumed along with the inei foods.

By 2-3 pm, the husband returns from a fishing trip with the catch. The older children or female relatives help to cook the fish. The children have their bath. If not, she assists younger children to bathe. By 5pm she completes her chores and has her bath. The main dinner, however, is served after the family worship. Most villagers attend church service on Friday night fellowship but families who live further have worship at home. Friday and Saturday nights allow busy women to slumber early. Unless they have other family members to help, most women perform demanding domestic chores on their own.

**Daily activities of the village men**

The village men are perceived as the head of the family, based on Christian teaching. Therefore, men make major decisions about the family’s work but sometimes they involve their wives too. A typical ordinary day for a man starts around 5-6am. He wakes up and attends to personal hygiene. He eats breakfast which is served by his wife. He conducts morning worship with his family, quite hurriedly so older children may go to school on time.

The husband often goes to the garden with his wife unless he has other chores to do in the community. Most gardens are up in the hills and take on average 2-3 hours to reach these gardens. The family walks to the garden. Men do many things including building fences to prevent pigs from destroying food crops. Sometimes they cut or clear the bush and often work for hours in the garden. They chop firewood and carry some food on their shoulders and return home. Main foods include taro, sweet potatoes, pawpaw, cassava, and green vegetables. Sometimes, the men harvest crops like sweet potato unless the wife is with him to attend to this activity. It is uncommon for husbands to do what is considered as women’s work, like harvesting garden produce.

The younger husbands usually go fishing in the afternoon when they return from the garden. This is acceptable practice so dinner will include fish which is enjoyed by all. After dinner, some husbands help with dishes then they sleep.

Mondays is a designated community day in which the men work together on communal activities. For example, they cut the tall grasses on the main roads or build community houses. Wednesday
mornings are devoted to do church work. The church officers and ordinary members clean the church buildings and the yard. On alternate Wednesdays, the primary school teachers invite some community men to repair classrooms or tend their gardens.

Most men go fishing on Fridays. Some thoughtful husbands grate coconuts and cassava for their wives before they depart around 6-8am. They usually return around 2 to 3pm. In this way the workload is shared between the couple. Generally, the men do the heavier and most difficult tasks. Single women and widows perform heavy chores by themselves, unless their male relatives lend them a helping hand, a common practice in this village.

**A typical day of the school children**

During normal school terms, children wake up early around 6 am and prepare for school. First, they wash and dress, eat breakfast and have worship with the parents. By 7 am they walk to school and have classes until 1pm. They have a brief recess at 10 am and brief lunch at 12noon. When classes end, they clean the classrooms and work in the flower beds or gardens if necessary. Then they walk home. Sometimes they play games like football in the village or play cat and mouse along the road.

There are no after-school formal programs like childcare centres or organised activities for school children to keep them occupied. Therefore, they are instructed by parents and teachers to return home immediately after school. They take homework home, which some parents assist them with. Some parents have had basic education so they are challenged in providing much needed support for their children. Some girls cook the family’s evening meal while the boys go fishing. But for some kids playing takes precedence until dusk.

During school holidays the children are free to enjoy time with friends and family by doing activities at home. Most parents discipline their children and involve them in performing lighter chores either at home or in the gardens. This prevents this group from boredom and mischief.

In my view, organised activities after school and during holidays are essential. These will promote out of door activities that children need to develop in their young days, especially practical skills of life. For example, they could learn to make new or mend torn fishing nets, sew baskets and make garden fences. There is also opportunity for village elders to instil Christian beliefs and values to the group. As they grow into adult life, they would have a balanced life towards God and others.

**Is education valued in Lomakunauru?**

According to my observation, not all parents in Lomakunauru value formal education. Wendy, an interviewee in Chapter Eight stopped studying because the parents did not support. Parents are able to make copra to educate their children and give them a better future. Some parents spend their money
on food and clothing while their children are deprived of education. At present, NIP government is subsiding school fees for children, so more children attend school and progress to grades 7 or 8 at Boliu, a boarding school. School children might excel in school, provided that parents support them appropriately. As the US Secretary of State, Hilary Clinton once said: ‘it takes a community to raise up a child’. Those words hold true for Lomakunauru community.

**Current education in Lomakunauru**

The majority of adults and older folks in Lomakunauru are semi-literate. When Australia colonised PNG in the past, perhaps education was not a top priority (Evans, Guy, Honan, Paraide, & Muspratt, 2010). Adults had literacy classes in order to read and write Basic English and mathematics. But starting in the 1960s, children have an opportunity to gain a higher education. My personal position is that knowledge is power and can transform lives if put to use (Evans, Guy, Honan, Paraide, & Muspratt, 2010). If women are to recognise their human rights to expect good maternal health and enact reform, they need education. We need women who know their rights and can have a voice (Darkwah, 2010) concerning aspects of their reproductive health and the right to receive such services. It is unacceptable to suffer from health issues that are largely preventable (Chamberlain & Watt, 2008; Darkwah, 2010). My opinion is that if daughters in the village are accorded the same opportunity as their brothers to be educated, then they would be empowered to make rational decisions about reproductive and sexual health (Darkwah, 2010). This has been the case in other countries, where education of girls and women has contributed to development of families and nations (United Nations News Centre, 2008; Utomo, Arsyad, & Hasmi, 2006; Weiner, Billamay, Partridge, & Martinez, 2011). However, I respect the choices of villagers and will journey alongside them, to empower them to seek formal education especially for girls and women. More girls are attending school nowadays than in past. This increase is made possible as mentioned by the NIP government whose goal is to provide universal education to the people and thus achieve the MDG ‘Education for all’ (Gore, 2010; Jahan, 2010; United Nations, 2008b). The school kids parents and the NIP government share the cost.

**Adult education in Lomakunauru**

Most adults now living in Lomakunauru acquired primary education but some reached secondary and college. My opinion is, none of the latter group had been appointed as leaders in the Lomakunauru government. This might have implications for past and future developments in Lomakunauru (Australian Government, 2008d). The people are currently working towards building a community centre which would include a public library to house the community’s reading materials and computers.
This is the result of the community spirit that is demonstrated amongst the villagers, and working towards building a health post in future is likely to be successful.

The women who are now involved in raising funds such as selling traditional mats and food. Chamberlain shows that where women’s self-worth and access to health are met, we see improved health of the family and the wider community (Dressendorfer et al., 2005).

In the Newcastle study, the participants suggested that a possible strategy for the village women was an educational package. This package would include essential topics pertaining to pregnancy, birthing and the postpartum period, as listed here:

1. Pregnancy trimesters
2. Signs and symptoms of labour
3. Stages of labour
4. Preparation for the birthing process
5. Danger signs and symptoms of pregnancy and referral
6. Care of personal hygiene for both mother and baby
7. Family planning
8. Cultural taboos and practices about pregnancy and birthing: beneficial and harmful practice, and discussion of harmful practices and myths.
9. Encouragement of pregnant women to attend antenatal clinics regularly so high risk cases can be detected early and referred to hospitals.

When village women heard that the Newcastle group had proposed a learning package for them they were excited to hear about it. But instead of asking me to assist them prepare the education package, they chose to have basic midwifery training sessions with the health staff of Pakasi Health Centre. It must be appreciated that the group have low literacy levels, so they use oral forms of communication rather than written materials like books to learn from. They gladly proposed to have an informal oral session, integrated with hands-on practice. They suggested that a charge nurse from Pakasi Health Centre could offer basic midwifery training for them. They claimed that training would provide essential knowledge and skills to deal not only with normal pregnancy and childbirth but also any complications in future. As the group was driving the action, I assisted the women’s group leader to invite the staff member of Pakasi Health Centre and explained the request of the women to her. It is clear that the village women, unlike the Newcastle group who are highly educated, did not seem to find the learning package appropriate for them. Living in this rural village, it was not easy to obtain books from which they could seek information from. They were not accustomed to learning packages.
**What are the opportunities for children if they don't go to school?**

Children leave school for various reasons but two common reasons are unaffordable fees and disciplinary problems. They stay home and help parents with chores. In the urban centres of PNG the GoPNG has established alternative programs which school dropouts might pursue. However, in the Murat region none of these training centres exist. Consequently, Murat school drop-outs are restricted from pursuing other options. It is up to the parents to provide means so they attend their preferred vocational training schools.

School children live with guardians while they study in towns or cities. Young people may undertake any of the following programs below. The PNG Department of Education approved these training since 1973 because the GoPNG is keen to support young PNG citizens to be educated. For instance, vocational training courses, distant education and certificate or diploma courses are offered for school leavers.

**What financial support does the government provide?**

According to personal observation, the NIP government has plans to provide financial and technical support to students. This notion was clearly articulated by Sir Julius Chan, provincial governor during a delegation speech on Mussau in 2010. As mentioned, the NIP provincial government is assisting school with teaching resources.

In past decades the NIP government, through a rural development scheme, contributed financial support towards some Lomakunauru people who planted vanilla beans. Sadly, this project was phased out because of a lack of international markets.

The people of Lomakunauru and other New Irelanders are benefiting from social security since the new governor was elected. Social security commenced nearly 5 years ago and is given to elderly and disabled persons. It is believed to be $A30-00 per month. Another, has stated is tuition subsidy for students throughout the province. Although such has been a blessing to many lives, the sustainability in future is bleak. If he remains in power these monetary benefits might continue but if not, his successor may choose to continue or terminate them.

**What material possessions do women and their families own?**

In general, most families have little material property, including money, during their life time. According to the report by World Bank, most people in rural PNG have less than one dollar per day (World Bank, 2008b). The exception for people of Lomakunauru is that they seem to have good clothes and some books, including the English Bible and the SDA church hymnal.
At present, the Bible is undergoing translation into the Mussau language. Some villagers are assisting to translate the Bible. The main household items beside books are clothes and bedding: traditional mats, pillows and mattress (only those who can afford them), kerosene lamps. The kerosene is expensive, so some people use home-made coconut oil to use as a substitute. The coconut oil, however, produces black smoke that stains the walls of the house. But the flame is dim and unsuitable for reading. Everyone has several cooking pots and eating utensils. Some people have semi-permanent buildings while others still live in traditional buildings. Every house has doors and windows to allow ventilation. There are separate bedrooms for the married couple and the children. Overcrowding is not a problem nowadays because families own separate houses without adequate bedrooms. The hauskuk caters for food preparation and eating. It is located a few metres away from the family house.

**Telecommunication, radio and television**

Access to basic telecommunications is only available at Epo government station. This telephone is subsidised by Telikom Company, which was recently PNG’s leading telecommunications service provider. There is no network for live television programs. Only a few villagers have transistor radios listen to provincial, national and world news and Toksave (messages sent by person to person/s throughout NIP). The television sets are used during the holidays to watch DVDs.

**How is time perceived in Lomakunauru village and western societies?**

Anthropological studies reveal various theories and perspectives of time (McCourt, 2009a) and popular philosophers have described meanings of time especially in developed nations. In the Melanesian context, especially in the Murat area, time is not regarded as a resource. Lomakunauru ancestors viewed time according to the rising and setting of the sun. They observed the movement of the moon and the stars. There are no clear seasons but the people know when to expect different trees to bear their fruit, and when different kinds of fish will be plentiful.

Before the arrival of Christianity, people had no understanding about western calendar months, or a day being divided into periods called hours. Instead they depended on the sun to perform activities. Sounds of insects and birds (chickens were later introduced by missionaries) welcomed the dawn of a new day. People woke up as early as 4-5 am. Men performed their roles like fishing, gardening or hunting. The decision to undertake such activities was made by men who knew the night sky and knew the breeding seasons of the land and sea creatures. They also knew when to plant crops in the gardens.

The fishing trips were timed by observing the new moon. For instance, during the new moon, the men went fishing when one tip of the moon pointed out to sea.
This was an indication that a certain type of fish were breeding just off the shore, enabling huge catches by using fishing nets. When the new moon pointed towards the land, many creatures multiplied. The hunting trips were a huge success.

The women performed daily domestic roles such as nursing babies, weaving mats, and preparing food. Pregnant women were unaware that pregnancy took nine months before they would give birth. But the TBAs or older experienced women observed the level of the abdominal fundus. When they noticed that the fundus had receded, they believed the baby’s head had descended into the pelvic cavity. This was a strong indication that the woman was about to give birth. She avoided heavy chores like gardening. She stayed home to anticipate a new family arrival. People viewed labour as the normal phenomena of a woman’s own natural body processes. They were not anxious about the longer gestation period.

Other family members assisted with domestic chores until the mother gave birth and for the next few weeks. In today’s obstetric practice, pregnancy is calculated in weeks and days and the estimated date of birth is seen as important. A term gestation is approximately 38-40 weeks (Downe & Dykes, 2009). Meanwhile, the pregnant village women stayed indoor at night for fear of roaming evil spirits and sorcerers who might cause harm to the unborn child. During labour and birth, women showed resilience and strength by staying calm. Screaming and crying aloud were considered unacceptable. They just gritted their teeth and tolerated labour pain. Van Hollen observed that women from India had a very positive attitude towards labour. They gritted their teeth and tolerated the labour pain (Van Hollen, 2003).

Calculating the exact timing of labour was unknown to pregnant women and TBAs. The imminence of the birth was only noticed when the baby’s head was crowned as the mother knelt or squatted.

Today more Melanesians are more aware of the western attitude to time, but it is not important. In western societies time is crucial (McCourt, 2009a). In Lomakunauru punctuality to work and worship programs is still a challenge even if it is seen as a virtue. In addition, planning for daily activities does not depend on specific times. Instead, it is commonplace to say, ‘I am going to do this activity in the morning, afternoon or at night’. They will use these same terms when they tell people to join in an activity.

When there are group meetings, it is common for some members of the group to arrive late. A popular term that westerners who have lived and worked in PNG use is ‘PNG time’. Instead of arriving at a meeting at an appointed time, for instance, 10 am, latecomers might arrive 1 to 2 hours later. An exception is attending church services, when people are usually punctual. When the village PAR group set its norms, one was punctuality. I was pleased the women arrived on time, a change they learned through the process of this study.
On the other hand, life is ‘laid back’ in the village. Many things are done unhurriedly, which can be frustrating for people who are efficient time managers, in particular, westerners. The local church has a wall clock so the time keeper rings the bell for services. In the western world, time is everything and everything revolves around time. In my view, more activities can be accomplished if Lomakunauru people are punctual to work and complete assigned tasks on time, whether large or small.

**Government services: a free handout mentality**

The mentality for many people in developing countries is to expect free government goods and services without doing anything to help themselves (Australian Government, 2008d; Duncan, Batten, & Gomez, 2009). Some people rely on the government to provide all the technical expertise and financial expenses to provide the healthcare services they need. If these attitudes changed there could be a driving force for local villagers to mobilise their own communities towards development (Aronson, Wallis, O’Campo, Whitehead, & Schafer, 2007; Australian Agency for International Development, 2009). Then the government may just provide outstanding means beyond their capability, financial or technical. In the past, the Lomakunauru people contributed money to build a large church in the village. The former member of the NIP government also contributed too. Villagers

Recently, the LLG Ward highlighted the difficulty of sourcing funds allocated by the NIP government for the Murat region. Often the Lomakunauru community, like many others in the Murat district, may tend to rely on the government’s financial support before they embark on development projects. As it did for the health post project, it will require incentives of the people to raise some funds to build it. Should additional funds be required to complete any projects, then funding could be sourced from the NIP government or development aid partners. If the people realise the significance of the health post, then they allocate what they can towards the project. When everyone contributes money, it will pay for the new building. After all, there are people who possess special gifts and talents that will benefit the project and the villagers when the building is completed. Then basic health services become available right in Lomakunauru. Further, our younger people ought to know the words of President Kennedy of the United States who said in his inaugural address: ‘ask not what your country can do for you—ask what you can do for your country’.

**Who holds power in the village?**

According to personal observations, it is the men who hold power. This starts at home within the family circle and extends to the church and the LLG. Men make important decisions and control major roles and activities that affect the lives of people in the village. Women tend to be followers and subservient to these roles. It seems that most women rarely play an active role in decision-making processes, even in choices which have significant impact on their lives.
For example, in the Murat LLG system, twelve males dominate the ranks of government, and just two women. I noted in my field research diary that all except these two women had attended an important meeting one Friday in 2010 being organised by the Murat president and other political representatives at Epo. This is a similar situation to the recent PNG national government, where only one female politician sits amongst 108 male counterparts (Duncan, Batten, & Gomez, 2009).

**Gender inequality**

The women in the participatory action group assigned their group leader to speak with the Lomakunauru leader about the proposed health post to be built in the village. Following that, these same leaders would make an announcement to the general public at one of the Monday morning meetings. The women wanted everyone, including women who had not participated in the PAR groups to know about and hence support the health post in order to promote maternal health. Interestingly, the difficulty faced by women to seek greater negotiation and collaboration with male leaders could be attributed to gender inequality at the village level. Since men are more powerful than women they are the majority in the leadership roles thus leaving the women less power to bargain successfully in order to have their voices heard. Gender inequality is still noticeable in Lomakunauru. Some men view women as inferior to them, even though the women make a major contribution to the development of the community. Further, men make major decisions about health care services for the entire community, including maternity services. Leadership roles in the village are predominantly held by men, which impacts on the community’s ability to function as a democratic society. An example in Murat involved an important health management committee with only one female member. Discrimination against females at all levels of government and communities in PNG is still prevalent today (Abirafeh, 2009).

**Leadership and local government in Lomakunauru**

As observed in figure 1, all the Mussau villages have a Village Planning Committee each, which is accountable to the sub-district administrator (SDA) located at Epo government station. Just recently the committee had two women and several men who are active members. The team has a male leader, a female deputy leader, Ward Four President, a Liaison Officer, a Peace Officer and the Magistrate. One of the major responsibilities of this committee is to plan for future development of the Murat community and to maintain law and order. The peace officer announced that he would arrest anyone in possession of illegal substances. Offenders would be transported immediately to Kavieng unless the culprit paid the full penalty of AU500.

Despite low literacy amongst these committee members, in my opinion, some of them did their best to govern the local community. On Monday mornings, the people attend the meeting held by the said committee. An average of seventy people attends these meetings, which are deemed as the
‘government day’.

Announcements, information and news about government issues are shared. In the absence of newspapers and the internet, this is the best way for leaders to communicate and interact with the community. All villagers have a voice to express their views or share information at this meeting. Through role modelling, the leaders encourage young people to be good citizens. As a researcher, I attended these meetings at times. Tapping into these existing structures was a good way of staying informed about local issues, and also an opportunity to discuss the research study.

The male hierarchy are the most significant leaders in the local government. It was noted that the same leaders in the Village Planning Committee tend to hold leadership roles in the local church. While I was in the village, the chairman of the Village Planning Committee invited both men and women to express their interest in joining his leadership team. An established process for election was in place. If willing, the person would approach him and give his/her name. After about a month, all the villagers cast their votes and a new office bearer of the Village Planning Committee was elected, evidence that democracy is beginning to work at grassroots level. Unfortunately, only two women were willing to take up leadership roles. The majority of women were hesitant to undertake new leadership roles even though an opportunity was offered them. Women told me that later that they preferred to stay in their comfort zones to avoid challenges of being a leader. Further, Lomakunauru community supports the domesticity of the women’s role. Having equal numbers of men and women representatives in the community leadership team is yet to be accomplished.

As highlighted, the local government convenes meetings on Monday mornings. At these meetings, one of the announcements was made about clearing the forest to make new roads, with assistance from the Works and Supply division, in Kavieng, NIP.

**Law and order in the village**

Until recently, Lomakunauru was one of the most peaceful villages on Mussau. But nowadays some young men and women are taking home brew, a beverage produced locally by using fermented fruits, especially ripe banana. Marijuana is another illegal drug in PNG which was introduced by urban visitors to the village. One night an intoxicated man went to a family home and terrified the household. The peace officer was called to the scene and filed a report on the incident. He intended to arrest the offenders and transport them to Kavieng unless they paid the full fine of K1, 000, equivalent Australian $500.

A court hearing was convened to address the case. The offender confessed that he could not pay the full amount and was scared to be imprisoned in Kavieng. He pleaded with the Peace Officer and the Magistrates to show mercy to him; that he was willing to pay monthly instalments of K100 until the total amount was paid. Mercy was granted him. This particular action had not been announced earlier by the peace officer. In an earlier announcement he had threatened to take offenders straight to
Kavieng. This is an obvious flaw in the local village court system. Leaders promise to uphold laws and penalties as stipulated in the government policies, but in reality they fail to implement them. Whether any action was taken against the offender if he failed to pay the full amount is unknown. In my view, in future such offenders ought to be assessed regularly by the village leaders and the community for further anti-social behaviour. If the same person continues to violate set rules and regulations, they must be sent to the police custody in Kavieng and be charged accordingly. Perhaps, in doing this, younger people might learn and become law-abiding citizens. The current Lomakunauru leaders have a huge challenge to grapple with such problems.

**Christianity in Lomakunauru village**

On 18 April, 1931, the first SDA missionaries landed in Lomakunauru. The village chief accepted the biblical teachings and led the people to embrace the new faith. The Spirit of God converted the entire village population to Christianity through the missionaries’ preaching. Several months later, the gospel was shared with neighbouring villages of Mussau, Emirau and then gradually it spread to other parts of PNG. Since then all villagers are SDAs. The church plays an important role in community life. Local church leaders implement responsibilities, not only on Saturdays during worship programs, but on Wednesdays and Fridays too. On those days, church officers do general cleaning and arranging flowers to decorate the church. Many people attend Saturday Sabbath worship services except a small group of young people but the church is opened to them.

In April 18, 2010, I observed a special jubilee program held in Lomakunauru. The church officers planned a special program to commemorate the arrival of SDA mission. The theme of the celebration was, ‘Rekindle the light of our pioneers’. The minister challenged everyone to uphold the gospel flame which the forefathers had embraced more than seventy years ago.

The SDA believe in the Biblical teachings. One of the doctrines being taught in the Bible is the observance of Sabbath as the Lord’s Day. The people have worships on Sabbaths and rest from physical work. There are exceptional activities that are done though. For example, people visit the sick and elderly at their homes or at the health centre. According to the Bible, there are bountiful benefits that are gained by observing the Sabbath day. First, fellowship with fellow believers strengthen each other’s faith in God as the Creator and Redeemer of mankind from sin (Bible Society, 1995). Another benefit is, the body rejuvenates itself in preparation for the new week ahead.

There are four major church services that are held on Sabbaths, namely Friday evening fellowship (FNF), Sabbath School, Divine Service and the Sabbath closing service. There are several traditions or rituals that the church performs. They are baptism and the Lord’s Supper or Communion Service as is also known. The latter is done every quarter.
In Lomakunauru church, the members, including visitors who have been baptised, are invited to take part in this program. There is also a foot washing ceremony which precedes the Lord Supper. The main reason for foot washing signifies humility of heart and love for people as Jesus Himself had demonstrated. It is also about egalitarianism, as every human being has an equal status in the sight of God, regardless of one’s background. In separate gender groups, when everyone has completed the foot washing ritual, all the women stand in a circle and hold each other’s hands. Then one or two members pray. The rite of baptism in the Adventist church is achieved by immersion alone (Bible Society, 1995) and is performed only by ordained SDA ministers.

**Health services in Lomakunauru**

Basic health services are offered in Lomakunauru village by a retired male health worker. He treats the sick from temporary hut but refers very sick patients to Pakasi health centre and he also works with them. For more than a decade, the NDoH gave directives to the Health Division of NIP to conduct the village health volunteers program, similarly to other PNG provinces (Papua New Guinea National Health Department, 2010). This was quite a successful plan in the Murat district. A goal perceived by the department to drive basic health services at the grass roots level. These volunteers were also trained to assist pregnant and birthing women at home. Currently, most of these have not been functioning due to several unknown reasons.

**Traditional birth Attendants**

There have been TBAs around the globe for centuries and Lomakunauru is no exception. They were usually older women (Homer et al., 2012), whose work is highly regarded and respected by the community. A TBA at Lomakunauru explained to me at the time of this study that she had learned to assist women in labour through her own birthing experiences. Another TBA said she was amongst the women’s health volunteer group who had been taught previously by a trained midwife to support other women during pregnancy and the birthing process. But, she claimed, the formal health sector failed to provide ongoing supervisory visits and basic protective equipment to enable each TBA to function well. Basic items included gloves and umbilical cords. In spite of that, two practising TBAs have continued to provide support whenever necessary. The village PAR group, in Chapter Nine, ten newly TBAs were appointed. These wanted to receive basic midwifery training in order to recognise danger signs and symptoms of pregnancy and labour and make timely referrals of high risk women to the health centre. Or where necessary, they can administer lifesaving measures to women and their babies. The literature has numerous accounts of TBAs.
contributing to maternal health in the rural areas of developing countries where formal health services are acutely short of trained manpower (Chen et al., 2010).

**Public health issues**

As discussed in Chapter Two, public health has a two-fold approach, namely the new and old public health. It is understood that the ‘old’ or basic public health measures such as clean water, sewerage, adequate food and access to literacy should not be taken for granted, certainly not in Lomakunauru. This village does not have running water, electricity or the internet. Some of the roads near the village are currently being paved, but the main hospital at Kavieng is not accessible by car except by sea transport. Most villagers travel by walking or paddling canoes. There are a number of public health issues observed in Lomakunauru being listed below. These include malaria, dental problems and domestic violence.

**Malaria**

Malaria is endemic in the area. The retired local health worker treats those affected by malaria. Untreated malaria has serious complications and anaemia is the most common complication, especially during pregnancy (Ekejindu, Udigwe, & Chijoke, 2006). In the late 1990s, a primigravida (first pregnancy) in Lomakunauru was seen by a nurse who was also her relative. She diagnosed her condition as anaemia, and advised the young woman to give birth at Kavieng hospital. She did that but she suffered from severe postnatal bleeding. Emergency medical care was critical to save her but she died tragically and prematurely. A grieving husband, motherless newborn, and a heartbroken family and relatives in Lomakunauru were devastated but powerless to take action.

A number of programs are under way to combat malaria in developing countries, including PNG (Brabin et al., 2008; Sirima et al., 2006). In July, 2010, I observed a group of Rotary International members who visited the Murat islands and distributed mosquito-treated nets to villagers. They involved the leaders from LLGs in ensuring adequate distribution of these treated nets to each household. The aim was prevent malaria infestations by killing mosquitoes with the insecticide on the nets. The program is called Rotary against Malaria (RAM). Similar work, according to the visitors, was implemented throughout PNG distributing treated nets as a viable strategy to combat malaria.

Lomakunauru village villagers usually remove stagnant water and other mosquito breeding grounds to prevent mosquitoes from causing malaria. These cut the long grass near their houses. Still, many people continue to get malaria. The leader of the Village Planning Committee distributed two to three grass knives per family one Monday morning. He challenged all families to maintain a clean home environment. Some families, however, have no proper holes in the ground to bury non-degradable items, including empty tins.
Dental problems

Dental problems were uncommon in the past while I was growing up as a school child because the Kavieng dental staff visited schools and villages regularly and treated oral problems. But nowadays, the issue is common amongst people due to tooth decays and abscesses. Although people consume garden foods, and do not chew beetle nut, poor oral hygiene is believed to be a major cause of this condition. Toothbrushes and tooth paste are lacking to maintain oral health. At the time of this study, I observed many villagers suffered from dental decays. Pain and swelling in the mouth prevents an affected person from eating well and is at risk of wasting and malnutrition. That could lead to a low immune system (Kaylor, Polivka, Chaudry, Salsberry, & Wee, 2011). Pregnant women with dental problems are prone to many diseases like malaria and anaemia. That means, their immune system is depleted due to poor or lack of proper nutrition (Akinleye, Falade, & Ajayi, 2009; Falade et al., 2007; van Eijk et al., 2007; Yartey, 2006). When pregnant a woman attends antenatal care, her oral health is not assessed thoroughly unless she complains of pain and swelling in the gums. This is unlike countries like Australia (Boyle, 1994) where a thorough physical health is performed on a pregnant woman to ensure she is healthy.

There are no dental services available in the village or at Pakasi health centre. The health workers supply antibiotics and pain killers like paracetamol (if available) to treat the infections. Often some people use herbal agents to stop the pain or salt to rinse the mouth. Patients with severe dental infections or needing tooth extraction are referred to Kavieng hospital. The dental clinic at Kavieng lacked trained dentists to provide comprehensive oral health care to suffering patients who had been referred throughout the entire province.

Domestic violence

Domestic violence is perpetrated by men against women or other men (Jones, 2008). This was observed while I was in the village. Although wives are battered, the community has not taken this matter seriously to safeguard them from further abuse. As a result, no safe shelter was built for victims of violence to seek refuge in. The battered women remain at home amidst a hostile environment. Very few women leave their abusive husbands temporarily and reside with their own parents. According to personal observation, women often suffer from emotional trauma in silence by keeping untoward emotions within themselves without being supported to vent out these disturbing emotions (Jones, 2008). It appears as though Lomakunauru community condones domestic violence even though the biblical teaching and the government forbids this arrogant practice against women.

The perpetrators of wife-beatings in Lomakunauru are not charged by the local village court even though it a crime in PNG, based on personal observations (Jo, 2009a). Sometimes, the local church assists estranged couples to resolve marital conflicts, but only if the husband allows this to happen.
Often, wife beating is viewed as a private domestic affair, and men resent external interference. My view is, the church and political leaders of at Lomakunauru should play a vital role in providing safe refuge for women to access during domestic violence. During such time at the temporary shelters, marital counseling services to mitigate such public health problems could be addressed. After all, prevention of domestic violence is one way of improving health of women in the village. But the women should make decisions regarding such suggestions in future.

**Sanitation and water supply**

Water like air means life to all living organisms including humans. Lomakunauru does not have water supply; the people either drink tank or water from the stream. The rain water is safe to drink as long as it is collected in clean receptacles; tanks or 44 gallon drums. Those who have no water tanks fetch water for free from family or neighbours. During long dry seasons, water scarcity forces some people to paddle in small dug-out canoes, an average of one hour to collect drinking water from streams away from the main village. My view is to erect a water supply through support from the Works and Supply department of international development agencies (Asian Development Bank, 2006; Australian Government, 2008d). A feasibility study is vital to ascertain pros and cons of building such project. The NIP government may assist with technical experts and skilled manpower to develop this project. Water pipes could be dug into a natural deep well just kilometres from the village. The water supply will benefit everyone at all times. Women in particular, would save time and energy. No more long distance travel to fetch water. Most important, during homebirth, running water would ensure that TBAs or health workers practice the 3 Cs advocated by the WHO (Winawi et al., 2006). One C means clean hands to prevent cross-infection from the TBAs to a birthing woman and her newborn baby. Health of populations is largely determined by safe drinking water and proper sanitation facilities (Marmot, 2000; Muchukuri & Grenier, 2009).

There are three forms of sewerage systems used in the village. First are pit latrines. The families themselves build a six to eight feet pit latrine some metres away from the house. Another type is similar to pit latrines but is more modern with a vent, and toilet seat bowl with the lid. This is by far the best type. But is quite expensive for ordinary people, so only twelve families have already built their own toilets during this study. The local church does not have a pit toilet. During Sabbath church services, some people walk for about twenty to thirty minutes to the beach. This is a traditional sewer to the sea system in designated areas, located at the outer ends of the village and, for decades, this was a common practice. This, practice, however, contributes to the water pollution.

**Economic issues**

People continue to experience challenges in making money to sustain their livelihood. As Vuvu (2008) argues, many rural people are struggling to make profits in PNG due to various factors. In
Lomakunauru, the people engage in planting and harvesting rubber trees, copra, fishing and shell diving to sell their items to buyers. Rubber and copra require enormous time and energy to prepare the raw product before they are sold. The pittance gained from these products are, according to my observation, only equivalent to $0.25 cents per kilogram and fresh fish for $1.50 cents a kilogram as in Australian dollars. Women contribute to a family’s income. Currently, some villagers are clearing the roads to earn cash through the casual contract basis by the Works and Supply Department based in Kavieng.

**Microcredit**

In my observation, the Murat LLG is yet to offer financial support to locals to practise micro-credit financing strategies. It is, in my view, advisable to seek external assistance to assist villagers learn about and implement microcredit approaches which, if successful, could alleviate poverty amongst people. For instance, the Murat LLG might issue small loans to villagers to embark on sustainable development-type projects such as vanilla cropping or fish farming. After a few years, one could start earning an income, then repay the loan and, thereafter, make profit themselves (Chang, Be'Soer, Wali, Anjan, & Ramita, 2010).

**Income generation projects**

The villagers are keen to have community-type development projects for income generation, but the major hurdle is finding a market for them. A few years ago villagers were enthusiastic about planting vanilla bean crops because it was going to provide a good income. But when the crop was ready for harvesting, they could not sell their produce due to a lack of buyers. The product may have enjoyed a market, as limited research had indicated, but according to rumours, corruption destroyed this entrepreneurial initiative. Some sellers in other parts of PNG had cheated the buyers by packing nails to increase the weight and boost profits. The market was lost. The remote location of the Murat region affects many small scale businesses which people undertake. Unfortunately, the people’s disappointment from such corruption and by continuing to live in a subsistence manner, their poverty is reproduced.

On the other hand, the rubber trees became a profit making project as explained but low prices caused many growers to discontinue with it. Generally, the people are hard-working. The wild pigs, however, scavenge most of the garden crops, including those that are newly planted, an indication that the pig’s population has doubled since the past. As a result, they destroy everything, including banana and pineapple suckers, an unknown thing in the past. This makes gardening quite difficult because fences built should be strong to prevent pigs from gaining access to the gardens. Failure to do so leads to a loss of much time and effort spent in planting food crops. I have observed that family members help each other with gardening and are sustained through a reciprocal approach. This means, that
when one shares food with someone else, this can be reciprocated either with food or with other items like clothes or salt.

**Making gardens and harvesting food**

In this village, the gardening is done high up in the steep hills and vales. All villagers have a potage garden, often some distance away from home. Despite the unreliability of seasonal garden produce, because of rampaging pigs and bad weather, women, who are the chief cooks in the family, understand what is required for good nutrition, preparing and eating regular balanced meals. Most women in the village have good food knowledge, but access to food is not always possible. There are many challenges that impinge on their ability to provide nutritional meals for the family.

The people continue to practise subsistence-based agriculture. Their staple foods are sweet potatoes, cassava, taro, banana and other fruits and nuts. Fish is the main source of protein for the people on Mussau Island. When I was home recently, there was a surplus of breadfruits and natu (a traditional name of a sweet-fleshy stone fruit). According to older people, whenever the garden fails to produce an adequate supply of vegetables, fruit, trees produce abundant fruits, which supplement people’s diets.

There is potential to preserve fruits and nuts to ensure food security during a drought season. But to date, food preservation technology is not yet practised in the village. Sometimes children and their parent are hungry. A lack of nutritious food is a possible cause of malnutrition and iron-deficiency anaemia, which aggravates maternal ill-health during the childbearing period. But children, if they are fortunate to have an education, are fed at are top-up school. From personal observation, primary boarding schools provide just two meals a day. The two meals, scheduled at 10 am and 5:30 pm, mainly comprised of boiled cassava or sweet potato and a handful of green vegetables. Often students were hungry in school. Many were sick with malaria and anaemia, and missed classes. When speaking to a group of school children, they claimed to have missed classes or other activities because of hunger. The parents sometimes brought food to school but fresh food does not last long where there is no means of refrigeration, preserving or storing food. Besides, a parent would have to walk for hours just to bring in daily food supplies, and this was practically impossible.

From observation, many people eat at least one main meal a day, which is usually before bedtime, and they take a light snack in the mornings. Some people have a habit of skipping breakfast in order to work in their gardens earlier in the mornings. Even carrying sufficient water for drinking is difficult as people carry baskets, bush knives or tomahawks to the gardens. Consequently, many people take less water whilst working in the hot tropical sun. In such conditions, the body sweats profusely, causing significant loss of body fluids.
In fact, some people have reported symptoms of urinary tract infection possibly due to a restricted fluid intake and poor hygiene. The consequences of a lack of drinking water are serious (Carroll et al., 2007).

All the villages on Mussau except for Loaua and Mananusa, two outlying islands, are fraught with an enormous task. Large herds of wild pigs are a huge threat to villagers. Although some men go hunting for pigs, it seems that the pig population continues to increase rapidly. For religious reasons, villagers are restricted from eating pork meat. Some people resort to buying and eating refined foods like rice, although it is less nutritious and more expensive.

The garden fences are built from timber and are tied with specially made ropes. Only a few families have factory-made pig wires which they use for the garden fence. The wires are expensive, an equivalent of $AU160 plus, for just a few metres. The scavengers have cunning skills. They use their long snouts to dig holes underneath the fence and crawl into the gardens. To erect and complete an average size fence takes six to eight adults, including men and women in two weeks. Such destruction of the gardens frustrates everyone. Moreover, this prevents an opportunity of selling garden produce, because there is little return from the garden despite of much time and labour being invested in gardening. In single-parent households, some women experience a greater burden of building fences without the support of males or a husband. Although women are skilled in cutting and clearing the bush for gardening and building fences, an extra pair of hands makes work and life more tolerable. But in the absence of such support, most women wear their physical health down by doing heavy chores at home and in the garden. This may be interpreted as a form of oppression inflicted upon them, but as illiterate women they are acutely unaware of their basic human rights to stem the tide of abuse.

**Cooking food**

Everyone uses wood fuel for cooking food. Only several families have two burner- gas stoves, which warm the food on Saturdays. Usually, women cook the food but sometimes, older children help out with this chore. The main forms of cooking foods are boiling, baking, frying, steaming, roasting and grilling over open charcoal fires. Fish is usually boiled but seldom fried, barbequed or smoked. As shown, women in Lomakunauru as in other developing countries not only are primary food gatherers but they also clear the land and plant crops (Weisman, Chuang, & Scholle, 2010; Yuval-Davis, 1998).

**Fishing**

Fishing is a man’s sole responsibility in Lomakunauru. Fish is the main source of protein for the people on Mussau Island. Fishing gear includes factory-made nets, fishing lines, spear guns for diving and hooks. Although factory nets are expensive for most people, these saves time compared to
the local traditional fishing nets. The latter needs special ropes, and specialised skills as well as time and effort is spent making large nets. Only certain men know the skill of making nets. In the past, most men participated in the fishing trips to catch more fish for the community. This tradition to provide fish communally is near extinction, as many younger men these days go fishing by themselves and could only feed their own families or close relatives.

On the other hand, a few families own and use outboard motors for trawling to catch bigger deep sea fish like tuna and red snapper. Trawling to catch fish is uncommon except for special events like Christmas and New Year parties, or weddings. Dynamite fishing is illegal in PNG because dynamites destroys marine ecology and is a serious threat to the sustenance of marine species. Unless the men comply with the law, future generations will not enjoy and be nourished by consuming fish.

The coral reefs on the Southern and Western parts of Mussau are, at present, teeming with rich marine life. This has potential for fish farming, which can be tapped into to create an income for villagers. In my opinion, a small fishing project can achieved with the help of the Fisheries Department and the NIP Government in Kavieng. During my field research, the NIP Governor and his member cabinet visited all the outlying islands. I was privileged to listen to the governor’s speech regarding their plan to assist villagers to engage in community-type development projects. The challenge, in my opinion is to collaborate with the grassroots populations in Murat and facilitate technical training from experts who should offer practical skills and good governance. If so, it may lead towards establishment of appropriate projects, which will produce positive outcomes for people and be sustained in the long term. The people should have ownership of the projects. The experts include fisheries officers, primary industry and agriculture officers, health officers and economists, to name a few. This is the essence of the PAR approach that is being advocated here, which works not only for improving maternal health but is also a model for other community development projects (AusAID: Australian Government, 2006a).

**Community land**

In Lomakunauru, land is owned by the females’ clan as expressed, especially the older women in the family. The male leader in the family or clan consults with significant females in making decisions about land distribution or allocating land for communal gardens. In the past, the entire community worked together in a communal garden which had been allocated by the village elder/s. Village elders divided this community garden into plots of land so that each family could grow their crops. The main crop was a root vegetable called taro. Working together in a communal garden and sharing hard labour saves time and draws the community together. Without men to assist them, single women and widows benefited from this practice. Further, bigger gardens had better yields. But communal gardens barely exist today. Instead families and clans tend smaller gardens by themselves. A decline in communal gardening may be attributed to disputes around land demarcation and conflicts about
land ownership arising in the 1960s and early 1970s. Although these government land regulations were implemented nearly forty years ago, they have created dissension amongst many tribal groups and clans, not only in the Lomakunauru village but throughout the Murat area. Sadly, in this village, land disputes are still obvious among some tribal groups. For example, in June, 2010, there was a village meeting between a number of tribal groups and a rival clan. The latter clan claimed ownership over a huge land area of the village. The former group disagreed with their allegation, so a magistrate was forced to convene a village court meeting to ascertain the rightful land owner. An appointed spokesperson of the tribal land was a senior older male who represented his clan. A number of witnesses testified that his land boundary mark was correct. But the magistrate did not make any decision concerning this and today the court hearings are ongoing. Further, village land mediators have convened numerous meetings. They listen to land disputes, but they do not have the power to make a final decision concerning who is the rightful landowner and who is making false claims. As a result, this problem continues to breed unnecessary frustration and conflict amongst some villagers, not only amongst their rivals, but they no longer trust magistrates to resolve their problems. In fact, some villagers perceive the latter group as incompetent. It was alleged that corruption was alive, and that this group receives a regular salary from the local level government for service that they are expected to deliver.

Just recently, villagers and magistrates devised another strategy to use to ascertain the rightful land owner. They planned to convene another meeting to listen to the ‘ass banana’ (the term describes the total number of generations, and the descendant’s names, ever since they first settled in Lomakunauru village and leading to current generation). The land mediator announced that each spokesperson would list the names of his maternal descendants while everybody including the magistrates listens to him. This person should give accurate names of all his generation and descendants, and be supported by more than two village witnesses. Only then would the magistrates make a favourable decision to award the land to him. In my opinion, there are risks involved with such action. As shown, the magistrates still lack power to award land to the rightful owners. They should show fairness and tact in dealing with this sensitive matter to ensure that the strategy maintain peace and does not promote chaos amongst rival groups.

Social structures

There are many variations, but in Lomakunauru, a family comprising of husband-father, wife-mother and the younger children, all live together and share a main house. This is a similar practice in other indigenous Melanesian societies (Dallos, 1991; Howes, Guerra, & Zucker, 2007; Moore & Riley, 2010). The average number of children per family is about 5.5. The main family house has separate bedrooms for older children which range between two to three bedrooms. Some have permanent or semi-permanent buildings and a separate hauskuk for cooking and eating. Some eat in the dining
room of the main house. Those who cannot afford modern building materials use locally available timber and sago palm leaves, which are woven together with bush ropes and placed on the roof. Older grandparents are cared for by the family and live in a separate house, which is either built under the main house or adjacent to it. For an older person, a widow/er, one of the older grandchildren sleeps with him or her to ensure his or her safety. Other social structures include church memberships where adults have their own groups from the children and the youths. These groups have specified programs as highlighted above in worship services.

The institution of marriage

In the past, arranged marriages for the young people were initiated by either parents or the mother’s brother. Nowadays, many young people choose whom they wish to marry. When parents are consulted about this, they can either give their approval or not. In my view, there are advantages and disadvantages of using either the former or latter way of such marital choosing. When young people are married in the church, as stated in Biblical teaching, the entire Lomakunauru community supports the event. The family and extended relatives prepare in advance for the event. The major preparation involves planting new gardens to be harvested just a few days before the wedding day. Everyone prepares food which must be shared. This is a time of fellowship and joy, a beginning of establishing a relationship amongst two families and their extended clans. The marriage ceremony is celebrated as in western societies. This was introduced by the western expatriate missionaries who brought Christianity teaching to the village in the early 1930s. In brief, the ceremony is officiated by one of the ordained ministers of the SDA church. This person must have the church’s officiating credentials to perform the wedding or else be deemed unacceptable. The minister recites the marriage vows and then he asks the bridegroom and bride to respond. The marriage vow, in short says, “I promise before God and the church to love and cherish you until death separates us. Both of them respond, ‘Yes, I do’. Both make a solemn commitment before God, who is the originator of marriage, and the people that they will endeavour to follow these vows. Then the minister pronounces them husband and wife and then he offers a dedication prayer for them.

Following the ceremony, the newlyweds can be taken out for a short drive in a boat or truck depending on what is available. The wedding photos are taken alongside the family members while the village women and young ladies prepare food and drinks on the dining tables. When everything is ready, prayer is offered and then the feast begins. The food and non-alcoholic drink are served to the people. Usually the couple and their invited friends eat with the rest of the community.

According to the village custom, no official wedding invitation cards are sent to invite guests because they are deemed as unnecessary. In the village, everyone is welcomed to support and celebrate the wedding ceremony. In fact, many relatives throughout Mussau also attend the wedding. Families and friends from towns also travel to the village to participate in the important celebration. Then people
give gifts to the couple, but this is done usually before food is served. A main gift given to the newlyweds is a traditional mat. Other gifts are cooking pans and clothes.

The bride price payment is not practiced in Lomakunauuru although this is still a common customary practice in other PNG cultures. The bride’s parents from Mussau, although they do not accept bride price payment, they still appreciate any forms of gifts being offered to them by a son in-law as a token of love.

Transport

The main forms of transport in the village are canoeing and outboard motors. The latter is expensive so only some families own them. Most of all is walking, a best form of mobility from place to place. Sea transport is operated to and from Kavieng is irregular and often done on an ad hoc basis. A bigger ship might be a good option to minimise risk of boat capsizing during stormy seas across open seas and nearly one hundred nautical miles. Throughout the maritime coastal areas of PNG, sea transport is a huge problem. In a recent passenger ferry tragedy that claimed more than 300 lives at sea off Finschaffnen coast, Morobe province is a classic example of transport challenges faced by ordinary citizens of PNG (World Bank, 2010).

Infrastructure changes

On my arrival in Mussau I was astonished to see major changes in infrastructure, particularly to the village roads. In 2010, staff from the Works and Supply Division in Kavieng inspected the main roads throughout Mussau Island. Then a contract was issued to the village LLG leaders to mobilise villagers to clear the main roads (excluding bush tracks). Road building in the urban centres permitted felling of trees to prevent obstruction on electricity power lines. But on the rural roads of Mussau, there are no plans as yet to install permanent electricity supply. I observed that workers cleared the bush meticulously with their knives, grass knives and shovels. Some workers even dug small ditches on the roadside to allow the water to flow away from the road during heavy rains. I suspect that unless the government seals these roads with bitumen and builds proper drainage systems, persistent heavy rain will cause further soil erosion. This will not only have a detrimental effect on the environment, but it will affect the health and safety of the people who travel regularly on the roads. As an observer at another community gathering, the local leader of the Lomakunauuru Village Planning Committee urged road workers to spend the money wisely, especially on their children’s education, rather than buy rice and sugar, which is cheaper than processed carbohydrates. Good roads would also allow people to transport their goods and tree crops such as rubber products from the inland to the coast. The people were assigned in their respective family or clan groups to clear various sections of the main roads and were paid to do this work. I will raise several concerns about the clearing of such roads. My opinion is, it is acceptable to clear the bush that grows in the middle of the road only. I noticed,
however, that workers felled every tree and cleared shrubs not only in the centre of the roads, but even those on either sides of the roads, and extending for three to four metres away from the roads.

Afterwards, passers-by had no shade to protect against a pelting hot tropical sun. One was protected with umbrellas, leaves or a traditional woven umbrella-type cover called an iila. Walking on these new roads is an issue for pregnant or nursing mothers to travel to Pakasi health centre more often than men. Many of them have no smaller canoes, which are lighter to paddle if travelling alone or with a husband, than the bigger heavier canoes. I stress that this walk is about five kilometres. But the sun’s hot temperature and high humidity does create great discomfort and even predispose health problems. Worse still, I suspect that some expecting mothers and/or young sick children will avoid going to the health centre because of the sheer heat conditions, compounded by carrying heavy weights. Travelling can be risk to health in such circumstances. Building of a new health post in Lomakunauru is critical to safeguard this vulnerable population. Thus, users of the health services will have accessible basic care, instead of wasting their energy and time to seek basic health care elsewhere.

**Personal safety**

Although I was a researcher, I was expected to respect the traditional and cultural norms of people. These practices include attending events like weddings, church services, meetings and funerals rituals. This took time away from study, but it was important to show my respect.

**My observation in Lomakunauru**

What did I learn from conducting the study in the village between November, 2009 and July, 2010? I learned a number of things during those months in the field. As an insider researcher, I realised that there are many things done in the village that I took for granted. But it is important to examine how those things contribute to good health or ill health of women. For example, daily chores of women tend to wear women physically, mentally, emotionally and spiritually. Gender inequality is obvious in the village. Women appear to be powerless to rise above patriarchal oppression. My opinion is that education may alert them to their basic rights in health, education and other matters in life, and help them to unite and fight for their rights. I believe that education for girls / young women is critical. If they are better educated, they may make better choices regarding their sexuality, reproduction and life in general. Knowledge is power!

**Conclusion**

The chapter was presented in two sections. The first showed challenges and constraints which I encountered as I made preparations for and finally entered Lomakunauru village, a rural research setting in PNG. There were critical preparations which I embarked upon to gain entry to and conduct
the study. As a local Papua New Guinean, none of the major safety concerns posited affected my field research.

The second section highlighted various issues of ordinary people and their activities at Lomakunauru. Amongst these are practices and social behaviours which are complex as observed in this chapter. In spite of being a matrilineal society, men continue to hold power and gender inequality being displayed. The health services in Lomakunauru are very basic. Women are obliged to perform so many chores to meet family needs, often leading to exhaustion and illness. Wife beating is practiced today by some men and yet the community leaders have not drastically addressed this issue by providing safe shelters or counseling for battered women. Education for women and girls is vital to empower them. In so doing, this group can rise above the suppression they experience and fight for their human rights. It is essential to understand how such processes in Lomakunauru affect maternal health of childbearing women in this setting. The next chapter shows Phase Two, one to one interviews with village women.
Chapter Eight: Phase Two Study in Lomakunauru Village - One to one interviews
Introduction

Phase Two of this PAR study took place in Lomakunauru, NIP, PNG. I was in the field for six months from December 2009 to July 2010. I originally planned to be in the village for nine months, but numerous delays and obstructions prevented an earlier start. Reasons for delays were discussed in the previous chapter.

As mentioned earlier, my study was guided by the approach to PAR as elucidated by Koch and Kralik (2006). For the purposes of this study I commence with one-to-one storytelling, and then participants were invited to work collaboratively as a group. My adoption of Koch and Kralik’s method and emphasis on the importance of storytelling allowed me to invite participants to talk about their pregnancy and birthing experiences. I was interested in storytelling as it is valued culturally in these local contexts. There were two stages of data generation, storytelling (one-to-one interview) and PAR group discussions. I will begin with the storytelling, and in the chapter to follow I will reveal what happened in the PAR groups facilitated in the village.

As mentioned, it was important to adhere to the study’s objectives with Lomakunauru women. I asked ten individual women to talk about their pregnancy and birthing stories separately. In the effort to honour their voices, I will present each woman’s entire transcribed, translated and validated short story. Alongside these interviews, I recorded my reflections about the research process, observations and insights as they evolved over time. While in the village, I observed local contexts and these accounts are described in this chapter.

Context

As discussed in Chapter Two, Lomakunauru has five hamlets. Census population data for the village are not available, but it is estimated that approximately 400 people are spread over five hamlets. From Lomakunauru Palakau health centre is reached by walking or paddling in dugout canoes. On average, it takes about one and a half hours but the length of travel time is determined by the traveller. If a woman is pregnant or is accompanied by small children, or a person is older or ill, it takes much longer to reach Pakasi. Another comment that needs to be made is about living in a small community and the implications this has for health service delivery and personal privacy of women. In Lomakunauru, there is nearly always someone who is a relative, so it is a challenge to safeguard women’s privacy although kinship is strong. In particular, this tends to shape the relationship, for instance, between the Pakasi health centre staff and the women who give birth at this facility. Indeed, some of the women interviewed were distant relatives.
Preparation

I will briefly repeat information on some of the preparations made prior to entering the field. First, ethical approval was granted by the HREC, UON, Australia, and PAU, PNG. In addition, permission was sought and granted by the NIP Administrator, and the Lomakunauru village planning committee and the church committee.

The second aim of preparation was to organise equipment and electricity as mentioned in the previous chapter.

The third aspect of preparation was to review my learning from Phase One. Four Newcastle/PNG women had suggested potential success and constraints indicators I might like to consider when researching in my village. If Lomakunauru women wanted change, would their men allow maternal health reforms suggested by them?

Minimal infrastructure was identified as a major constraint for service delivery and promotion of maternal health. For instance, we heard about Mary’s long walk in the effort to seek skilled birth attention for birth of her first baby, and that she was forced to give birth in the bush, without support, and having to cut her own umbilical cord. After hearing about Mary’s experience of traditional birthing practices, it was my intention to pay particular attention to local cultural contexts.

Lack of modern technology for communication, including emails and internet, was considered to be another constraint. This meant that continuing with the blog page initiated by PNG/Newcastle women would be compromised. Moreover, I wanted to further develop and maintain networks for sharing this study’s findings. I wanted to stay informed about the fifth MDG and what was happening in global internet networks. We talked about ways to reach village women with user-friendly education packages on maternal health promotion. Of course the research agenda would be driven and action initiated by the village women themselves.

Newcastle/PNG women had advised me to consider illiteracy among village women. These participants affirmed that storytelling was culturally appropriate because literacy levels were expected to be low. I was confident that storytelling with village women would engage them but I was not sure how I would attract women to the larger PAR group. I have noted that I was an insider researcher who was familiar with the context and languages spoken, and believed this placed me in an ideal situation to talk with women about pregnancy and birthing. In the section to follow I will describe the recruitment process and, where appropriate, share my observations and reflections about this process.
Recruitment of village women

The recruitment process has been discussed in Chapter Five. So I will briefly explain how participants were recruited for one-to-one interviews in Lomakunauru and the challenges I faced. The actual recruitment took nearly three weeks before some women indicated their interest to be interviewed. A number of factors contributed to this delay: the festive holiday season so most women attended to their visiting family members and friends who were home. The women knew me as a registered nurse and midwife and assumed that I was attending to the sick. They approached me about health matters. I managed to keep my role as researcher separate, but this was not always possible. Two close relatives died which meant that traditional funeral and mourning rituals were observed. I paid respect to these, although it hindered my study’s progress.

Finally, some women indicated an interest to participate in the study. Some were village elders, who wanted to share their storytelling but I also wanted some younger women to participate too. This did not eventuate, due to my time restriction in the field. But they attended the PAR group meetings several months later.

I interviewed ten women, some on several occasions. The average age of the women was 58. Four women were over the age of 50. The stories of the older women about their childbearing experiences from the past decades were still relevant. I also recognised that these women were well respected in the community, and as village elders they would have some ‘authoritative’ say in the reforms that might result through their participation. Listening to them would enable me to become more acquainted with the cultural birthing practices and allow me to understand more about safe and harmful practices.

Before we began our initial one-to-one interview commenced, I explained the information letter. I followed these ethical steps very cautiously and sensitively. I wanted women to participate through their own decision rather than do so because they felt obliged to do so. If they really wanted to talk about their birthing experience and to consider promoting maternal health in the village, then this was considered acceptable. I had grown up in this village and knew most of the women. They asked for clarification about the information letter and the consent. Older women signed their own names. Ten women agreed to participate in both one-to-one interviews and in the PAR group meetings. They selected a fictional name which, I explained, would conceal one’s identity in subsequent publications.

Venue

The venue for the interview was selected by the interviewee. Seven women initially chose to be interviewed at their homes. This was more convenient than walking a long distance to the community house or to my field residence in one of the hamlets.
Two interviews were conducted in my home and just one at the village community house. Subsequent interviews took place in convenient sites including the community house and the local church grounds.

**Reflection**

On reflection, I learned to be organised. I had a checklist of all the items which I packed inside a bag prior to leaving my house to go to the interview venue. I did my best to be punctual by always arriving on time for the interviews at the designated time. I had a field journal in which I had to enter my reflections before and after each interview. Although this was required, many times I could not leave the home of the interviewee immediately post interview until I had refreshment with my participant. This was a challenge to the recording of my reflections. My reflections will be incorporated into this chapter.

**Recording**

Explaining the technology associated with the interviewing process took some time. To begin, I showed each woman two digital voice recorders I wanted to use for recording the interview. Then I pressed the recording button to show how this worked. I explained that this captured all the details of our dialogue. The reason I used two recorders was to ensure that if one recorder failed to record the interview, the other one would. I did not want to miss any words or forget important aspects of their stories. I explained that afterwards I would listen to the story and transcribe every word ‘verbatim’, initially in their own language and then in English. The two tiny hand-held digital voice recorders fascinated them as they had never seen these types of recording devices before. All of the interviewees agreed to be recorded.

They exclaimed how these tiny digital recorders could record our dialogue for a few hours. Sometimes, I briefly played the recorded interview to each interviewee, who marvelled at the sound of her own voice. They talked passionately about their pregnancies and birthing experience. I invited each interviewee to tell me about one of their pregnancy and birthing experiences. Although most women had had more than one child, I asked these to share just one pregnancy experience because of constraints on my timeline to complete this study towards my PhD degree. Meanwhile, each woman articulated the main reason for sharing a particular experience she had chosen to share with me.

Each one shared the story either in the Tok Ples or Tok Pisin language. She was encouraged to share the story the way she remembered and wanted to tell it. I listened closely to her. Although I allowed her to tell the story as it had unfolded, sometimes I had to interrupt her conversation to seek clarification of some of the aspects of the story which were unclear. Prompt questions were asked in
relation to certain parts of the story, such as, ‘Tell me more about …’, ‘How did you feel about that?’, ‘What was important to you?’

I used open-ended questions with interviewees to inspire greater detail in the story. Further, these reflected upon the issues which affected her during the time of pregnancy and birthing.

When an interviewee had told her story, I graciously thanked her. I reaffirmed confidentiality. Then the recorders were turned off and we had a meal together. This is accepted cultural practice. In most cases, the women always prepared some food for us to eat together. I always brought some food with me to share too. The duration of the one to one interviews took about one hour to one and a half hours per interviewee. The process of storytelling enabled participants to reflect on aspects of their maternal health and ways they could improve their situation in the broader village context. Before we parted, I promised every interviewee that I would transcribe the story and return a storyline to her as soon as possible.

Some women can speak Tok Pisin although most told their stories in the Mussau language. Tok Ples refers to any language/s that the people in a local community use to communicate with each other (Martin, 2012). Women who spoke Tok Pisin quite fluently were Uraura, Violet and Christina. Most of the women wanted me to transcribe their stories from the Tok Ples Mussau language to Tok Pisin, or ‘Pidgin English’. When asked why the latter was preferred, the response was ‘Tok Pisin is easier to read than the Mussau language.’ I performed the process of transcription verbatim, which involved listening to the recorded interviews and typing the exact words using the word processor on the laptop computer. One advantage of being an insider researcher who is familiar with the languages was that writing in ‘Tok Pisin’ was easy for me. I did not need an interpreter. This would be different if I conducted the study in another rural village in PNG. An interpreter was essential because there are 850 indigenous PNG languages.

One of the principles I adopted for this PAR process was the communication of storylines in accessible language. Making the writing accessible meant using everyday language and writing the story in a way that was immediately understood by the woman so she could take ownership of it. The language the women selected for the written story was Tok Pisin. Listening carefully was necessary not only to become familiar with the stories but also to capture the women’s tone and use words that were close to her expression. When writing in the women’s own voice I attempted to use words that were easily understood. After I had finished translating all the ‘Tok Pisin’ versions, the same stories were translated to English. This was necessary in order for my PhD supervisors and other non-PNG citizens to understand the stories of the women. When translating these storylines into English, my task was to avoid medical terminology and instead select words that described the woman’s experience authentically. The English language storyline (collaborative version) will be given in later sections of this chapter.
Transcribing the original interview took about ten to twelve hours on average. Further delay was caused by lack of electricity caused by the inefficient solar panel and technical problems with the generator.

Analysis

As described in Chapter Six, analysis of each woman’s story using the look, think and act interpretive framework by Koch and Kralik (2006) was followed systematically and guided by the traffic light system. I will summarise the analysis here. As women were talking I heard about one pregnancy and birthing experience. For some women, this event happened many years ago so it was a recalled experience. A story told retrospectively is identified as ‘looking’. That is, this information was shared about a specific event. Individual woman were sharing information with me in this ‘looking’ phase, and the information was coded in red. Occasionally women were reflective, talking about things they had experienced, which in retrospect they now understood but claimed they did not at that time. The actual act of narrating her story encouraged further reflection about the event of these memories, and these reflections were coded in orange. Thinking was stimulated as the woman was asked to ponder about ways maternal health could be improved. When the woman had thought about her own situation and compared it with other village women who are yet to conceive and give birth to a child, she was often prompted to forward suggestions for change. These were recorded and coded in green.

One of the PAR principles I have chosen is to focus on the strengths that each person brings to the story. As discussed also in Chapter Six, this research process relies on capacity building and therefore focuses on the woman’s strengths as interpreted by me as I listened and analysed her story. Women clearly revealed a number of inner strengths, which I identified in their individual stories. While researching alongside women, I was keen to develop their capacity, and one way of doing this was to draw attention to their inner strengths as they were revealed in storytelling. These were coded in blue.

I then clustered text into paragraphs, which were headed by a significant statement and which grouped together similar meanings, topics, subjects or emotions. In so doing, I paid attention to the chronology of events and the storyteller’s strengths, and developed a storyline.

Validating each story collaboratively

Another PAR principle that I have taken on board is its collaborative approach that involves women in the research process: we undertake the storytelling collaboratively. I transcribed the interview in the preferred language as described above, and returned the storyline to each participant. An interviewee either read her story by herself or she asked me to read it for her. I asked the participant specifically to check her story for accuracy, and invited her to give feedback on the story and her thoughts about the strengths I had identified. I also asked her to clarify any aspects of her story that were unclear. I recorded her words as she provided this feedback so I could transcribe her words and
make amendments to the story. If I had made mistakes, or the storyline was incorrect, she informed me straight away. I reassured her that I would make changes as requested. I then proceeded with the second interview, which was also recorded. Upon returning to my residence, I retyped the story (transcribed verbatim), translated her words from Tok Ples into Tok Pisin, and integrated the changes.

On the next appointed occasion, this new version of the storyline was shown to the woman. Again, if an interviewee made a comment or corrected an error in the story, she informed me about this. I made the change(s) in the story and returned an edited version. This collaborative process was repeated until the woman had told her story. In other words, the second and third storyline versions were evaluated by the interviewees. If she was satisfied with her story, we concluded the one-to-one interviews. The same process was applied to all one-to-one interviews. This collaborative validation process was one way to achieve rigour in this study.

In the feedback session with each woman I gave her the storyline and asked whether she wanted to read it out loud. The majority of interviewees were older women and they requested that I read it to them. They listened closely. The reading was done in private so other family members could not hear. In their feedback to me, they were impressed with their own story and our ‘accurate’ version of it. In their response they were amazed that I had identified their strengths, which, I believe, had been previously unacknowledged. One thing obvious thing to me is that when I mentioned her strengths, each woman said that she never knew she possessed the kinds of strengths I had highlighted. They had not thought of themselves as being strong in these birthing situations. They thanked me for giving them a voice and an opportunity to share an important life experience.

**Participants had not told this story to anyone before**

As stated, I observed that every woman appeared confident and at ease when they talked with me. None of them looked shy or embarrassed, except for a few who cried when they related a sad aspect of their story. This was the first time they had had a chance to share their pregnancy experience, and they were thrilled to share it truthfully and without reservations. In fact, during the interviews, I warned that there may be some memories that bring back unhappiness. Despite a tear now and then, the women told their stories after she had recollected herself and felt ready to go on. The women said to me that nothing embarrassed them and that they wanted their stories to help future generations.

**Writing stories with women**

The ten village women who volunteered to be participants and their self-selected fictional names are Donnelly, Uraura, Rosaleen, Christina, Wendy, Betty, Violet, Enderlyn, Maryanne and Lindy. Women covered all age groups but four women were over fifty years old. The stories of pregnancy and birthing told, therefore, happened many years ago for some of the women. It should be noted that
few things have improved in terms of infrastructure or material and human health service delivery. In fact, some maternal services were less satisfactory for most of these women as you will read in Wendy’s story. In methodological terms, when the birthing event happened does not matter. What is important in the PAR process is that storytelling fosters building relationships with the women. Once these relationships are built, it is more likely that women will attend the PAR groups. Besides, elders are respected in the village and it was important to involve them so that resultant actions from the PAR group would be sanctioned.

Table 8.1 below shows women’s demographical information and the number of their pregnancy they shared with me. The reason for telling the story is also shown. Then each woman’s story is listed, followed by the main common issues.

**Table 8.1: Participants’ details**

<table>
<thead>
<tr>
<th>Women</th>
<th>Age</th>
<th>Status</th>
<th>Number of children</th>
<th>Story selected</th>
<th>Reason for selection this experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donnely</td>
<td>39</td>
<td>Married</td>
<td>Four boys</td>
<td>Fourth</td>
<td>Had so much pain than in previous three pregnancies</td>
</tr>
<tr>
<td>Uraura</td>
<td>80</td>
<td>Married</td>
<td>Seven (7) children 5 girls and 2 boys</td>
<td>Seventh</td>
<td>She is thankful that God had answered. Her prayer and gave her a son.</td>
</tr>
<tr>
<td>Rosaleen</td>
<td>33</td>
<td>Separated</td>
<td>One (1) child 1 girl</td>
<td>First</td>
<td>Did not know about pregnancy and child birthing processes</td>
</tr>
<tr>
<td>Christina</td>
<td>71</td>
<td>Married</td>
<td>Six (6) children 3 girls and 1 boy</td>
<td>First</td>
<td>Twins died</td>
</tr>
<tr>
<td>Wendy</td>
<td>49</td>
<td>Married</td>
<td>Six (6) children 2 girls and 4 boys</td>
<td>Sixth</td>
<td>She thought she was going to die. Humiliating experience</td>
</tr>
<tr>
<td>Betty</td>
<td>37</td>
<td>Married</td>
<td>Four (4) Children 2 girls and 2 boys</td>
<td>Fourth</td>
<td>PHC then transferred her to Kavieng</td>
</tr>
<tr>
<td>Violet</td>
<td>80</td>
<td>Married</td>
<td>Eight (8) children</td>
<td>First</td>
<td>First born was a stillbirth</td>
</tr>
<tr>
<td>Enderlyn</td>
<td>55</td>
<td>Separated</td>
<td>Three (3) children 2 girls and 1 boy</td>
<td>First</td>
<td>Unwanted baby as a result of teenage pregnancy</td>
</tr>
<tr>
<td>Maryanne</td>
<td>54</td>
<td>Single</td>
<td>One (1) child One boy</td>
<td>First</td>
<td>Conceived out-of-wedlock - teenage pregnancy</td>
</tr>
<tr>
<td>Lindy</td>
<td>79</td>
<td>Widow</td>
<td>Twelve (12) children 5 girls and 7 boys</td>
<td>Tenth</td>
<td>Child was small for date</td>
</tr>
</tbody>
</table>

*Pseudonyms used were often selected by participants themselves  
+ Average age 58

**Donnelly’s story**

Donnelly is 39 years old. Together with her husband James, she has four sons. She chose to share her fourth pregnancy experience because she had such excruciating pain during labour and birth. Such pain was worse than the labour pain which she had experienced in her three previous birthing experiences. She wondered whether something was wrong with her reproductive system.

*When I was six months pregnant, I attended antenatal clinic at the health centre on Mussau Island. I received help at the antenatal clinic, health centre. Iron tablets were given to me. I drank these until
the ninth month of pregnancy. During this pregnancy, I had some problems and I was a sick mother. I have asthma and I think that this made things much worse for me during my fourth pregnancy. But I took asthmatic medication to ease the condition. Twice during this pregnancy, I had asthma attacks but by the eight month I was better. Then I gave birth at term.

The labour contractions commenced at six o’clock in the evening, followed by a slight bleeding so we (my sister and I) went to the health centre. The labour pain, however, were weak, short and irregular. By four the next morning, I waited anxiously for regular strong contractions to enable me to give birth. But nothing happened. One of the staff instructed me to go into the labour ward so I went in. The staff followed hospital procedure and examined me and broke my baby water. For a long while I did my best to push the baby out but my efforts failed. The baby was not born. Then dawn came. I stayed in bed in the labour ward for about nine hours. My baby was ready to come but the contractions were still irregular and short. I was concerned that I may not give birth.

The staff thought the delay to give birth was caused by a full bladder obstructing the baby’s head. Therefore, they tried to remove the urine four times. This caused paka-ma-marikana ilii which means, such care inflicted severe pain in me. It seemed as though, they poked my private area with a sharp instrument. I was not shown the type of instrument they used to remove my urine with.

I was overly worried and thought this must be the end of my life. I had not felt this type of pain during my three previous pregnancies and labour. Apparently, my labour pains were weak and irregular. These pains were also shorter in duration so I could not push my baby out. I cried to God and said ‘You have never failed me in the past. Please help me now. Give me the strength to push my baby as he is ready to be born’.

Although I did my best to push my baby out, my efforts failed. I said to my younger sister, sorry, I just cannot push. I do not have any strength to do so. She encouraged me to keep trying. I repeated that I could not. But my sister’s presence standing beside the labour bed, gave me the courage to push. I pushed. A health worker did his best to assist me to give birth to my baby. There were two other staff with him.

The staff did not cooperate with each other. I thought that they were jealous of each other’s knowledge and skills. Before I was admitted, one of the babies had died. I heard from the nurse that she and the boss did not cooperate or collaborate as a team. The boss locked drugs in a cupboard so two other staff did not have access to these whenever they needed drugs to treat patients. They sought permission from the boss prior to taking drugs. The nurse also mentioned that when a conflict had to be resolved, the boss refused to settle the matter. That is how they failed to work together. For this reason, when I requested alternative care during labour from two other staff, this is what they said:
‘sorry we cannot help because we can only follow instructions that the boss gives. That made me worried because the staff did not work together as they should’.

The pain I experienced was worse and my private area sustained lacerations. The senior staff forced one of her hands deep inside my genital to enlarge it. She did that purposefully to pull the baby out. I suffered a lot from the pain. The senior staff said to me, push now! The baby is ready to emerge. I pushed very hard. Some parts of my genital tract were torn, painful and swollen. It felt like a huge wound inside me. The type of care they gave me is poor. I asked them. Can something else be done to get the baby out? I wondered if something else could be used. But they said, we cannot use a machine to pull the baby out because it might cause an injury to his head. Although I was still weak and was lying upright in bed, the staff instructed me to push the baby out. My waters had been broken since 3-4 o’clock in the morning but I struggled for a long time until daylight. Then I said to them, I cannot give birth.

The staff, however, continued to force me to push. Another staff said to the former staff, I will administer an oxytocin drip to strengthen the labour pain. Then as the drip started to flow, immediately my labour pain became stronger and closer together. I pushed and then I gave birth. I think this important aspect of care should have been done for me earlier to prevent unnecessary pushing while the labour pain was weak.

After birth, the staff did not inform me about what had actually happened to me when they finished working on me. Perhaps it is forbidden for them to say something to a woman. They just gave me some amoxicillin tablets which I drank.

My newborn baby son was born alive and I thanked God for saving him. Then I fainted. I am not sure if there was something wrong with me or my husband. My husband is a good man but he is involved in drugs. He does not realise that bad things that affect his life and health can impact, either on the children or me.

After birth, I slept until I felt much better. Three days later, I was discharged. My abdomen had severe cramps at home, so a relative gave me some amoxicillin tablets to take. This healed my wounds. The staff sometimes acted unprofessionally. They failed to assist me when I was in trouble. The health centre building where I gave birth was deteriorated and the walls are broken. There is only one bed for examination and the labour ward bed is an old one which was used in the former health centre.

I prefer female nurses to assist me during labour but when no one is working, male staff assists me instead. I am embarrassed when attended to by male staff but I want proper care to enable me to give birth safely.
Donnelly’s short story

I will give Donnelly’s story as an example of the way in which the storyline was developed, using clustering and significant statements. The first sentence of each paragraph shows the most significant statement, and the contents of the paragraph provide evidence or support the woman’s statement. This demonstrates the clustering of language as described earlier. Significant statements relate to the main concerns identified by Donnelly.

When I was six months pregnant, I attended antenatal clinic at the health centre on Mussau Island. The labour contractions commenced at six o’clock in the evening, followed by a slight bleeding so we (my sister and I) went to the health centre. The staff thought delay was caused by a full bladder which was obstructing the baby’s head. I was overly worried and thought this must be the end of my life. Although I did my best to push my baby out, my efforts failed. The staff did not cooperate with each other because I thought that they were jealous of each other’s knowledge and skills. The pain I experienced was worse and my genital sustained lacerations. A staff, however, continued to force me to push. The staff did not inform me about what had actually happened to me when they finished working on me. My newborn baby son was born alive. I thanked God for saving him. After birth, I slept until I felt much better. The building in which I gave birth is falling down, and the staff at the health centre sometimes acted unprofessionally. I prefer female nurses to assist me during labour but when no one is working, male staff assists me instead. I am embarrassed when attended to by male staff but I want proper care to enable me to give birth safely.

Negligent care

Donnelly talked about birthing and claimed that she was not satisfied with the service she received. In fact, she thought the care was negligent. She believed that the staff failed to assist her to have a natural birth, which had been her expectation. Previously she had had three birthing experiences, so she understood that her labour pains were irregular and weak (uterine inertia). And she knew that it was impossible to push her baby through the birth canal when the contractions are weak. She begged for an alternative method to help deliver the baby when she realised that pushing could not expel the baby.

Staff not well prepared for birthing

It seemed that staff were not well prepared for assisting with birthing. My assessment retrospectively is that cervical dilatation was incomplete yet she had been asked to push prematurely. The second stage of labour refers to a full cervical dilatation at ten centimetres. Only then could she be encouraged to ‘push’ and give birth. Staff, I suspect, correctly, assumed that an over-distended bladder was blocking the descending baby. But to catherise her repeatedly over four times is cruel
and unthinkable. Further, the risk of infection is greater from this procedure. But most importantly, she was in excruciating pain caused by aggressive manipulation of her genitalia in an attempt to aid the baby’s birth.

**Donnelley’s voice is ignored**

Donnelly’s wellbeing was not a prime concern to staff and her voice was not heard. Donnelley was desperate to have an effective, faster but safe medical intervention to facilitate the birth of her baby, but when she asked for additional drug support the birthing attendants denied this right. I can only assume that they were not well prepared for assisting with birthing or of insensitive to a birthing woman’s needs. The birthing attendants resisted administering the oxytocin drug available to assist in this situation, until the pain was so extreme. By then she was utterly exhausted and on the verge of dying. She requested that they use a machine (possibly meant a vacuum extraction) to lift her baby out. Again her attendants refused that, claiming that foetal head injury might result. Unfortunately, these claims appeared to be excuses rather than good midwifery practice. When at last the oxytocin was commenced, it immediately augmented and regulated the labour contractions. Finally, she gave birth. In my opinion, an intravenous oxytocin infusion should have been administered earlier when staff noted that she was not making labour progress. The following three reasons justified a need to act earlier. Firstly, the labour pains were weak and irregular. Secondly, the membranes had ruptured for some hours and she needed to give birth to prevent the risk of ascending genital tract infection to herself and the unborn baby, because serious complications like neonatal sepsis and puerperal sepsis can be fatal (Berer, 2007; Thomson, 2005). Thirdly, the intravenous fluid contains essentials elements like dextrose that should have boosted her energy level and hence enabled her to ‘pant’ her baby out.

**Communication between staff**

Good channels of communication between staff were lacking. My opinion is that good communication between staff and the birthing woman is crucial for a smooth and efficient birth of a child. For instance, the senior staff should have communicated and cooperated with the junior officers to provide appropriate care to Donnelly earlier during her labour. I asked Donnelly what she meant by the phrase, the ‘staff are jealous of each other’s knowledge and skills’. She explained that the senior staff did not want to listen to suggestions that the subordinates suggested concerning her care. Perhaps as a manager of the facility, and having a higher level of qualification, this officer was reluctant to admit her lack of midwifery skills and a need to collaborate with other staff in order to care for Donnelly to address her difficult labour and birthing problem. The subordinates have had many years of clinical experience in assisting women who had difficult labour in rural areas. Hence, they were quite confident in managing Donnelly’s difficult labour. But they chose to remain passive. Having a
male nurse to assist with the birth bothered Donnelly; she would have preferred gender-specific service. Donnelly was powerless among these authoritarian and domineering staff, who were not civil to her or each other.

**The importance of having a family member close by**

Having a family member present during the labour was most fortunate for Donnelly; her sister’s presence during birth was beneficial. Her sister’s unrelenting encouragement motivated Donnelley to push even though she had given up hope. Donnelly really valued having family support during labour and birthing. Every woman in labour should have a known person to support her. The family member can be trusted and dependent upon to offer holistic during labour.

**Husbands are bystanders**

In this village, husbands can only assist if the wife does not have female helpers. Husbands usually bring their wives to the health centre (unless they are not home) to give birth. But they refrain from witnessing the birthing process, because it is regarded as women’s business, a socially accepted norm in our society. Therefore, the majority of husbands in the Murat region do not witness the actual birth or provide support, even though they might be nearby.

**Health care setting: a dilapidated building**

Donnelly was vocal about the dilapidated building of the health centre. Besides, this building is also analysed in terms of its space and privacy. She pointed out that the labour ward was adjacent to the main door of the building, and privacy could not be guaranteed. The health centre fails to provide privacy to women from the general public and inpatients, who can readily hear what goes on behind the closed door. When the door is opened wide, passers-by can gaze into the labour room and see a woman giving birth or being examined.

When this building was erected by men, they did not consider the privacy of birthing women. Further, the shower and toilet rooms are located at the rear side of the same building. Access to these facilities means women in labour have to either walk through the main ward where the sick male and female adults and children as well as their guardians stay. Or they exit the building, walk along the foot path, then re-enter the building from the rear. These facilities are seldom used because there is no running water for showers, toilets, cooking and doing laundry. Although a new medium-size tank has been installed recently, this is insufficient to cater for the needs of all the patients, including women and their guardians.

As a result, everyone is expected to walk a short distance to the beach for toilet and bathing purposes. Unfortunately, there is no proper toilet at the beach to use. Instead the people pass sewage into the
water or in the bush. Besides, there are crocodiles that are breeding in the nearby river, and a few have been sighted along the beach, a potential risk to the lives of women and other patients. It was also observed that there are no pit toilets at the health centre for patients to use. This is badly needed and should be built to ensure healthy practices of human waste disposal are maintained.

Most importantly, postnatal women in particular, need privacy to have adequate rest following a hectic labour and birthing process, and to change undergarments which are soiled from frequent bleeding. But this cannot be managed unless there is a separate postnatal room for them. Further, they should be isolated from other sick persons, whose infections can easily pass onto the newborn babies, whose immune systems are fragile. Often, such issues shape women’s decisions to avoid giving birth at the health centre. While I was conducting my study, two of the women in labour, who had travelled long hours to the same health centre, gave birth in the nearby bushes unassisted by the health staff on two separate occasions. The staff went away and could not assist them. Personally, I think the labour room and the post natal rooms should have been built separately, away from the main health centre general wards to ensure privacy for birthing women.

**Spiritual support**

Spiritual support was very important to Donnelley. She prayed to God. In the sections to follow we will hear more about the role religion plays in pregnancy and birthing in this village.

**Uraura’s story**

Uraura is a widow who is about eighty years old. Like many villagers, she belongs to the SDA church. Her level of education is grade three, and she is semi-literate. All but one of her seven children are alive today. Uraura shared her seventh pregnancy experience because she believes that God answered her prayer when she was desperate to have another son after having five daughters.

Although Uraura’s birthing experience was uneventful in terms of health care delivery, the cultural and social context she paints is rich. She is one of the many elders who is post-menopausal but willingly shared her experiences of pregnancy. These older women are respected elders and I needed them on my side if I wanted anything done in the village. In this village the social order tends to be less patriarchal than in other PNG village, and at least some of the men in our village tolerate women’s voices. Uraura talks about her experience like this:

*I was married in 1953 at Lomakunauru and straight away my husband and I left as missionaries to other parts of PNG. I had given birth to five daughters and just one son. So I wanted to have another son. The main reason I wanted this son is that my older son would have someone to help him, as it were; to carry the heavy loads such as a huge pandanus stump whilst making new gardens at home.*
The nurses advised me to stop having more children but I did not want to listen to them. I said, I want to have another son and then I will stop. Then I requested the nurses’ to give me advice about family planning so they did. Soon I became pregnant and gave birth to another girl. I was unhappy with her and wanted to give her away to someone else. But her father stopped me so we kept her.

I was healthy when I became pregnant while we lived and worked on Wokio Island, East Sepik Province (ESP). We stayed by ourselves in an isolated area because my husband frequently travelled to visit church members. The church member’s couples, however, kept us company. These stayed with us for two weeks and then another couple visited us. Wokio might be a volcanic island because it was hot. We washed in the sea and sometimes in the hot streams. The church supplied us with 44 gallon drums but the water collected in the drums were only used for laundry and cooking.

The Aid post at Wokio was further away from where we lived. The nurses from Wewak travelled to Wokio Island to conduct health clinics. They gave me tablets to increase my blood in order to make my baby grow strong and healthy. No malaria tablets were given to me. I attended the clinic three times. During their visit, nurses instructed me to go and live in Wewak to await my labour. These warned me that if I remained at Wokio I will not have transport to go to the hospital in Wewak. Further, they warned; if you give birth at home, no one will assist you. I took a trip with them on a government trawler (ship) back to Wewak. I stayed at Kirere, a settlement in Wewak town for two months.

When my labour pains commenced, I walked to the Boram hospital, Wewak, ESP by myself. The distant to the hospital was approximately half an hour only. Other people as well as cars travelled on the road. When it was nearly time for me to give birth, the PNG nurses helped me because there was no expatriate staff at the time. These brought me to the labour ward. A bed was offered which had a back rest to support me. I lied on it while the nurses massaged my back. I did not sit down, stand upright or squat. I pushed my baby out. The normal birth occurred during the PNG Independence Day, 16th September, 1975. I was delighted and said I will stop having babies. The nurses suggested that I have tubal ligation. I agreed and consented to undergo surgery. While at the hospital, none of my family members supported me because I lived far away from my own home.

After giving birth, I was taken to the postnatal ward. But my baby was taken to the special care nursery. He was kept there so nurses could feed him and stop him from crying while I had a tubal ligation. I was kept in the postnatal ward by myself for two days. One of the ladies asked me; where is your baby? I responded that they took him to another room. She advised me to tell the nurses to return my baby to me; and added; otherwise the nurses might swap your baby with a different baby and give him to you. In Boram hospital, this had happened previously. That is how my baby was returned to me. When the nurses saw my baby, they assumed that he had Tolai (people from the
Gazelle area of East New Britain) parentage. I responded that when I gave birth to him, the nurse had tied a name tag on his wrist having my name written on it. I knew that he was my own baby.

The public was restricted to visit mothers and babies in the postnatal ward. After the operation, I was in bed, supported with pillows while I breastfed my baby. This continued for a while until I was able to sit up straight. My nephew came and stood outside the postnatal ward window and called out to me. He inquired, ‘mama, what do you want to eat? Should I go and buy you some fruits like a cucumber or ripe banana? He helped me’.

Many women gave birth at Boram hospital and were confined in one room. The nurses examined us and discharged those that had false labour. Only those women who had established or true labour pains proceeded to the labour room.

I was not afraid even though my husband was at Wokio and I was in Wewak. I wanted to get help from the medical staff so they could save me. He was with our eldest daughter. Then they travelled to Wewak because he was very sick. He vomited a lot and his eyes were very yellow. Although he wanted to see me, he could not because I was still hospitalised. The hospital is near the beach so he waved to me. I called for him but when he came closer, I realised that he looked sick. I felt so sorry for him.

I thought to myself, if I have an operation tomorrow and if my husband dies, I will not grieve for him. I was terrified. I thought of telling the nurse to cancel the operation because of my husband’s ill health. But I decided to undergo the operation as one of the nurses had warned me that I would die if I have another baby! This message frightened me so I had tubal ligation, a permanent family completion.

After I was discharged, we (my husband, myself and our small baby) lived at Kirere for a week and then we boarded a small ship to return to Wokio Island. But as soon as we left Moem Point, Wewak, the ship engine stopped running and we drifted at sea for one day. Then the wind blew the ship ashore at the army barracks in Wusu, Wewak. We had no food because we had planned to reach Wokio quickly and then cook banana to eat.

Later in the same afternoon, the strong wind and current tossed the ship towards Moem, on the mainland. When we went ashore, some students from Nagam School joined us. They cut down some trees to move the grounded boat back into the deep water. We waded ashore as there was no small canoe to use. One of my older daughters, also a student carried the baby while my husband held another daughter. This boat was abandoned at Moem.

We waited for the truck to take us back to Wewak town. Some locals came and collected their relatives who were with us by identifying the names of their father’s or uncle’s etcetera. We lingered because we had no relatives in the area. A lady from Madang who was married to a man from Wokio
saw us and asked us about one of her female friend living on Wokio. Someone said that she had gone
to the market in Wewak and had not returned yet. Her grown up kids were around though so she
called for them. Eventually one of them came and took us to her mother’s house.

Someone in the house announced that there was sago (a staple food) but no protein like fish to eat it
with. We slept at night in their house but there were no proper sleeping mats to use. In the morning,
one of the men planned to take us to Wewak by truck. Prior to that, he sent one of his sons to go
fishing while two ladies went to the garden to harvest sweet potatoes. He went to look for a truck.
Soon the ladies arrived and cooked the food for us. The truck was ready so we left for Wewak. Upon
arrival, we slept inside the house. We remained until midweek and then we travelled to Wokio by a
canoe. This had an outboard motor and the trip took about half an hour.

Back home, I ate good food, did light chores and had sufficient rest. I did not need any medications.
The operation site healed quickly. We lived in the same manner as in Mussau. We baked cassava and
taro and boiled other types of food. Often, my two older daughters went fishing. We had adequate
food to eat except water supply was scarce so we drank coconut juice every time but discarded the
flesh of the nuts. My baby learned to drink this juice when he was very small and we relish our ripe
juicy mangoes.

When I was pregnant I ate good food. Some pregnant women do not like to work during pregnancy.
That was not the case for me. I still worked in the gardens where I built garden fence to stop pigs
from destroying crops apart from doing home chores. My husband was usually away so I had to do
some chores by myself. Yet, I was healthy until I gave birth to all my babies in the hospital.

Prayed to God

Even though Uura and already had six children, Uura wanted a seventh, a son. She prayed to God for
another son. In this village, like many other PNG villages, sons serve two purposes: firstly to preserve
the family name; secondly, having two or more sons enables the family to do more work in the
gardens or fishing in the adult years (unless they die or are estranged from each other).

Good example of maternal health care practice

In contrast to Donnelly’s experience, it is interesting to find a good example of child birthing practice
in Uura’s story. Her positive birthing experience, although many years ago, occurred in one of the
main urban hospitals in PNG. Nurses conducted antenatal and child health clinics for rural women by
travelling in government ships or trawlers. Unfortunately, these services were phased out in the 1990s.
While they were still operating, the nurses assisted rural women who could not access maternal and
child health services. Iron medications were offered to pregnant women, and services provided
included family planning and nutrition advice. Further, they advised and transported high risk women
to a nearest hospital and so avoided birth complications. Uraura needed a hospital birth and she received exceptional maternity service. In this hospital, the staff performed many safe procedures for Uraura. They examined her thoroughly. Later, when reading Christina’s story, we will hear that she was not examined by staff when she arrived at the clinic, but was sent home, only to return a few hours later in imminent labour. Christina lost both babies. But let us return to Uraura. She was placed on a good bed with a support for her head. The nurses massaged her back. Touching women is beneficial because it shows, for instance, that nurse midwives care for them and are willing to relieve pain through gentle massage. Her baby was labelled with Uraura’s name on the tag to prevent a baby swap. The newborn child was placed in a special care nursery to be cared for and fed while his mother had a tubal ligation. The visitors were restricted in the post natal ward so as to prevent infection to mothers and their babies. As a result, Uraura and baby were discharged in good health and her tubal ligation operation site healed rapidly.

**Could maternal health practice be improved?**

Nurses delivering mobile antenatal health service did not supply anti-malaria to Uraura. This was also mentioned by Rosaleen. Perhaps the nurses did not give the medication because the expectant women were quite well. However, malaria is endemic in PNG and the protocol is to give prophylaxis drugs is vital. Malaria can cause premature labour due to high fever. Underlying malaria parasites need to be treated as they destroy red blood cells that gradually lead to anaemia, a low haemoglobin level. Thus, when an anaemic woman bleeds either during antenatal, intrapartum or postnatal, she is more likely to die than someone whose haemoglobin level is normal (World Health Organization, 2007). In other words, regardless of the total blood lost being less than 500 ml, women could still die unless expert help is available. In my view, maternal health services in PNG should be improved if they include anti-malarial prophylaxis.

**Lack of transport**

Transport, or lack of it, is another common problem in PNG (World Bank, 2010). We hear from Uraura that travelling back home with a newborn baby and a sick husband is full of unexpected adventures. On the sea, her boat is left without an outboard motor, with the family drifting out at sea for a day until rescued. And then a canoe was not available so they had to wade ashore. After waiting a few days sleeping on the rough floor, a truck takes them closer to home. En route, food is in short supply. Uraura understands what she should eat but reports that fish and other protein is not available. Another canoe eventually takes them home, many days after they left the hospital.
Domestic chores

Uraura said that when she was pregnant she worked in the gardens, where she built a garden fence to stop pigs from destroying crops, and did other home chores. After the birth Uraura said she still worked on light chores. She emphasised eating good food and claimed that she had sufficient rest. In the village, a nursing mother is exempted from doing heavy chores for a few weeks after the birth. She is expected to concentrate on nursing the newborn and is asked to rest. This allows, for instance, her breast to produce adequate breast milk for the baby. But this support is possible only if her mother or other immediate female members are available to assist her. Some good husbands help, but it is the women who do home chores as pointed out in Chapter Seven.

Interview with Rosaleen

Rosaleen arrived at my home as we had arranged previously. I was happy to see her and offered a cordial drink. Then I invited her to go upstairs to my study room, a venue for our interview. We made brief talk about other matters and then I asked her if she was ready to start. Questions were invited about the information letter that I had given to her a week ago. She had been busy and had not read it. We went through it in detail, and I explained its content in the local language. Then she asked about the consent. This form was shown to her, and after further explanation she still agreed to participate so she signed it. I turned on the digital voice recorders after highlighting the reason for recording our interview. She chose Rosaleen as her fictional name.

I invited her to share her pregnancy story with me. Generally, she was comfortable as she told the story. There were, however, concerns in her relationship with her husband and his family, as well as with her own family members, that caused her to look sad at times while she talked. She seemed to regret disobeying her mother’s advice by marrying a man who does not support her and their daughter.

The interview lasted for one and a half hours. As usual I asked a few prompt questions during the session and at the end. Then, to conclude our interview, we prayed.

After the interview I offered her food, but she refused and just ate a few ripe bananas as a snack. In this way she was different from other women, who gladly ate with me in their homes as they shared their food with me.

Rosaleen’s refusal to eat a meal offered by me is not uncommon. In our custom, it is viewed as an inappropriate gesture for her, being my close relative, to accept food from me since I had just returned home and have no garden of my own. Rather she is supposed to give me food, because she lives in the village and has gardens from whence to harvest fruits and vegetables. After she left, I thought about her situation. Her deceased mother was my cousin.
Rosaleen’s story

Rosaleen is thirty-three years old and lives in Lomakunauru village. She is married, but her husband lives in town and he rarely sees her. She reached eighth grade at school. She has a daughter and she talks about this pregnancy and her birthing experience that occurred nearly a decade ago. The interview was carried out in the Mussau language. Rosaleen shared her first pregnancy story.

I got married and became pregnant while I was living in Lomakunauru village but my husband went to another town where he was arrested and went to jail. I was left alone.

I vomited a lot during the first trimester of pregnancy and I could barely eat or drink. I threw up everything that I ingested. When I was four months pregnant, I went to the health centre to attend the antenatal clinic. I looked quite pale. The male nurse gave me some iron tablets which I obediently drank. He said, “these tablets will make good blood for you to make you strong”. Although I was sick, I was not treated with anti-malarial drugs. I returned to the health centre to get more iron tablets after completing the ones that I had. I was not given any chloroquine (antimalarial) tablets.

I felt uncomfortable and embarrassed when the male nurse examined my abdomen and chest because he also touched my nipples. One day I asked two other pregnant women who also attended the antenatal clinic whether the male nurse also touched their breasts and nipples. One of them admitted that he did the same thing to her. Later on I heard that he often touched the breasts and nipples of other women. He stroked my nipples on two separate occasions even though I did not complain about pain in my breast. (She appears embarrassed). He examined me in the private room adjacent to the office where the medications were kept. There was no one else present when he examined me. Some women did not want to go back to this antenatal clinic at the health centre. When I returned home from the antenatal clinic, I too wondered whether or not I should return to the antenatal clinic for subsequent visits.

But when I was five months pregnant I went to Kavieng and there my pregnancy progressed to term. It was quite hard to have a normal pregnancy and to give birth because I did not know what to do. Fortunately, some of my family members were living in Kavieng and they fed me. I attended the Kavieng hospital antenatal clinic once a month until I gave birth. The staff offered advice but did not touch my breasts. I was also given some antimalarial tablets to drink because I was sick. They calculated my expected date of delivery (EDD).

The care I received at Kavieng clinic was much better than at the health centre on Mussau Island. The female nurses invited pregnant women to lie on an examination bed where they palpated our abdomens.
I lived with my older sister who worked in town all day. I was left alone in the house. I stayed in bed often except at times when I got up to have my shower. This became a daily routine. During the third trimester, my abdomen had enlarged so much but still I was not well. I went to live with another sister of mine.

The false labour pain began on Friday but on Sunday morning the pain was stronger so my two sisters and I went to the labour ward at Kavieng hospital. On admission, I was put on a wooden bed which caused a severe backache to me. A night duty staff performed a vaginal examination and broke the baby’s water at 7am. She did not tell me about the examination findings. That is, when I was expected to give birth or how far the head of the baby had descended into the pelvic cavity. All she said was; ‘you wait for the time to give birth’. Then she went off duty. Sometime later, another vaginal examination was done in which I was told that the baby was due to be born soon. The pain was so intense in my back. It felt like a sharp pointed object piercing into my body. I stood up and walked in the hospital walkway. Then I returned to the labour ward to have a rest. Despite my painful labour, the nurses did not pay attention to me. They did not talk to me to find out how I was feeling. They just walked to and fro, past my bed. I stayed all day in the labour ward.

My older sister said to me, you lie down on the bed and I will ask one of the nurses to help you. My sister encouraged me to tell the nurses how I felt so they could assist me. I was still in labour late that afternoon. But the nurses were busy that they did not attend to me. This was my first birthing experience. Yet only my sister and another female relative massaged my back and sponged my forehead. I wailed because of the back pain. Two nurses then ordered me to push hard because my baby was ready to be born. But the baby did not emerge from the birth passage as predicted. The pain was excruciating so I cried very loud. Then the nurses came over to my bedside to help me. For a long time I pushed hard but still the baby did not emerge. The nurses administered an intravenous drip which was completed. Still I did not give birth.

My EDD was on 27 September, 2002 but I actually gave birth three days earlier. The nurse called the doctor. When he arrived, he said, “What is the problem?” The nurses explained my situation to him and he ordered another drip. He also checked the birth passage. Without any explanation he said to me, the baby will be born soon. The staff kept saying to me, you “push the baby out”. So I pushed very hard but my efforts were unsuccessful. This pushing and pain continued for a long time. Eventually the nurses and doctor announced that my baby’s birth was ‘difficult’; the baby could not be born normally. An injection was given in my private part and a cut was made to enlarge the birth passage. They applied a machine onto my baby’s head but I was not shown this machine. They pulled and pulled. Finally, my baby was born. Then my cut was stitched up. My baby’s head was out of shape caused by the machine that was applied to it. My sister warmed her hand with a kerosene lamp and gently massaged the baby’s head. The baby’s head resumed its normal shape a few days later.
Hospital staff gave me orders which I obeyed. Such orders included lying on a bed that resulted in an aching back. There was no mattress on it except a white plastic. I was instructed to maintain my personal hygiene in order to enhance healing of the wound. During the hospital stay, I woke up early in the mornings and went for a bath at the beach near the hospital. Fortunately, the wound was healed within a few days. The nurses instructed me to breastfeed my baby who was in another room. I slowly walked over and breastfed her. The nurse warned me that my baby had been crying and needed to be fed. I sat down and tried to feed her but no milk came. The baby continued to cry. I said, I have no breast milk. But my older sister and the nurse said, let the baby suck on your nipples and then the milk will flow out. I obeyed them. Soon the breast milk flowed.

I was discharged from the hospital after three days and stayed with my older sister at her house. There were some things that my parents would have done for me which my older brothers and sisters did not do. At times I cried and thought of the advice that my mama told me in the past. Her words were true. Yet I disobeyed her. I had become a young parent and my life was sad and difficult. My baby and I lived with my family in Kavieng but I wanted us to go home to the village as soon as possible. I did not have any money to buy food. I wanted good food such as sweet potato or banana for my baby. When I asked my brothers and sisters to give me money for food, they did not. I knew it was hard financially because my sister had just started to work as a casual labourer. One of my brother in-laws was unhappy when I requested for food. He said, “Rosaleen should look for her husband and ask him for food and money”. She should not depend on us to provide for her needs”. I was embarrassed and cried because of the nasty things that some relatives did to me.

I left Kavieng as soon as I could. My sister escorted me to the wharf where I got into a boat with another relative and went back to Mussau. I went home and stayed with my father. I got free and organic food in the gardens. I was happy again.

My husband was not with me and our child. I regret that I did not obey my parent’s advice. I got involved with him and now I am burdened by living a life that is tarnished with problems. But I said to myself, it’s alright. I have learnt some lesson through my experience and past failures. I have to be a good mother to my child.

I was well at home after being discharged. I did not go for a postnatal check because the staff did not advise me to return for that. I just brought the newborn to the well-baby clinic to receive her immunizations.

**Gender specific care is preferred**

This story highlights another situation where a male providing the maternal health service was perceived as inappropriate. Perhaps one of the reasons Donnelley and Rosaleen prefer to have female staff to provide maternity care is that they believe having same-sex staff are safer, less threatening and
a cultural imperative. There are policies in place to protect women including a female staff or relative should be present when a pregnant woman is examined. That is, when a male worker is alone at the hospital or clinic, a woman should be encouraged to invite a trusted female family member or a friend to be present during an examination. It is the right of women to demand this option. But the question is, how many village women are aware of their rights?

Further, still on the subject of gender-specific care as a cultural preference, the Newcastle/PNG women were reluctant to attend the antenatal clinic because they did not want to have vaginal examination done by male doctors. Women viewed being examined by male staff as disrespectful and avoided attending the clinic. Rosaleen discovered that other women did not attend antenatal clinic because they too wanted to avoid the male nurse.

**Abuse**

The male staff member abused his position of trust as a health care provider by causing psychological and emotional stress to women under his care. In fact, touching the nipples, in particular, is highly inappropriate during pregnancy unless there is a logical reason to do so. For example, if there are obvious signs and/or symptoms or abnormalities including mastitis, inverted or cracked nipples. Moreover, first time mothers whose nipples are inverted or flat do not need stroking or fondling but basically they require advice. That is, to gently the nipples during a bath at home, so the nipples may protrude outwards so the baby would suckle well on the nipples after birth. Rosaleen was embarrassed and intimidated by being touched on her breasts and nipples.

**No voice in decisions that affected Rosaleen’s care**

Donnelley did not have a say in the decisions that affected her birthing, and in Rosaleen’s case, her male health worker failed to explain to Rosaleen why he was examining her abdomen and breasts. According to Rosaleen, he just did what he did without involving her or providing information.

**Being without a husband**

Rosaleen’s mother had warned her but she did not listen: she was married. She became pregnant and soon she was a young single mother. Her husband left the village and went to town without her. The burden of living without his emotional and financial support weighs heavily on Rosaleen’s heart. In this traditional village, she feels stigmatised by her status as a single mother. Yet she has felt the call of motherhood and has found strength to continue her life for her child.
Vacuum extraction

Medical interventions like vacuum extraction should be avoided unless there is an absolute indication to do so. Otherwise, women should be supported to have a natural birth. So far, both Donnelly and Rosaleen had vacuum extractions. Later we will hear that Wendy and Betty also had vacuum extractions done. All were exhausted, hungry and could not give birth vaginally. All of these cases revealed that they were instructed to push for a long time. In the end, a vacuum lift-out was used as a last resort to save both the lives of the mother and her unborn baby.

Nutrition

Most women were concerned about nutrition but the foods they required were not always available. Rosaleen asked her relatives for money so that she could look after herself, but money was denied. Regarding the best food for newborns, women realised that breast milk was the most nutritious. They understood that breast milk contained all the essential nutrients babies needed to grow well. They also knew that when breast milk supply decreased, alternative food was needed by the baby. When Rosaleen was in Lomakunauru, she visited her father’s garden. She was able to collect ripe banana and pawpaw which she cooked with the pumpkin. Egg yolks were good for herself and the baby. She was happy again.

Most women understand that they need nutritious foods during pregnancy so the baby can grow well and the breasts can produce milk in readiness for the newborn. Then, in the postpartum period, one should eat balanced and nutritious food accompanied by soup and water to maintain ample supply of breast milk. In my observation, some pregnant women do not eat well although food is locally available.

Food taboos

Women in Lomakunauru village have benefited from good health promotion advice in the last two decades. They know that it is important to feed their newborns with colostrum milk: thick yellowish milk that is secreted by the breasts immediately after birth and is highly valuable for the baby because of its nutrients. Prior to that, older women advised nursing mothers to express colostrum and discard it as it was deemed to be contaminated.

Food taboos in these local areas influence decisions about which foods to eat during pregnancy and after birth. For example, in the past, nursing mothers in Lomakunauru were restricted from eating fish after giving birth. When I enquired about the reason, nobody knew exactly why, but the taboo was passed down from past generations and was accepted as a norm. Some of the village elders said that a mother should not eat food that is cooked in coconut cream. Rather she should eat freshly cooked food like sweet potato, taro, dark leafy vegetables and pawpaw. The food is often cooked together as a
vegetable stew and is served with soup. Fruits are permitted if they are available locally. She is, however, restricted from consuming cold or leftover food, especially from a previous day. This makes sense as there are no refrigerators to preserve food. And no doubt leftover foods are believed to be contaminated by bacteria. It had been noted that if the mother eats leftovers, her baby will get food poisoning, vomiting or diarrhoea, or become irritable. In fact, the baby’s wellbeing and/or illness are perceived to be associated directly with his/her mother’s food intake and disposition.

**Bath at the beach**

Rosaleen had a bath at the beach after delivery. The women who have an episiotomy or laceration of the vagina and the genital tract during labour, and live in the coastal areas and outlying islands of PNG, are encouraged to wash in the sea. It is widely believed that sea salt facilitates healing of wounds, including episiotomies than fresh water. Besides, many people have been bathing in the sea for decades, largely because it is readily available, free, and besides, most villagers have neither water tanks water nor nearby rivers to swim in.

**Christina’s story**

Christina is seventy-one years old and is married. As a young woman, she attended an adult literacy education program and reached grade three. The couple had six children altogether, but only four are alive today. Christina wanted to share her first twin pregnancy because her twin baby girls died unexpectedly.

Christina begins her story like this:

*My husband and I were married on 25th December, 1973 in one of the major towns in PNG. In 1974, I became pregnant so I attended the urban antenatal clinic in the same town. My first clinic visit occurred soon after I felt the baby’s movement. Throughout the clinic visits, nurses talked and examined me and instructed me to wait for the doctor to examine me later on the same day. I urinated into a small bottle which was tested for something. Hence, my urine results were not revealed to me. These also checked my eyes and palpated my abdomen except for my breasts and private parts.*

*During my first visit, nurses examined me but they did not inform me about my health condition. They did not discuss my pregnancy with me. They just calculated my EDD. In fact, I faithfully attended the clinic for four visits according to the advice given me. In spite of that, none of the staff diagnosed my multiple pregnancy including a doctor (Christina raises her voice). None of the staff enquired about whether or not my family had a positive history of multiple pregnancies (my own family did not have twins but my husband’ family had a positive history of twins in their family. His mother had borne twins).*
In addition, the antenatal clinic staff did not ask me where I lived and whether I performed heavy chores while I was pregnant. Many times I carried heavy loads of food from the market to the squatter settlement area and then climbed the steep hill to my house. We did not have a car. At times I travelled on public transport which dropped me off at the main road and then I walked uphill to my house. This continued until my abdomen was big. By this time, my husband stopped me from carrying heavy loads. He usually carried heavy loads of food for us after returning from work. He supported me well and did not beat me like some of the women whose husbands abused them. Meanwhile, I trusted clinic staff and followed their instructions. I always allowed them to examine my body to detect possible abnormalities and treat any problems in me. I was always told; ‘everything is normal’. I was supplied iron medication to make good blood for myself and my baby. Antimalarial tablets were not supplied to me maybe because I was deemed as being healthy.

The nurses at the clinic gave health education talks on different issues including labour, especially to new expectant women. I think that my babies were tiny and may have suffocated inside my uterus causing one of them to die. I was slimmer at the time even though I ate good food like vegetables including taro, banana, greens, fish and fruits. I knew that these types of food would make me healthy and strong as well as my baby. I ate three meals a day and sometimes, I had snacks in-between. Neither did I drink alcohol nor smoked tobacco. Throughout my pregnancy, it never occurred to me that I had twins. I always thought that I had a singleton pregnancy. It was frustrating that although antenatal clinic staff palpated my abdomen many times; they failed to diagnose my twins. Therefore, I do not understand why my twins were smaller and I don’t understand why they died.

On the other hand, I decided to have a contented mind and attitude when I was pregnant. I wanted my babies to feel secure inside my womb. Then after birth they will would grow up as law-abiding citizens and responsible adults, rather than become hot tempered. I read a few good books that highlighted good things that pregnant women should do. In subsequent pregnancies, when I gave birth to other babies, I always smiled at their starring eyes and greeted them with these words; ‘I am your mother and you are most welcome’. Although tiny and incomprehensible, I always mentioned these wonderful words to them.

As mentioned, our semi-permanent house in town was located on a steep hill in one of the squatter settlement. Even at seven and eight months of pregnancy, I still carried heavy loads of food to our house. I also walked along the same route many times. When I was eight months, a close female relative died so I walked downhill to the haus-krai (a grieving house) where I wept aloud with other relatives, expressing our deep sorrow. When I returned to my house later that Saturday evening, I felt a slight tinge of pain in my abdomen. I neither realised it then nor suspected an imminent premature labour.
Early on Sunday morning, I still had mild pain so my husband, niece and I went to the outpatient department (OPD) of the nearest hospital. I mentioned to a staff on duty that my baby’s movements were felt but I was felt sick. She palpated my abdomen and listened to the fetal heart. After this, she reassured me that there was nothing wrong with me and the baby. As a result, she did not call for a doctor to examine me in the OPD. Neither did she refer me to the labour ward to be examined thoroughly. She told me to go home. I obeyed her instruction. But as soon as I arrived home, the pain got stronger. I realised that I was in true labour and would give birth to my baby soon.

In retrospect, after my twins had died, I have wondered to myself; why it is that I was not examined by a doctor at the OPD. The staff lied that my baby and I were well. But soon after that announcement was made, my twins died. I was very concerned. I know now that there are things that OPD staff should have done to assist me better but they failed to do that!

On arrival at home, my husband went to play soccer in a nearby field. He did not know that I was having true labour. I notified my niece that I should return to the hospital. She went to look for my husband. On the way, our relatives picked up her in their truck and came to pick me up beside the main road. The couple had planned to visit us that day. Earlier as I was waiting for my niece and husband to arrive, I thought of asking either mama (name for mother) Mrs Watson or Mrs Richard (expatriates whom I was acquainted with) who lived nearby to take me to the hospital in their cars. Instead the same relative drove us to the hospital. On the way to the hospital the man asked me; where is your husband? I replied that he had gone to play sports. When we arrived at the hospital, he dropped us off and went back to town to get my husband.

When he saw my husband, he was cross with him and inquired; do you not realise that Christina is in a critical situation? Why did you leave her alone and went to play? How would your game assist Christina when she is hospitalised? She is in labour. If I had not come around to see you, how would you know then that she had returned to the hospital?

As soon as I entered the OPD unit, the staff saw me and referred me immediately to the labour ward. My labour pain was strong so I was admitted into the labour ward. One of the nursing staff listened to the fetal heart but she did not tell me whether it was normal or no. Even at this time, I was not informed of my multiple pregnancy status and the baby’s condition. I cannot recall if one of the staff mentioned that to me but none of these findings were recorded in my antenatal clinic book. That is how I know that the staff were ignorant of my multiple pregnancy status. Besides, I was not seen by a doctor in the labour ward until I gave birth. Only nurses attended to me. Perhaps it was on Sunday, so the doctors were not off-duty.

I gave birth to my twins at eight months. After the first twin girl was born, the nursing staff palpated my abdomen and exclaimed! You have another baby! She encouraged me to be strong in order to
push out the second baby. I was so stunned to hear this unexpected news at the time but laboured quietly in order to give birth to my second baby girl. Sadly, it was a stillbirth. It seemed that she had died just a couple of hours ago. Soon after that, my first baby girl also died. I observed that nurses did nothing to save my first baby girl. Nothing was attempted! Maybe they thought that she was going to die anyway. So no attempt was made to save her life. The staff at that hospital failed to help my babies so they died. Yet, I had no courage then to ask them why they failed to help us. It would have been comforting to know that attempts were made to save my twins lives but they still died in the end. Later as I wailed uncontrollably at the graveside, I lamented such thought; expressing the words; 'I had expected my babies to live, and never imagined that you would leave me so soon!'. These were deep and sad emotions that I felt inside me.

In the labour ward, I was devastated by the sad news of my babies' deaths. I was heart-broken because I had hoped to hold my baby in my arms. But both of them died. The actual length of my true labour was about six hours which commenced at 9 am to 3pm on Sunday. My husband was also shattered by the sad news of our babies' deaths. When our male relative learned that my babies were dead, he notified my husband that would take the ship to its destination in NIP, PNG as quickly as he could and then return in time to help us. He wanted to assist with the funeral arrangements and burial of the babies' bodies.

Meanwhile, one of the labour ward staff instructed me to get a small red wooden box to bury my baby’s bodies in. I informed my husband so he purchased one exactly as described. I was hospitalised in a postnatal ward for one day only and was discharged on the second day. That same day, Mrs Watson drove me in her car to the town cemetery, a resting site for my babies' bodies. Our relative and my husband transported the dead bodies in his truck. We drove together to the cemetery yard. I was very sad. Mrs Watson saw the tears running down my cheeks and said, Christina, it is alright to cry aloud and express your deep sorrow. Your babies meant so much to you but you have lost them. You had hoped to hold them in your arms. That is why you must cry aloud because that will make you feel better. During the burial, I wailed loudly. After that, the same relatives invited us to stay at their house for a while until I improved. We stayed with them and then later returned to our own house.

At our own place, my niece helped with domestic chores like cleaning, cooking and doing the laundry. She allowed me to rest properly in order to recuperate. I knew little about family planning and did not use any of the contraceptives until 1981. That year I started taking oral contraceptive pills but was unfaithful with these which resulted in my final pregnancy of our son. By then my husband was keen to have a son. A nursing staff suggested tubal ligation if I did not want any more children. She warned against taking pills and injections which, she claimed, might interfere with my reproductive
system. After my son was born in 1982, I stopped having kids without undergoing a tubal ligation operation or use of other contraceptives.

At the time that I gave birth to a stillborn baby, the nurse said to me; the baby is dead. She died inside your uterus because her skin is still fresh and was not macerated. The twins were not weighed so I do not know their actual birth weights. I had expected quality maternity care from clinic and hospital staff to save my babies but they did not. My husband and I were happy when I became pregnant. But following the death of our twins and whilst pregnant with my next pregnancy, mama Watson and Richard were concerned about my baby’s condition.

In retrospect, when my twins died at the hospital, a staff nurse from another Christian denomination said to me, even though your twins died, your future kids will be fine. She continued; many parents lose their children from unexpected circumstances. Yet, there is a time for everything: a time of joy and sadness. My close relatives from Mussau also encouraged us. In particular, those that assisted us with the funeral. Mrs Watson also encouraged me when I was moaning and said; Christina, I think it is God’s plan that your babies died otherwise you could not take good care of them. I quietly responded by stating; ‘I am deeply saddened and wish that one of them had survived so I could love her but instead both of them are dead’.

Some people said that God knows a baby’s whole lifetime when s/he is born and whether or not he/she will be a responsible, caring person as he matures, and whether or not s/he will love his parents. When I listened to these comforting words, I believe that God sees us through times of joy and sorrow. I am happy now because I do not have to deal with my dead twin’s lives today. I have experienced God personally in my life.

Negligent care

Christina’s account reflects negligence by the staff of the clinic and the hospital. Here are a few examples of negligence in the story. Firstly, nobody asked her (or husband) whether her family had a history of twins. If so, they could have taken extra measures to check for possible twins. Perhaps they might have done a scan, if available then. Secondly, when she went to the OPD for the first time, she needed proper medical care, but this was not accorded her. She had done the right thing by going to the hospital to for a check-up upon realising she was in labour at eight months. The staff on duty failed to take a proper history or assess her to diagnose the problem. The staff should have called the doctor to see her and admit her for observation, just in case she was approaching true labour. If the staff member was not unsure of what to do, she should have sought a second opinion from a doctor or a senior nurse on duty.
Following instructions

The nurse reassured Christina that everything was normal with her and the baby so she did not call for assistance from a doctor. Neither did the nurse refer her to the labour ward to be examined. Christina recalls, ‘the nurse ‘advised me to go home so I obeyed her instruction’. So far all the women interviewed have followed instructions from health staff. Rarely are women partners in care. Reasons for following instructions are not explained. ‘They did not discuss my pregnancy with me’. Like Donnelley, and Rosaleen, Christina was not kept informed.

Is God on my side?

If Christina had sued or laid complaints of negligence against the hospital, she would have been justified, but most grassroots women do not know their rights as consumers of maternity health services. Therefore, in my opinion, they tend to regard their calamity as being allowed by God. ‘I think it is God’s plan that your babies died.’ Christina believes that ‘God is with us through times of joy and sorrow. I am happy now because I do not have to deal with my dead twin’s lives today. I have experienced God personally in my life.’

Being supported by others

The good thing is that Christina had support and encouragement from many people including two expatriate friends, the gospel minister and many close family members, relatives and acquaintances. She expresses how these people offered consolation her during a time of grieving. Most of the people offered prayers, gave cash or kind to assist with the funeral costs, and, as well, were present to show empathy and respect to the deceased. Immediately after the burial, a close relative, Tony (false name) and his family invited Christina and her family to live with them at their place for some time before they returned to their own home.

In the local culture, funerals and weddings are two events where everyone shows a spirit of unity and love for each other. When a person dies, all the community grieves together. From observation, even today this is practised. Immediate family members of the deceased remain indoors in a building assigned as a mourning shelter with some elderly women or men, while the younger relatives and acquaintances prepare food for them and other people who pay their respect to mourn for the dead. In my opinion, this form of support and act of kindness facilitates an emotional healing of those who are broken hearted, especially the family of the deceased.

I carried heavy loads of food

We talked about chores in an earlier section, and a history (nursing assessment) should include the kind of work the women are expected to do before and after birthing. Christine carried heavy loads.
**Returning Christina’s story to her**

When I returned the story to her, she was ecstatic and hugged me. Although this event happened many years ago it was fresh in her mind. Telling the story and seeing it in print was liberating for her. She said, ‘I am very impressed by this story and the typed print.’ She asked me to read her story (translated in ‘Tok Pisin’) to her as she listened attentively. Then she smiled and assured me that it was accurate. She thanked me and added ‘natugu this is impressive work you have done!’

Although Christina is now in her 70s and her story happened a long time ago, it may be relevant today. I believe this situation of neglect is still happening today. I doubt that much has changed since the 1970s. According to Christina, there are rumours that health services in PNG have crumbled rather than improved.

**Wendy’s story**

Wendy is aged forty-nine, and married to Morris (false name) and together they have six children. Wendy’s educational level was grade four at the primary school. She would have liked to continue school but she reported that her parents were reluctant to pay for her tuition fees to continue. Wendy gave birth to a daughter, her sixth child in early 2000.

In this story, Wendy wanted to talk about her lack of knowledge about pregnancy and birthing before she had her first child. Then she shared her sixth and final pregnancy story, because she nearly died whilst giving birth. She emphasises that her last birthing experiences involved the most difficult labour, compared with the rest. Her sixth baby was born in Kavieng General Hospital, NIP.

*When I was younger and single, nobody, including my mother and aunts advised me about marriage, pregnancy and labour; caring for babies; as well as taking care of myself during pregnancy. Nobody did. Yet I needed to know things like a pregnant woman must be careful how and where she sits down; regular eating of good foods and taking care of one’s personal hygiene. I did not know about all these things.*

*Then I was married and became pregnant, I lived alone most of the time in our house. My body did not feel well but my own family did not bother to help me. They made fun of me and left. Some of them said to me, how come you are lying in bed all day long. Perhaps you are pregnant because normally expectant women are often listless and tend to stay at home, most of the time. Even some of the family knew about my pregnant state, but they made those silly jokes to me.*

*I was ignorant about many pregnancy issues until grandpa, Peter (false name) was about to die. Morris and I stayed with him and other close family members including an older woman named Lyn (false name). One day Lyn observed that although I was pregnant, I sat on a dried coconut.*
came over and stood beside me and told me to stand-up. Then she led me to another spot and asked me to sit down on a clean flat timber. She warned that even though I may want to cool my skin, I should not lie down on a dirty surface. Instead sit on a clean karuka (a traditional woven mat). After I sat down, she instructed me about ways of taking care of myself. I was fortunate that she advised me about important things such as taking a daily bath, wearing clean loose clothing every day and to avoid sitting on the ground. She informed me that my body was like a door which would enable the baby to exit from it at birth. She said: “When you move about, inhale and exhale the baby’s doorway also moves”. She told me that when health workers at the clinic supply medications to me, I should drink these rather than throw them away or hide them under the pillow or inside the pockets of my clothes. She instructed me to eat good foods only. She said “These will help you while you are pregnant and after you have given birth. Even though I am not a health worker, I had one child of my own and therefore, I want to help you. If you obey this simple advice, you will stay healthy”.

When I had my sixth and a final birthing experience, it seemed as though I was reliving my first experience. I gave birth at Kavieng General Hospital. I do not recall the dates though because the baby’s clinic book was eaten by cockroaches inside the suitcase. I had written the babies’ birthdates inside the Bible cover, but my husband gave this book to someone else from another place.

I went to Kavieng on a small plane before I reached my pregnancy term. Before I left I asked another pregnant woman in the village to fly with me to Kavieng, so that we could both give birth at Kavieng General Hospital. Unfortunately, she stayed behind and gave birth at home and died from a severe vaginal bleeding. Her baby was a stillbirth.

At that time other expectant mothers from Lomakunauru also went to Kavieng to give birth. Four village women had travelled by a cargo ship to Kavieng. In fact, the only health centre on Mussau was closed. There were conflicts and grievances that the government was not paying lease to the land owners. But another reason for travelling to Kavieng was that some of us would give birth at Kavieng General Hospital and then have a tubal ligation (TL) done.

I did not want any more babies. But my husband was resentful; he just wanted me to continue to have his kids. But his sister was on my side. She warned me that I should value my health and that frequent childbearing was taking its toll on my physical and emotional condition. She reminded me I was always pregnant as soon as the toddler was starting to walk. As a result, all my children grew up together because of the limited spacing between each one of them. In addition, my menstrual cycle was irregular and I had suffered from bleeding for months. At first my normal period days were three but that changed. I was bleeding heavily and this alarmed me. I desperately wanted to have a TL. My husband hardly helped me with the home chores and gardening and he did not help with our young children. But even before I left home, my husband did not approve of my request for a TL. I think all he cared about was giving me many kids. One of his sisters suggested that I should have my
tubes tied after my current pregnancy and birth. I agreed. She bought my plane ticket and I flew to Kavieng as mentioned. My husband refused to sign the consent form, and without his consent I would not be able to have a tubal ligation operation.

I attended the antenatal clinic at the Mussau health centre three times but just once at Kavieng general hospital. I was instructed to take medications including malaria and iron tablets as well as receiving advice on family planning methods. After palpating my abdomen, the staff informed me that my baby was lying in the right location. I obeyed their instructions because I wanted to keep healthy. I informed the doctor that I wanted TL as I already had five children which had been conceived too close together.

At Kavieng, I walked from my aunt’s house to the antenatal clinic at the main hospital. On the same day the labour pains commenced. I was admitted to the labour ward. Although I was in labour and was ready to give birth still I could not push properly because I was hungry and weak. I had not eaten any food that day.

The nurses were angry with me when I could not push and used obscene language. One of the things they said to me was: “how come you knew how to open up your legs (implies that one’s legs were parted to have sex) but you do not know how to push your baby out!” I was utterly embarrassed and intimidated by this. Further, this abuse affected my ability to push effectively. I acted as though I was a first time mother, struggling to bear down in order to expel my baby. At the same time, there were some students who were in the ward who heard such language as: “so you acted like a prostitute and got yourself pregnant with this baby. The students just stared at me. My heart cried out in pain but the staff failed to understand the hurt and horror deep within me. They continued to ridicule me while I struggled to give birth. They said” When you screw with men did you not realise that you will come here and expose your vagina to us”. These are some examples of the terrible things they said. When I heard those things, I gave up! But then I prayed silently without closing my eyes because staff stood next to the bed. I thought, to myself, ‘Jesus, I do not want to die from the horrible things that these people are doing to me’. This story is true (Wendy expressed this statement to me perhaps to show that she did not make it up but it was true). The things that staff did and said to me were horrible. I was not only ashamed but disgusted too. I had not personally seen or heard such abuse by the staff who worked at the health centre on Mussau Island.

While I was in labour, there was a cleaner named Martha (false name) from another village on Mussau Island who worked in that section. She over-heard all the abusive language being lashed at me by the staff so she came over to see me. She was concerned and spoke very quietly to me and encouraged me to do my best in order to push the baby out. She said the baby might die if you do not push him out soon. I responded that I could not do it. But she persisted, adding that I should not
allow the negative things they had said affect me. I explained that I have never had this problem when I gave birth to my other babies. I felt as though I was going to die!

The nurses did not bother to give me water to drink or encourage me to push. I tried desperately, but I could not, as I was physically weak and emotionally traumatised. In fact, the angrier the nurses were, I observed that the students who stood by my bed displayed body gestures like morro-moro (grinning) and some covered their mouths to stop them laughing out loud (she demonstrates that by covering her own mouth with her hand). They were writing stuff in the books. When I saw that, my tears welled up in my eyes and ran down my cheeks. I thought to myself, these people do not understand what I am feeling now. I am not a prostitute and I did not conceive this baby through an act of adultery, as fictionally accused.

Further, I was not asked whether or not students could attend my birthing process. The two nursing staff and a doctor neither sought permission nor my approval to allow three students to witness my labour process. It is probably a common practice that health workers do not accord the rights and women’s views concerning who and what should be done to them. The health workers claim that students must attend and learn by observing birthing process. Later as staff members, they will care for women in labour is a reason we are told to accept students to observe us women in labour. The labour room where I was kept was smaller. I whispered to Martha that the labour ward staff acted unprofessionally and accused me fictionally for things that I had not done. Then they blamed me for failing to push properly. Then I asked Martha to give me a cup of water to drink. No matter how hard I tried, I could not birth normally.

The doctor arrived and performed an internal examination on me and then he inserted a piece of metal cup (presumably a vacuum extraction cup) and applied it on my baby’s head. I experienced excruciating pain from this procedure that aghe aigogoiee (severe swelling and pain in the genital tract). When he pulled the baby out, its head looked abnormal; out of shape, somewhat elongated. The afterbirth was removed soon after without much bleeding.

My aunt came in after the birth and she applied heat onto my baby’s head to mould it back to its normal size and shape. I was hospitalised for a week because I could not walk properly. Then I was discharged but returned later to have my TL operation.

This is how the operation unfolded. Following birth, I talked with a female staff member who was responsible for the signing of consent forms for TL. I explained that I wanted to have the TL but that the consent form had not been signed by my husband who was at home. I will get pregnant again when I return home without having surgery, I said. We called for someone to assist us. This person lived in Kavieng and he consented. After a day of post-surgery, I was discharged.
Now I look back, and recall that my hospital birthing experience was terrible. I nearly died but thankfully, two things saved my life and my baby’s: The first is a cup of water and the vacuum extraction machine. It is unacceptable that nurses never gave me any fluids, either oral or intravenous. Maybe if they knew me personally they could have assisted me better. Perhaps things have changed now at the hospital. Recently, I have heard that the current staff of the labour ward in Kavieng General Hospital are committed and caring towards birthing women.

I actually had a total hysterectomy sometime later. Prior to that, I was scanned and I saw something inside my womb that looked like cockroaches hanging in there. One of these was huge and almost filled the entire womb. The doctor explained that the operation was necessary to save my life. I consented to that and I lost my entire womb in the operation.

Not well educated and unaware about her rights

Wendy lamented that she had wanted to further her education but her parents were reluctant to pay for her fees even though they could afford her tuition. They did not support her. As a result she stayed home, and after some years she was married to her husband. We are shown her ‘ignorance’ about pregnancy and birthing when she was first married. In particular, she was not able to make important decisions pertaining to her sexual and reproductive health. Her husband overpowered and treated her unfairly.

She was unaware of her rights, which is shown on many levels: subservience to her husband, inequalities in this relationship, being viewed as a woman who is a reproductive vehicle, resistance to family planning and requiring her husband’s signature for approval to have a tubal ligation. She carried out all of the chores in both garden and house. Some of the older women in the village told her that her difficult labour was caused by carrying huge loads of firewood from the garden to the house while she was pregnant.

Abuse

When pregnant for the sixth time, she was not well and had to lie down often. The reason for feeling unwell was not explored. She was also the subject of ridicule by her family and was later abused by Health Care staff at the hospital. I am not sure who perpetrated the abuse. In PNG, the public do not know the difference between midwives and nurses because both categories wear the same white uniforms. Therefore, from the public’s viewpoint, they are all nurses. Because of this, Wendy did not know whether her carers at the time were skilled midwives or general nurses. Nevertheless, her birthing experience is not uncommon. In conversation with many mothers, I heard that most had experienced some form of verbal abuse when they were in labour at the health facilities. With dehydration, coupled with abusive accusation, exhaustion and intimidation, it is no wonder that she
could not push her baby out, even when she was ordered to. It is unacceptable to be abused as described so vividly by Wendy. Besides, she was not given a choice about having students present at the birth.

**Lack of fluids**

From Wendy’s story it is evident that she was exhausted and hungry because she had not eaten since the previous evening. The PNG standard health manual of obstetric care for doctors, midwives and nurses clearly states that women in labour should be given sips of fluids regularly every hour or whenever necessary to maintain the mother’s energy level up and prevent hypoglycaemia and dehydration. There is no restriction regarding food and drink intake before, during and after labour. But it is advisable for mothers to eat a light nutritious meal just before the onset of labour, and then have just sips of drinks throughout the labour. Then, after giving birth, a woman can eat a balanced meal. Labour is an exhausting and tiresome activity for women, so they should eat a hearty meal following labour or after a short rest afterwards. But in Wendy’s case, she was not offered fluids at all. She received only one cup of cold water that she requested from the cleaning lady who was a relative but from another village in Mussau.

**Having support**

When I had listened to Wendy’s story and returned to Kavieng, I was talking with some female friends and somehow met Martha, the cleaner of the labour ward who confirmed what Wendy had shared earlier with me. She recalled Wendy’s dilemma and how she encouraged her to stay positive and push her baby out. This shows how vital it is to have a known support person in labour. The literature shows that this benefits women in labour and results in positive outcomes for the mother and her newborn baby, more so than for women who are cared for by complete strangers, worse still by those who abuse and disrespect women under their care.

**Another vacuum extraction**

As shown in Donnelly’s and Rosaleen’ cases, Wendy could have given birth vaginally with medical intervention had she been nursed professionally, but like others, she too had a vacuum extraction done to deliver her baby. The medical intervention is unnecessary if the woman is assessed and the correct things are said and done for her during labour.

**Wendy’s response to her story**

Her response to the story was positive, just like that of other interviewees. She assured me that it was correctly summarised. She even said that she was grateful that I had given her an opportunity to share this cruel experience of birthing at Kavieng Hospital. She wanted to talk about being abused whilst in
hospital so that this malpractice could be stopped in the future. She said, ‘My negative experiences have been kept silent.’ She suggested that action to come out of this study is to acknowledge that ‘We (women) need help from health care workers to educate, mainly our young women and even the men, about the facts of reproduction, family planning and sexuality. We want things changed for the better!’

Betty’s story

Betty is aged thirty-seven years and she and her husband have four children. Her education level was year eight. Her education was cut short when her parents returned from one of the big cities in PNG. Her father forbade his children to pursue their education.

Betty chose to share her fourth and final childbirth experience. The reason for sharing her fourth was that it was eventful, whereas the previous birthing experiences were routine. The fourth was a difficult labour experience. The third child was already seven years old. This fourth child was born in Kavieng General Hospital recently. She tells her story like this.

This pregnancy was unplanned as I did not follow the instructions of an ovulation method of family planning that I had opted to use. My husband did not accept the pregnancy and he blamed me for it. I quietly thought to myself, I am going to face financial problems because of this additional child. Our two older children were attending a boarding school at Boliu, Mussau Island.

One of my legs was so swollen. I was worried whether I would have a normal birth. I developed an asthmatic condition when I was just two months pregnant. For the next three months, I had episodes of shortness of breath, a distressing problem indeed. I visited the health centre and a nurse midwife, asked me if I had any worries that impacted on my general health. I admitted that I was deeply concerned about my unplanned pregnancy and I was worried about my husband’s disapproval towards it. This person affirmed that it is possible that such anxiety has caused my asthmatic-type symptoms. Several months later my problem with breathing improved.

As my pregnancy progressed, my husband and I gradually accepted the pregnancy. We had no choice but to keep our baby. But given a bad start of this pregnancy, I delayed attending antenatal visits to have prenatal checks. Finally, at six months of pregnancy, I attended the antenatal care. I suppose I had four or five visits altogether. At the clinic, my abdomen was palpated and the baby’s heart beat was heard. The nurse gave me antimalarial tablets only but did not supply any iron tablets. She merely instructed me to eat lots of aibika (a dark green leafy vegetable) to increase my blood supply. But the senior of the health centre gave me iron tablets to drink. Without these, I would have been weaker whilst giving birth. One must eat not only greens but also take iron tablets.
My weight almost reached 100 kilograms, a cause for alarm because my previous pregnancy weights never exceeded more than 70 kilograms. The blood pressure was checked but I was not told whether it was normal or not. Perhaps the staff expected me to ask for this information before they could tell me. I should have raised such questions like, what is a normal and/or an abnormal BP reading. Or, what is the purpose of testing my blood. I had thought of asking these questions to the staff but I did not. The staff failed to inform us, ‘we’ the women under the care, about the purpose of the tests they performed on us. The urine test was not done at the health centre. Instead they enquired about urinary frequency and whether I had blood in my urine.

I went to the health centre because I thought that I might have labour soon. My pregnancy was term and I waited anxiously for one week. After that, I knew that I was overdue but the staff did nothing to induce my labour. The staff just advised me to await normal labour and to let it take its natural course. They also queried if I was sure of my last menstrual period. I responded that it was accurate and had not made a mistake. But when time passed by and I had not given birth, I was concerned.

During my previous pregnancies, my babies were born right on their due dates except for this one. I experienced slight back pain so the one of the staff performed a vaginal examination on me and said that my cervix was 1 cm dilated, still further away from giving birth. During the night, a staff asked me about the pain so I said it had stopped. Later, the mild pains resumed and I noticed slight blood stains on my underwear a few times but these stopped too. My right leg was very swollen and it felt uncomfortable. The staff referred me to Kavieng hospital because she thought that I might have a multiple pregnancy.

I travelled on an outboard motor on Sunday through open seas for six hours from Mussau to reach Kavieng hospital and was admitted to the ward. There was plan for me to have an abdominal scan earlier on that same Monday week, but this did not eventuate because by 3 am on Monday, the labour pains started.

A male staff performed a vaginal examination, assisted by a female nurse. He did not inform me that he would break my baby’s water but I noticed that water oozed out and wet my pant Then he said to me, ‘I have released the water so your belly could get smaller’. When I went outside the labour ward, the absorbent pad that I was wearing was soaked through. Then the water flowed down to my legs. I returned to the labour ward and was instructed to lie still on the bed. I obeyed this instruction. Although I pushed, the baby did not emerge. I continued to push because a nurse midwife assured me that baby’s head was visible but that it was quite large.

I was hungry because since I arrived at Kavieng Hospital late Sunday evening, it was too late to give my plate to the hospital cook for my dinner to be served. All I had eaten that Sunday was some
biscuits and a cordial drink. This had been offered to me by my relatives. And during labour I had drunk three cups of iced water.

I lacked physical strength to push effectively. I told the staff that I could not push out my baby because I was too weak. I was uncomfortable as the delivery bed was hard and wobbly. It did not have a rod for me to support myself. I had nothing to hold onto when I was sitted in an upright position with my legs being parted and attempting to push. It was highly awkward as I tried to steady my arms, hold my thighs and push at the same time. My pushing attempts were ineffective because I was exhausted and hungry.

Then a male doctor walked into the labour ward and asked the nurse about my progress. The nurse explained my situation to him. He did not examine me. Then he said, that is good; she can give birth normally. But after he left, I was still struggling to push properly and, once again I announced that I could not push my baby out. I stressed that several times and eventually she called a female obstetric doctor. This doctor decided to use a vacuum extraction machine to lift my baby out. An intravenous drip was inserted and fluids were administered, followed by a machine (vacuum lift out).

One of the staff applied a machine to pull my baby out. I did not see this thing and it was not shown to me but I just heard that they plugged it into a walled electrical power point and then it was turned on. By this time, four staff were hanging on to me. The one performing the delivery inserted her hand into my vagina and applied a vacuum cup to the baby’s head. The obstetrician delegated the responsibility to another female staff to pull on the machine. At the first attempt to pull the baby’s head, the cup slipped off. The former must have been concerned that my baby’s head might be traumatised so she took over and, at the second attempt; the baby’s head was pulled out successfully. I felt that the obstetrician supported the baby’s head with her own hand. She instructed me to push while she pulled to enable the baby to birth slowly. I followed the instruction and the baby was born on. I did not have an episiotomy or genital laceration but my groins were grossly swollen and aimarr-marai after birth (felt very sore as if soft tissues were torn around the peri anal area and my groins). I thought that perhaps the baby was quite big; her birth weight was 3.6kg. Therefore, I had such difficulty in giving birth. In fact, when I compared this present birth with my first birthing experience, this was a difficult labour. I have heard older women say the first birth is always the most difficult than subsequent births. Following my birth, I could not walk steadily unlike my previous labour and births. I was put in a wheelchair and wheeled out to the postnatal ward.

I requested to have a TL which was done that Friday week. On Saturday, the next day, during the ward round, the doctor removed the TL dressing from the wound. I observed slight bleeding oozing from it. After that, he sprayed the wound and applied a dry dressing. He commented that I can wash it but ensure to dry it thoroughly. I was discharged, sent home. I expected him to tell me to return for
a check-up but he did not. I had not been given any antibiotics and pain killers to take. Maybe the pharmacy was closed as it was Saturday.

The unpaved road, coupled with the bumpy ride contributed to the TL wound tani go--go a-ili (being swollen and with severe pain). When I returned to my relatives place in Kavieng, I could not stand upright for a long time and did not do heavy chores because the TL site ached so much. This pain persisted that my husband bought some amoxicillin tablets at a pharmacy in town. Although I attempted to do house chores I was not well.

On Sunday, a week later, an herbalist man from another island in the Murat area came over to see me. He could see that I was sick and could not walk properly. He boiled some leaves from an herbal tree at his house and instructed me to drink the liquid. This was poured into a two litre bottle. At 6am I started small amount of this liquid until it was empty. He had warned that the first time I drink the liquid it would churn my tummy. But after that I would improve on the next day and would feel better and walk normally. He was correct. When I woke up the next morning, I felt completely fine. The herbal liquid worked effectively. When he visited me on Monday, I was up and about and had done the laundry. Nevertheless, I continued to drink liquid from two more containers. After the second container, we left Kavieng and went home to Mussau. My general health has been normal since and my operation site has healed completely.

Blamed for pregnancy

Betty is blamed by her husband when their family planning goes awry and she is pregnant for the fifth time. She is worried by her husband’s wrath and the financial burden another child will bring in terms of clothing and schooling. Her concern is so great that she developed asthma-like symptoms, which disappeared once she and her husband began to accept that they would keep the child.

Who is the expert?

It is Betty’s fifth pregnancy. Her leg is swollen. The health centre staff measure her blood pressure and take her blood for tests, but she is not kept informed about the results. Signs and symptoms that indicate all is not well with this pregnancy are ignored. Her rapid weight gain is ominous. A nursing assessment is incomplete. She is given iron supplement by one staff member and anti-malaria medication by another. The health centre staff do not appear to communicate well with each other and with the women. According to Betty, things are not going well but no one is listening. Similarly, Wendy’s pregnancy was her sixth, yet she was not given a voice. I would imagine that these women know quite a lot about birthing, yet no one listens to them. And then Betty is transferred to Kavieng. Probably a good decision made by staff, but not for the reason she was given – that she might have twins! She had a singleton birth.
Transport

Betty arrived at the health centre on Thursday, a walk that takes two to three hours from her village. On Sunday she was transferred to Kavieng. This required six hours in a small boat. Relatives gave her biscuits and cordial. She was dehydrated when she arrived at the hospital. This preparation for birth of a baby is unacceptable. After her birthing experience, and possibly with infected wounds, she was shaken as she travelled over bumpy roads on the way to stay with relatives in Kavieng. Fortunately, her husband was with her on these journeys and supported her appropriately.

Gender-specific care

Betty describes the gender of one of her carers as a male. Although she does not state her preference for gender-based care, I suspect she is an advocate. She does say that the male nurse broke her water without telling her. This could be interpreted as disrespectful. When the male doctor arrived he did not examine her, rather he asked the nurse to report on Betty’s condition rather than communicating directly with her too. Talking over or ignoring the ‘women/patient’ was obvious here. Betty was certainly not a partner in the doctor-patient relationship, and it may be pushing the interpretation slightly to suggest that gender plays a role here. However, Donnelly and Rosaleen stated that they preferred women to take care of women during pregnancy and birthing, and it would not surprise me if Betty had similar preferences.

Vacuum Extraction

All women to date talk about obeying instructions. Christina uses the expression frequently. When women state that they cannot push any more, they are not listened to. ‘Push, push’ they are told. If staff had listened and responded with better nursing care earlier, would it have been necessary to do yet another vacuum extraction? Donnelley, Rosaleen and Wendy were exhausted with pushing. Betty waited many days before a vacuum extraction was done, including one failed attempt.

Betty’s response to her story

Betty was thrilled when I returned her short story to her. She smiled and graciously thanked me, adding that it was accurate and impressive. Her baby daughter is beautiful and well. She was growing fast and every time I saw her she looked a lot bigger.

Betty’s story is a good example of unsafe birthing practice. Could this practice be improved, she was asked. It is unclear if she had pre-eclampsia, a serious condition in pregnancy which affects some women. But just one of her legs was swollen and the blood pressure reading and urine test were not done and therefore, results are unknown. Her actual birthing experience appears gruesome because she had a vacuum extraction to lift her baby out. I suppose that this was used on her because she was
exhausted and hungry. She had not eaten a proper meal for more than 48 hours. Like most of the
women interviewed, Betty had no voice in the decisions that determined outcomes for mother and
child.

Violet’s story

Violet shares the story of her first pregnancy, when she had a stillborn baby at home. She delivered
eight children after this event. Her reason for sharing this first experience is that she had excruciating
labour pain at the time of birth, in contrast to all the rest of her subsequent labours.

In addition, her story gives insight into rural isolation and subsistence farming, and what happens
when there is a food shortage. Violet said:

My husband and I were married in 1953 at Lomakunauru village, Mussau Island. Then we t
ravelled
to another province in PNG to serve as missionaries. We lived alone on one side of the island and the
villagers lived on the other side. My husband and I lived in a house belonging to one of the villagers.
Eventually we built our own house to live in.

When we first arrived in the area, there was an acute food shortage that led to a widespread famine in
the entire district. The famine was largely due to a destruction of garden crops by wild pigs. The
people were hungry. Although I was pregnant, I could not eat good foods to sustain myself and the
baby. My husband and I did not make a garden for ourselves as we were newcomers. Sometimes we
ate small amounts of sago (a starchy carbohydrate), mixed with grated coconut. The sago was bought
with shell money (traditional form of value for money or cash) from the people on the mainland of the
area. It was rationed and shared amongst villagers. When we planted food crops, these failed to
thrive so we paddled in dug-out canoes across the open seas to the main land to make our gardens.

Water needed for domestic use such as drinking or washing clothes was scarce. We collected our
drinking water from the streams on the mainland. We paddled in canoes to the mainland to collect the
water from the streams. The canoe trips to and from the mainland took about two hours. Life was
challenging for us. Often, men climbed coconut trees to get green nuts for us to drink its fresh
delicious juice and eat the soft flesh. We had this as a substitute for food and drink. There were no
trade stores to sell food items. Rice was non-existent at the time.

As local missionaries, our wages were delayed. We waited about three to four months before we
finally got them. Although life was tough for us, we knew that God still blessed us. Hence, we
continued to serve in the area.

The nearest health centre was located many miles away. It took about one day to travel by canoe
from our island to reach this facility on a fine day. The trip was hazardous and risky during stormy
weather. At the time, the staff nurses from the health centre did not conduct mobile health clinics in
the out-lying islands such as MCH clinics. Because of that, I missed out on prenatal checks and routine medications like, tetanus vaccine, iron and antimalarial tablets.

I was young and strong when I was pregnant the first time even when food was scarce. Yet I had a stillbirth. I gave birth at term in 1954. One Saturday morning, I experienced mild pain in my back and wondered if I was in labour. My husband went to church but I stayed at home. While I was resting, the labour pain intensified. After the church service, my husband returned home. He supported me until late in the afternoon and then I gave birth. Sadly, the baby was a fresh stillbirth.

The labour pain, however, was so severe. I have not had the same experience since then. In fact, I have wondered if such pain was caused by the stillbirth or not. After the afterbirth was expelled, my husband wrapped the baby’s body with a piece of calico and we buried the body near our house. Although we comforted each other, I was sad because our baby’s physical appearance looked normal. I thought that he should have survived but instead he died. I could not hold him in my arms as I had anticipated.

I believe that God helped me in my labour. The health centre staff was so far away and the village women lived further away from us. There was no efficient transport back then such as outboard motors to take me to the health centre. Most of the people travelled by canoes and paddled or also used woven green coconut palm leaves as sails to travel between islands and/or the mainland. The latter option was effective only when the strong winds were blowing on the coconut-woven palm sails. This enabled the canoe to glide faster along the flowing sea currents.

When I was still single, my mother did not give me advice about pregnancy and labour processes. She assisted my older sister who gave birth to her babies at home. I had left home and was living far away in another province where I had most of my babies. In fact, given the circumstances that we had and the difficulties of accessing maternal health services, as mentioned, I had most of my babies at home except for the last baby. Fortunately, my husband always supported me throughout those times.

**Memories of death**

Violet is already in her eighties, but she has vivid memories of a stillbirth about forty years ago. Both Christina and Violet’s stories are about their babies’ death many years ago. Their stories are quite different. Violet gave birth at home, unassisted by health staff but with her husband close by. This story is a good example of tyranny of distance, non-existent transport and a first pregnancy unattended by health care personnel. Violet’s excruciating pain, occurring in hospital, may have alerted staff that something was very wrong. Or would it? Christina delivered premature twins in hospital, but the response of staff was incompetent. Transport difficulties aside, the quality of these
health services need to be considered. Improvement is required in the educational preparation of staff. Violet’s position is that women should have access to the health care they require.

**Tyranny of distance**

It can be argued that Violet’s past experiences are relevant today. The distance a woman needs to travel to access maternity care is one of the most complicated problems to address. Over 80% of the PNG population live in rural areas as stated earlier. In the last sixty years or more, very little has changed. Violet’s experience, and lack of medical intervention caused by her isolation, could be repeated today.

In fact, the transport situation is worse today than it was a decade ago (World Bank, 2010). Since the 1970s, when PNG gained independence from Australia, the health care of rural populations has declined (Papua New Guinea National Health Department, 2010; The National, 2009). From observation, this problem results from the abolition of PNG government-based transport, Maritime Department (ships) and the Land Works and Supply Department (trucks). The ships and trucks transported assisted public servants to rural areas. Through this, basic maternal health services were delivered to women, whether in the highlands of PNG or on an outlying island including Tabar Island, NIP.

**Subsistence farming**

As in Lomakunauru village, the people in Manus practised horticultural activities mostly done by women. The people travelled by small outrigger canoes to reach the gardens on the mainland. Stormy weather prevented people from accessing garden produce. Most lived on coconuts whenever the stormy seas prevented travel to the main land.

**Water and food shortage**

Water and nutritious food, although basic human needs, these were scarce on the island where Violet and her family lived. Villagers travelled on the same outrigger canoes to fetch drinking water from creeks on the mainland. During the drought, food was in short supply, an unfortunate situation for pregnant women, who need three balanced meals a day to keep healthy (Anderson, 2007; Bhutta & Haider, 2008) and enable the developing foetus to thrive, and for nursing mothers, who need good food to provide nutrients for her body, especially to increase the breast milk supply for the newborn.

**Spiritual support**

Violet’s faith in God was uncompromising.
**Violet’s response to her story**

Like Christina, she was astonished to read her shorter version of the story and exclaimed that it was very accurate. She gave me a big hug and smiled. And then she reiterated her words: ‘Your study will help younger mothers to have better health care for themselves and their babies.’ Then I gave her the gift, just like all the other participants. None of them had expected to receive a small gift, which was a token of my gratitude for their participation in the study. She was speechless for a moment and emotional. I consoled her for supporting me through a sharing of one of her birthing experiences with me. She then accepted the gift and added, ‘I needed a few new dinner plates and you have given this lovely gift to me. Thank you.’

**Enderlyn’s story**

The interview took place in the Mussau language, and then I transcribed it into Tok Pisin. Enderlyn chose to share her first pregnancy story because, according to her, it was a result of having casual sex when she was a school-aged adolescent. When she became pregnant, she promptly left school for motherhood. Enderlyn is 55 years old and she has had five children. She said:

>When I had missed two menstrual period in two months, I realised I was pregnant and wanted to get rid of it. At the time, having a baby out of wedlock would have tarnished my reputation. I was ashamed. I knew that people would gossip about me. I approached and asked a few people about ways I to kill my baby. It was my own decision to do this. Those people advised me what to do. For example, I slept on top of a piece of iron; applied hot water bottle against my abdomen and tied a large rope tightly around my belly. But despite those attempts to abort my baby, they were unsuccessful.

> I believe that God did not allow me to kill my baby. Now I thank him because not only did he save my baby’s life but also prevented my child from having any deformity. He knew that my baby had work to do in future. Today I feel sad that I had attempted to kill my child. But she is married and has her own children. She loves and helps me.

>But when my family found out I was pregnant I was ostracised. They were ashamed of me. My brothers kept silent but deep down I knew that they were hurt and ashamed of my wrong act. But after my baby was born, things were back to normal.

> I started attending the antenatal clinic towards the mid-second trimester. My abdomen was much bigger by then. Another pregnant woman from Lomakunaaru also attended the antenatal clinic with me. I followed the nurse’s advice. I had a total of five prenatal visits.

> Early one Saturday morning, about 4am my labour commenced. I was at the health centre. A female staff nurse supported me very well. For instance, she gently rubbed my back to ease the backache.
As a teenager undergoing a strenuous labour process, it was a very difficult experience for me. My grandma constantly prayed for me.

I was relaxed because a male nurse was off duty and went to church that morning. The female nurse assured me that I should give birth either at 11 am or 12 pm. She was correct. Exactly at 12 noon, my baby was born. Just prior to that, she made a cut in the birthing passage to enable the baby to be born sooner. The placenta and the membranes were soon expelled completely without any severe bleeding. Then the nurse sutured the cut.

I washed regularly in the stream at the beach to facilitate the healing process of my wound. It was quite painful though when I sat down to breast feed my baby.

The headmaster of the school I attended school wanted to adopt my newborn baby. I agreed with his decision. They donated a few items for the newborn baby. They were a mosquito net and some napkins as an indication that they will take the baby. But my mother went to the village and notified my father that the school couple wanted to adopt my child. (The couple were from the Solomon Islands). My mother explained to my father that the couple wanted to hear his decision first. That is; whether he was happy for them to adopt my baby or not. After she mentioned that, my father was speechless ... he was silent! (This form of non-verbal response being associated with a prolonged silence usually implies a 'no/negative response in this culture).

My breast nipples were quite sore. The nurse gave me a breast pump which was used to squeeze out the milk. The baby suckled on the left breast only. Three days later I was discharged. On the way, we stopped at my uncle house and he gave some items for the baby and then we walked home. My grandmother was especially kind to me and my baby. She adored her great granddaughter. Two years later, she weaned my daughter for me (she died years ago).

Abortion

Abortion is not condoned in this village but Enderlyn, who conceived while in school, attempted self-inflicted unsafe abortion. Her conscious mind aroused guilt, but at the time she went against her belief to try to kill the child. More so, it was gossip that brought remorse and regret upon herself and her family. It was an act that placed her in trouble. She could have sustained haemorrhage and infection as a result of abortion but fortunately, the attempted harm was done externally.

God

Over the years her faith in and love for God have been strengthened. She says that God not only saved her child but prevented her from incurring congenital abnormalities.
Out of wedlock

Like Maryanne, she did not marry her lover who contributed to her pregnancy. This was enough to cause much pain and distress. Only time has healed her sorrow, although at the time of the one-to-one interview, she still sought counselling to ease other forms of emotional distress.

Good maternal health service experience

Enderlyn was accorded unreserved kindness and respect during labour that she vividly remembers.

Support from family

It can be seen that her birthing outcome was successful perhaps because she had the support of her grandmother, who constantly prayed for her, and because she had strong support from the nurse as well.

Gender preference

It could have been a different story if a male nurse had assisted her at birth. Obviously, Enderlyn was fortunate that the male nurse was off duty. She was pleased that her physical body responded to the labour process. She had a good birthing outcome.

Reflections of my interview with Enderlyn

It was in the afternoon when I arrived at Enderlyn’s house for the first one-to-one interview. She had been living alone for a number of years. She was with her three-year-old granddaughter. When she saw me she warmly greeted me. Then she invited me to go to a new house nearby to ensure privacy. We sat down on the floor and made small talk. One of the comments she made was: ‘I have never talked about my story to any other people, but I trust you. That is why I am going to share it with you.’ Then we started our conversation by following the usual steps for initiating the dialogue. During the session, she cried a few times as she recalled the problems she had encountered and her intention to abort her baby.

The interview lasted for two hours. As usual I asked a few prompt questions during the session, and after she stopped sharing the story we concluded our interview with prayer.

After the interview we ate some food, and then she said, ‘My sister, I want to share something else with you. My husband has eloped with another woman. I am broken hearted, but I love him and still hope that he will come home someday. We have had our ups and downs and our marriage has not been perfect. Sometimes he blames me for my wrongdoing in the past. Life is tough for me, but I do not want to worry and die. I love my children and grandchildren so I must live longer.’
Telling me this story was cathartic for her, as she had a voice for the first time and she was heard. At the same time, I noted that she was reliving her pain and suffering. I could only suggest that she receive counselling from the local church pastor. She asked that I organise the meeting with the pastor. Village life is complicated when kinship, relatives and friends all live close together. Privacy is a luxury in the extended family or kin group.

**Returning the story to Enderlyn**

When I returned the story to her, she read it herself and nodded (an indication that she validated the story as accurate). She made only one change, the date of birth for her daughter. I promised to make the change and return the story to her soon.

**Maryanne’s story**

Maryanne is in her mid-fifties and a single parent. Her level of education was grade six. She lives in Lomakunauru and is a SDA. She said:

*My fiancé Greg (false name) visited me regularly at my home. We had an intimate relationship. But his family disapproved of our ‘special’ friendship. The verbal abuse lashed at me ended the relationship. I said to him ‘do not bother to come and see me again because our relationship is over. Maybe your family wants a perfect wife for you who hails from heaven (implies a pure, virgin woman)’. But when our relationship ended I had already missed several monthly periods.*

*One day, my mother asked me, ‘why does Greg not visit you anymore?’ I informed her about ‘breaking’ up our relationship. She just said its okay, try not to get worried about this matter. I will help you. My father lived and worked in town. He supported me well by giving me some money when I was pregnant. My uncle also helped and comforted me. In spite of that, I felt depressed and worried about my pregnancy. I was reluctant to attend the antenatal clinic at the only health centre on Mussau Island because I was very ashamed.*

*My emotional pain was horrible and unbearable. I even hid myself whenever I heard or saw someone approaching me for fear of being seen and spoken to even with close family and relatives. For instance, whenever I worked in the garden, or went to the beach, I hid in nearby bushes. I truly dreaded those moments, as I thought; these people might notice my pregnant state and then learn that I will not marry Greg, the father of my unborn child. I thought of him and realised that I had been led to believe that things would work out for us. That is, we will be married someday. So I got pregnant but things turned bitter for me. I was so ashamed of my situation as well as deeply saddened because of the kind of difficult life that I was experiencing (she speaks softly and her voice cracks to reflects her emotion).*
One day, my distant brother came to see me at our house. His wife Nola (false name) is my mother’s cousin from a similar clan and she was concerned that she had not seen me for a long time. Therefore, she had requested that he should look for and talk with me. As soon as I spotted him, I hid myself inside the hauskuk and stayed still. He called my name; Maryanne. But I remained silent. He called again, saying my sister, where are you? Slowly, I emerged from my hiding spot. He saw me and said why are you hiding yourself like this? Your mama Nola shares your sorrow and wanted to see you. But I did not go over to see her. Some days later, she came to see me at our house. I poured out my heart to her. I mentioned that Greg and I had planned to get married but his relatives had disrupted our plans. She understood my problem and said I respect your decision. She hinted that although Greg’s people were rude to you, do not despair. Instead you must leave all your cares on God. I had the courage after talking with Mama Nola and my own mother.

When I was pregnant, I tried my best to eat good food but sometimes, I was worried and lost my appetite. My mother encouraged me to visit the health centre to have antenatal care but I refused. I was still ashamed to make the trip to the centre. But one day, I summoned enough courage and I left very early in the morning and went to the health centre. But the people in that area saw me. They had heard rumours about my pregnancy but finally they literally saw me. One of the women saw me near the health centre saw and wept openly for me because of my situation. When I arrived at the health centre a female nurse was on duty. I remained silent for quite a long while. She said; what is in your mind, Maryanne? I responded quietly that I needed to have a prenatal check. She realised that I was a new client. She registered my name on a card and asked many questions that pregnant women are required to respond to. She asked me about my husband’s name. I was distressed by this question. I sat in silence and could not respond to her. Then she realised my discomfort. Finally, I explained my situation. She wrote Greg’s name on my card. According to my personal observation, when a single woman is pregnant, some locals would say; we must keep our eyes and ears open to hear who the father of her child is. This is a common practice on our island and is embedded in people’s mindsets.

I was six months pregnant by then. The nurse palpated my abdomen to check the baby’s location and supplied medications. She said, Maryanne, your baby is not lying in a normal position as other babies do whilst inside their mother’ womb. She advised me to return to the clinic just two weeks later. But I did not return.

My mother was concerned about me. She offered me advice, encouragement and prayed for me. She advised me about labour processes such as giving birth. One of my older sisters and her family came to visit us. When my sister saw me, she was overwhelmed with sorrow for the way in which I had been mistreated by Greg’s relatives. I had been home since leaving school and attend to our family’s matters, helping mom. When I got myself into such problem, none of my family members were mad at
They were worried because they had hoped that I would marry a good man who would tali e-toka i-egi (offer holistic support for me and my family in the village).

My brother, Glyn (false name) came home and took me with him to Kavieng. My older sister was married and had sent for me. We travelled on a small plane to Kavieng. Whilst at Kavieng, I was not able to communicate with my older sister. Her husband encouraged her to talk with me, to ask me how I was feeling. When I was in Kavieng, I avoided attending the antenatal clinic until I was in labour.

My labour pains started at the time when some women were working in my sister’s house. One of them, Mona (false name), noticed that I was in pain but remained quiet and composed. I did not want these women to know that I was in labour. I sat still much of the time. By late afternoon, Mona approached me privately and asked, are you in labour? You seem to have been going through this since this morning. I did not respond. After a long while, she left the group and came to check on me. I still kept quiet without talking to her.

I was so anxious about my labour and whether or not it will be normal. When the women were leaving the house that afternoon, Mona came over and prayed for me. She said; Maryanne, you are new to this kind of experience. Whatever advice your mother told you, make sure you follow that. Your mother is highly experienced in childbearing and is skilful to help you. I responded; I believe my mother’s words of wisdom. Before she left, she notified my older sister. Yet, somehow, the latter did not understand my situation, and was uncomfortable in offering motherly support to me when I needed it the most.

I felt the pain for 24 hours but I was just waiting for the wetamanu eteva tani tapolaka (the membranes to rupture and the water to ooze out of my birth passage). I laboured and waited at home and wondered about how long before the baby would be born. No one has control over the baby’s water. We even say that this atukeu (placenta) is the baby’s pillow. These things are some of my traditional beliefs as told to me by my mother.

I told my sister that I wanted to go to the hospital because age susugiegi (the pain was very intense) and this was the first time that we spoke to each other. She revealed her feelings about my condition and said, I must apologise to you my small sister. You came to stay with me but I could not talk openly with you because of the emotional pain you are going through. You see, there are two kinds of women. One type will openly communicate with others despite the sad situation while another type of women will keep silent because of the embarrassment caused by the out-of-wedlock pregnancy. You must follow our mother’s advice.

My sister and her husband drove me to Kavieng Hospital but when we arrived at the hospital, they left me and returned to their house. I had hoped that my sister would stay and support me while I was in
the labour ward. I missed my mother and wished that she was with me. I was angry at my sister for being inconsiderate (raises her voice). I wished that she had stayed to encourage me to go through labour. A nurse on duty asked me about her, if she was my relation? I answered that she is my big biological sister. The nurse said I cannot understand why she left you alone. She was upset because often, women need additional support but nurses cannot attend to their needs. They require women’s friends or family members to assist. I was so worried that my own sister had failed to help me.

A nurse examined me in the admission room and explained that I would give birth soon. That news brought so much anxiety and I struggled to stay calm. Somehow I fainted after that. The pain disappeared and had no idea what was happening to me. The nurse attempted to help me but she could not do it alone. She called for two other staff members and they carried me to a bed in the labour ward. I remained semiconscious for nearly two hours. After that I regained consciousness.

I prayed to God, acknowledging my sins and sought his forgiveness and cleansing. A nursing staff from another PNG province entered the labour ward and realised that I had woken up. I felt that my baby was ready to come out so I raised my hand for the nurse to see me. She came over to me and I informed her of my readiness to give birth. Some women have complained that some nurses are rude but this one was caring to me. She said you get ready to push now that your baby wants to come out. I said I am ready. I wasted no time. Then I lied down and gave my whole being to pushing my baby out. A former classmate and male nurse, Ken (false name) walked into the labour ward and saw me. I asked the nurse to tell Ken to leave immediately as I did not approve of his presence at my birth. I was very embarrassed. But he said, Maryanne, do not be cross or ashamed of me. This is my work so do not tell me to leave. I had courage and allowed him to stay and help me. But if he was from Mussau or someone from my own family or relative, I will never allow him to witness my birthing process. The nurse said that when you feel that the baby is descending through the birth passage, open your legs wide. I obeyed this instruction.

At first I was embarrassed but I realised that I had to do that so my baby could come out easily. I relaxed my body and opened up my legs, no longer ashamed. The nurses told me to push. She coached me: ‘hurry and push hard: one, two, push, then at the third, you push very hard’. I pushed very hard but I did not have the strength to go on. But the nurse still encouraged me to try again. When I pushed again, my baby ge ta-luusu (the head and shoulder were out). The nurse was pleased and said the most difficult work is over. She pulled the rest of the baby’s body out and placed him carefully onto the bed. Ken took my baby to another room where he weighed and gave an injection to him. He returned the baby and told me that he was a boy.

After birth, I felt that my whole body was tao-oso (my body was relieved of its huge load, starting from the head and extending to my toes). I was overjoyed that I had a normal birth. The afterbirth was delivered a few minutes later. I did not have to have a cut but lost much blood. I was given a
bag of blood to restore the blood loss and some iron medications to make new blood. The nurse informed me about this. She was very pleased and commended me for that. My two helpers assisted me very well. I gave birth at ten in the morning and then attempted to breastfeed my baby early that same afternoon.

Ken and the female nurse cleaned the baby. My mother had advised me about bathing a newborn baby. I did that with my own baby but I also observed other new mothers bathing theirs. One older lady from Tabar Island, in NIP said to me; sister (a common term used even among strangers to initiate friendship between parties concerned) let us bath our babies. She asked me how many children I have had. I said, this is my first child. She then demonstrated how to hold, wrap, sponge and wipe the baby. We became good friends.

The nurse gave me a tooth brush to scrub my nipples and then I expressed breast milk into a small bottle. I was not sure if this was the right thing to use but I did not ask the nurse about it. Then she told me to breastfeed my baby. I knew that my breasts will definitely produce milk afterwards. The nurse showed me how to hold the baby properly while he suckled. He started to feed well perhaps because he must have been hungry. I was very hungry after a long hard labour and longed to savour a hearty meal. This is a normal practice for women. But my older sister did not visit me until late around 5 or 6 pm. I had eaten no breakfast or lunch at all. I was upset with her. She visited me by herself. My other relatives did not bother to visit me either that day. I quietly thought emei-e! (It is an expression of disapproval)

On the second day, my other family relatives visited us. If they are unhappy or happy with me, I’ll observe their behaviour toward me. I accepted the fact that I was wrong. I was hospitalised for four days and then discharged. I was advised by the doctor to return two weeks later for a postnatal check at the hospital. But when I returned to my sister’s house, I announced that I did not want to remain in their house much longer. I wanted to return to the village to see my mother. I was worried about my baby’s wellbeing.

My sister’s husband paid for my boat fare to travel home soon after that. Therefore, I did not have a follow-up postnatal check that time. Although I experienced so much heartache, I always committed these to God and have experienced his blessings for me. Before I became pregnant, my mother never shared these things with me as she was embarrassed. I learnt a lot from her personal experience and wisdom. She had delivered nearly ten of her babies at home. Other village midwives, including Margaret, Kate, and Alison all shared invaluable insights about childbearing with me. These women were committed to helping those who had homebirths. When the placenta was retained, Margaret, for example, inserted her hand (without gloves) and removed it manually to save a woman. This group was highly respected by the community. In the past, when a woman was in labour at her home, a messenger either a female family relative or her husband was sent to get a practising village
midwife/s to assist her. Nowadays, Alison and Margaret sometime assist some of the women if they have homebirths although some women give birth by themselves or are helped by their own mothers and grandmothers. Others go to the health centre or Kavieng hospital to give birth.

Shame and its impact on a young unwed woman

Maryanne is an engaging storyteller, whose story reveals her anguish and pain of having a child out of wedlock. I believe that even now the same shame feelings are experienced by women who have an out of wedlock pregnancy. According to religious belief, all forms of sexual infidelity, including premarital sex, is sinful. These acts are contrary to the Biblical teaching. The church and the community have laws that forbid such acts. But as sinful humans there is a tendency to fall into immoral temptations. The church and community laws deal with such issues, mostly to assist parties who have erred and committed adultery or fornication. These confess their sins.

All pregnancies that occur within marriage are acceptable in heterosexual relationships. Those conceived out of wedlock, especially in the past decades, brought contempt and shame to the woman and her family. According to the elderly folk, such were so uncommon that whenever an unmarried woman fell pregnant, she was gossiped about by some people. That is how Enderlyn described her own experience, saying, ‘My name was tarnished, so I wanted to abort my foetus.’

In today’s society, a few young ladies become pregnant while they are courting. When this happens, the families concerned encourage the lovers to get married soon, so they can raise the child as a family. In doing so, the tendency to gossip about the couple is minimised. But not everyone is lucky to marry their lovers, as was Maryanne’s case. It is usually, the family elders of the man, such as the uncles and his aunts (a man’s mother’s biological brothers and sisters), control the decision about whether or not the young man should marry the pregnant lady. If the decision is favourable, then the parties marry. If not, a woman becomes a single mother unless some years later she is free to marry another man if she wishes to. When this happens, the man accepts not only herself but her kid/s too as his own. The common rationale is that children who are born out of wedlock are innocent and deserve loved regardless.

Impact of shame on pregnancy and birthing

Maryanne finally followed her family’s advice to undergo antenatal checks, although she had reservations about travelling to the health centre. But the staff on duty was possibly unaware of her situation and were insensitive to her psycho-emotional needs. They insulted her, as it were, by asking for the name of her husband. She admits refusing to return to the same clinic even though the staff advised her to return in future to undergo further antenatal checks. In my opinion, teenage pregnant
women’s health can be drastically affected if they despise attending prenatal clinics for fear of being asked for the husband’s identity and then gossiped about.

**Good maternal health care**

In Maryanne’s story it is clear that staff who assisted her were kind and understanding. As a result, she had a positive birth outcome.

**Gender preference**

Maryanne was embarrassed when the male staff walked into the labour ward, and she objected to his presence, but he assured her that it was his duty to assist her, along with the female staff. She consented and gave birth. But she preferred to have only female staff assisting her.

**What is known about pregnancy and birthing, and how is this information conveyed?**

Just like other women, Maryanne and Enderlyn were young and in school when she conceived. In this village, it was impossible for her to have learnt the facts about human sexuality and reproduction, including pregnancy and its implications for the lives of teenagers. Even in school she was not given sex education. She might have heard rumours and or myths, but was not equipped to make a rationale decision concerning sex and the likelihood of getting pregnant at the time.

**Multiple family members: two different kind of sisters**

Maryanne was dismayed because her older step-sister did not communicate with her even though they lived together in the same house. Perhaps because she was younger she was powerless to initiate communication between them. Or maybe they had no sisterly bonding when they were growing up. Her older sister was probably ashamed of, or perhaps angry with, Maryanne for getting pregnant. There might be other reasons that Maryanne did not disclose to me because of the sensitive nature.

**The importance of supportive relatives**

The support of loving relatives does make a significant contribution to good outcomes of pregnancy. This is evident in the stories of Maryanne, Enderlyn, Violet and Donnelly. Although the women gave birth at the health facilities, their relatives were present and constantly prayed for them or encouraged them to remain calm until they gave birth. At home, similar support enriches the life of the woman and the newborn when a nursing woman is allowed to have rest. Her helpers perform daily chores for her, including cooking, cleaning and laundry, so she has sufficient time to care for and breastfeed her baby well. In contrast, a woman who lacks family support and does chores by herself can be physically and emotionally worn out. Less time is spent with the newborn baby. Research shows that women who experience difficulties in coping with motherhood after delivery have postpartum
depression (Söderquist, Wijma, Thorbert, & Wijma, 2009). This affects the disposition of their babies, who feel insecure and are often hungry because of a lack of breast milk or love from the mother.

**Maryanne's response to health staff kindness and its impact on pregnancy and delivery**

The kindness of labour ward staff to Maryanne led to an optimum outcome for her. This illustrates a tenet that kindness and respect to individual women in labour is a critical element of the care of women. Faye experienced that personally and testifies that a midwife on duty was her friend. It can be argued that some staff members are biased when assisting women under their care. In other words, they tend to provide better care to their friends and families than to strangers. Regardless, everyone deserves to have equal care, and it is their basic right.

**What is known about pregnancy and birthing, and how is this information conveyed?**

Maryanne says, ‘Before I became pregnant, my mother never shared these things (referring to pregnancy and labour) with me as she was embarrassed. But later when I became pregnant, I learned a lot from her personal experience and wisdom. I heard from other women who talked to me other than during formal one-to-one interviews, and stated that information relating to pregnancy and childbirth were conveyed by elderly women to women who became pregnant. These were often mothers themselves, who had exercised their birthing skills by working alongside women as TBAs. As such, they had the high regard and respect of the entire community. While listening to the women, I noted that they were knowledgeable about the childbearing process. When complications arose during labour or at birth, TBAs attempted traditional forms of remedy to avert the problem. For instance, a female birth assistant applied lukewarm water constantly to the umbilical cord as she waited for the TBA to arrive. The placenta had not been delivered after birth, and it was thought that the water would keep the umbilical cord moist so it would not dry up or become infected. In doing do, it would not snap off as it was pulled on gently to expel it. It was uncommon, though, to talk openly about pregnancy and birthing processes to younger women until they were married or pregnant. The grandma or mother shared the information to the daughters, but often the woman learned through their own personal experiences as a mother.

According to observation, there are good aspects of traditional birthing practices that ought to be preserved in this locality. Likewise, there are a few negative birthing practices that village women should be aware of and avoid using. But instead of using oral storytelling only, it is important, in my opinion, to write information too, so it is preserved for future generations. I say this because since I commenced my PhD candidature in 2007, and up to 2009, just before I conducted the field research in Lomakunauru village, there were ten elderly women who died. The deceased were mothers who had
an average of seven children and were experts on pregnancy and birthing in the village. Unfortunately, they died without having an opportunity to share the full extent of their rich pregnancy experiences or stories. In fact, some of them practiced as TBAs. Many had nearly eight to ten deliveries as home births, a good source of information by which to evaluate safe and unsafe traditional birthing procedures. Maryanne and Wendy mentioned some of the things that were done by this group of women. The brief information that was conveyed by those who are alive is in typed print. This traditional pregnancy information will be preserved and available for future generations.

**Maryanne, a good storyteller**

Maryanne is an engaging storyteller, as indicated by her story shown above. She shared most of the tale in detail, thus capturing the essence of living in this village as an unwed, young, pregnant woman, along with the distress experienced as a result of her pregnancy. Younger people can learn from this story and choose an alternative path: marriage before conceiving children. While the latter option does not remove all the unpleasantness of marriage and pregnancy blues, there are greater benefits that are gained from a loving union within a marital relationship. Besides, vital lessons can be learnt from Maryanne’s case in relation to the types of health care specific to the needs of adolescents and youths. In other words, what should be done to address the issues of premarital pregnancy, sex education for teens, contraceptives and sexually transmitted diseases, to name a few, and to help this group make informed choices or rational decisions to safeguard their lives against ugly outcomes.

**Returning the story to Maryanne**

Maryanne was a good storyteller. Although the story is rather long, it captures the experience very well. It also demonstrates the importance of support of family or nursing staff. Maryanne was impressed with the typed print when I returned her story. She read it carefully and she assured me that it was accurate. She looked relieved. I was thankful that she had shared it with me.

**Lindy’s story**

Lindy was born and is one of the elders in the village. She is aged seventy-nine and a widow. She is also a SDA follower. She had two years of adult literacy education. She gave birth to twelve children, and only one died. These childbearing events occurred while she and her husband worked as missionaries in another province.

She was not a natural storyteller, so I asked her some questions which are answered below. Lindy briefly talked about her tenth pregnancy and birth of a daughter who was very small and covered with white spots on her skin.
I had this pregnancy when we lived in another province in PNG. It was at a time when my family was preparing to go home for holiday on Mussau, PNG that we managed to travel on a ship, called Kaseli to an island, where I gave birth at a Catholic Health Centre. When I became pregnant it was very difficult for me to reach the health centre to have regular antenatal checks because of the long distance to travel. My labour pain commenced when we arrived at the island. A Catholic Nun sister assisted me very well when I gave birth to my baby daughter. When we were leaving for Mussau, the same Catholic sister advised me to take good care of my baby. When I returned home, I was well. I am very pleased with my daughter who survived and is employed today.

Skilled maternal health attendance

Lindy told me that her other eleven pregnancies and births were normal and were homebirths. Her strengths were that she was an expert in giving birth but still benefited from the advice of others. Unfortunately, she could neither attend antenatal clinics nor give birth at the health centres largely because of the great distance to a ‘nearest facility’. In the case of the present pregnancy experience, she says that because the family was going to Mussau, they had travelled via ship. Therefore, she was able to give birth in a mission health centre. Fortunately, she and her tiny baby received care and advice from the staff, which enabled her to take good care of the baby, who thrived.

In Lindy’s situation, the skilled staff assisted her professionally, which enabled her to receive proper care and a satisfactory outcome for her and the newborn. From personal observation and according to stories shared, women who are respected and accorded understanding and a voice during their labour are more willing to follow instructions that nurses and midwives instruct them to follow than those who are mistreated and/or abused in labour. The essential element is trust in one’s helper.

Some women have lamented that they would not eat just before the onset of labour because they prefer to have an empty bladder during birth. As a result, these women need more fluids to maintain their hydration and strength until they have given birth, and then they can eat properly.

My recall of Lindy’s spotty baby

Lindy described her daughter as very small that she could have died were it not for the right advice and her commitment to take great care towards the newborn. I remember the time that Lindy and her family arrived at home when I was nearly quite young. My parents and I visited them in their house. I noticed a newborn’s tiny hands and feet. They looked quite strange to me. I quietly wondered whether she would survive or not. But I do not recall seeing the white spots on her frail body. Perhaps they had disappeared already. Interestingly, within a few weeks, the baby grew and was healthier. I marvelled at Lindy’s ability to nurture her baby to thrive. The main reason she shared her story is that she
believes that God saved her daughter. Today Lindy’s daughter is employed as an educator. Her other siblings live at home and some are in towns in PNG.

**Family planning**

Lindy had a dozen children, and I was curious about family planning. When probed about family planning she admitted hearing about it. One of her sisters had encouraged her to use contraceptives in the 1970s. But she refused to do so. When I asked, ‘What influenced your decision to avoid contraception’, she became silent. I respected that non-verbal body gesture. I assured her that it was okay to keep silent or refuse to disclose any information that caused distress on her.

**Faith in God**

Lindy is a praying woman. She said that prayer sustained her faith in God. She gives credit to God for her daughter’s successful teaching career and personal ministry to her.

**Returning Lindy’s story**

When I returned Lindy’s short story, she wanted me to read it to her. She listened attentively. Then she exclaimed that it was accurate and was impressed by the type-printed document. We hugged each other as a way of expressing our gratitude and respect for each other. Then I gave her gift. She was delighted to receive this gift.

**Discussion of the story commonalities**

The interview, analysis process and storyline writing were repeated for each transcript. I then compiled a list of all significant statements from each of the stories. I wrote up the commonalities as constructs based on these. In other research clustered text, commonalities or constructs might be called ‘findings’.

In this discussion section, I will talk about these main constructs. There were commonalities in the stories of Donnelly, Uraura, Rosaleen, Christina, Wendy, Betty, Violet, Enderlyn, Maryanne and Lindy. As I was clustering these commonalities in experience, I recalled that the Newcastle PNG women had similar stories and some of their words support these ‘findings’. The fictional names of the Newcastle/PNG women are Gloria, Sili, Faye and Mary.

The main constructs are: support (or lack of) and the role of husbands; preference for gender-specific care; spiritual devotion and trust in God sustaining women while birthing; and their views on abortion.

Other main constructs to be discussed will be about deficits in maternity health care provision as experienced by women: service delivery staff perpetrated negligence and abuse; being voiceless; and
room for improvement in maternal care communication. I will present another construct which brings together material from stories that I believe are useful in understanding the social roles and domestic arrangements that are taken for granted in the village. There are many social, cultural, gender and religious norms that guide living in this village, and breaking these has affected women and continues to do so today. I will discuss family planning, educational and informational needs, gender-specific roles and say more about the human right to receive respectful and responsive maternal health care. Women had good knowledge about nutrition and I will talk about food taboos in this local PNG area.

Another major construct is transport (or lack of it) to carry women safely across the terrain or water to deliver their child. The distance a woman needs to travel to gain access to maternal care is one of the most complicated problems to address. The problem is that the PNG government needs to spend money on roads, schools, and basic infrastructure for a population located in an isolated countryside. I will talk about lack of infra-structure, including a dilapidated building where women received maternal health care, and suggest a return to mobile health service options of yesteryear.

Finally, I will present a good example of maternal health care and ask whether maternal health practice can be improved in PNG. Then I will ask what village women want.

**Support (or lack of) for women**

One of the commonalities shared by the women was that it was important to have a family member nearby for support during labour and birthing. However, for most women this did not happen. According to Rosaleen, she felt abandoned by the labour ward staff when she was already in intense labour pain. She was grateful that her older sister was at her side and encouraged her to lie on the bed and scream loudly to catch the attention of the staff on duty, and they responded. Otherwise, Rosaleen believed, she could have been left alone for hours without being seen or heard. Donnelly affirmed that having her own sister at her bedside during labour motivated her to push, even though she had given up hope of giving birth. Likewise, Enderlyn had a successful birthing experience and claimed she had the support from her grandmother, who constantly prayed for her while she was in labour and giving birth.

Two women had stillbirths and they give an account of the support they received. Violet’s husband was present due to non-availability of female family members or relatives to offer support. She said, ‘My husband supported me until late in the afternoon. Then I gave birth. Sadly, the baby was a stillbirth. He wrapped the body and we buried the body him near our house. We comforted each other.’ Christina gave premature birth to twins at eight months of gestation. Her husband could have witnessed her birthing but this couple had been turned away by staff, claiming she was not ready. She gave birth to a stillborn and a perinatal death.
Labour and birthing for the other women was unsupported, a solitary business. Mary gave birth to her newborn unaided and cut her own umbilical cord. Most women said they desired support especially during labour and birthing. Distance to the nearest facility where birthing could take place was often a major problem; living far away from family and home made it impossible to have family at their side. Where possible, the support was sought from a trusted female relative. During labour, such a person could provide practical help such as massaging her back, offering regular fluids and encouragement. But most women did not have this support.

The role of husbands

Most women would have elected their husband to attend the birth of their baby. Faye who wanted support from her husband and was able to make this choice said, ‘Just as I was ready to give birth, the nurse contacted my husband. He was with me when I gave birth to our baby son, Randell (false name). My husband held our son and cut the umbilical cord.’ However, this is an exception; a choice to have a husband present is not traditionally sanctioned. Husbands are usually bystanders and can only assist if the wife does not have female helpers. Men might accompany their wives to the health centre but they are prevented from witnessing the actual birth because it is regarded as women’s business, a socially construed norm in the local culture. Men sometimes play a role as a ‘messenger’ sent to seek help in an emergency in this village, walking long distances when ‘professional’ help is a norm.

And while there are some husbands who might like to witness and support their wives’ labour, a major obstacle is lack of space and privacy in the labour ward. Gloria said, ‘I was in the labour room, but I heard my husband begging the nurse outside to let him inside and see me. But the nurse insisted, “you must stay outside, men are not permitted inside the labour ward.’ In this situation, it was lack of space in the labour ward, although gender may have played a part in the refusal. According to personal observation, the labour ward in one of the major hospitals in PNG fails to provide privacy for the women in labour and birth. Some women’s modesty is compromised due to unnecessary exposure whilst having vaginal examinations or giving birth.

What women want – gender-specific care

Gender-specific care is a cultural imperative but as the data from the stories have reflected, women desired such care also due to negative and abusive encounters from carers. Maryanne, Donnelly and Rosaleen stated openly that they preferred women to take care of other women during pregnancy and birthing. They preferred female staff to provide maternity care. Same-sex health care staff were regarded as non-threatening. Betty despised care provided to her by male doctors and nurses. It was Betty’s fifth pregnancy, and her status as a woman and knowledge on pregnancy and birth was disregarded. Her voice was ignored. Staff did not involve her (and other women) in the decisions that
affected her pregnancy and birthing; she was not asked for her opinion. Enderlyn was fortunate to
give birth without the male nurse assistance. Further, still on the subject of gender-specific care as a
cultural preference, the Newcastle/PNG women were reluctant to attend the antenatal clinic because
they refused to have vaginal examination performed by male doctors. Rosaleen discovered that other
women did not attend the antenatal clinic, because they too avoided the male nurse.

**Spiritual devotion and trust in God was sustained**

Christina prayed to God to save her and her babies and said she was heartbroken when the twins died.
But later she believed God was with her. Despite the loss, she felt blessed to have other three beautiful
daughters and praised God. Uraura specifically asked God for another son. Some women like
Uraura, made special prayer requests. Donnelly said, ‘My baby son was born alive and thanked God
for saving him.’

On the same note, Violet’s faith in God was uncompromising when she and her husband had a
stillbirth. He was their first child and even though they were furthest from home, their faith in God
remained true. Enderlyn said, ‘I believe that God spared my baby’s life.’ Maryanne sought God’s
forgiveness in the labour ward, had a normal live birth which she attributed to God’s mercy. The
women prayed regularly to God in good times as well as in difficult times.

When calamity strikes, as is the case in a difficult labour or a death of a baby, they sought divine
strength to sustain them. The prayers of loved ones gave strength in difficult circumstances. Such
practice is common in Lomakunauru village. Faith and religion is a part of women’s life, and in the
context of this Adventist Lomakunauru village, the women prayed consistently Women refer to the
Bible that expresses that ‘faith is the substance of things including eternal life and heaven which are
hoped for although not seen. Even though women could not see, talk with or touch Jesus, in their
hearts they believed that He was present with them in the labour room and was helping each one of
them to give birth despite the suffering they encountered. When birthing was over, they
acknowledged God for saving their lives, as pointed out by Donnelly above. Lindy is grateful too for
her daughter, who was saved, and, as is healthy today’. Having a job is one aspect of living in this
village that is highly regarded.

**Abortion is not an acceptable option to reduce maternal mortality in PNG**

The people of Lomakunauru have a strong commitment to Christianity and they follow the Biblical
teaching that life is a sacred gift from God, who created it. Therefore, it should not be destroyed by
humans. Because of this, the strategy to reduce maternal mortality through legalising termination of
pregnancy and abortion is not an acceptable option to reduce maternal mortality as practised in some
developing countries (Harper, 2007).
Although none of the women broached the idea of women having legal abortion as a way to control maternal mortality, it can be, at times, a desperate option, as was noted in Enderlyn’s story, ‘When I had missed my menstrual period for two months, she noted, I was pregnant and wanted to terminate it. But attempts were unsuccessful.’ This unsafe abortion was not only illegal but also against her strong faith.

**Negligence and abuse**

Several women, Donnelly, Christina, Rosaleen and Wendy, described services received from staff as negligent or even abusive. When Donnelly recognised the labour process as ‘abnormal’, she begged staff to provide an alternative method for giving birth to the baby. This help was not forthcoming. Christina on the other hand was not well assessed during pregnancy or when birthing and her twins died. Rosaleen talked about a male nurse fondling her breasts during the pre-natal examination. She was convinced that this was unprofessional conduct and she asked other women before she was convinced that she had been abused. And Wendy was pregnant for the sixth time and knew something was wrong with her but nobody listened to her while in labour, she was verbally abused. Conversations with women revealed that most had experienced some form of verbal abuse from health staff when they were in labour. Wendy was not assessed, but if she had been, staff would have registered that this woman was dehydrated and exhausted. Being intimidated was an additional insult, and severely retarded the birthing process.

**Voiceless**

Health care professionals never consulted women towards their care: the latter were voiceless. Partnership in the relationship between women and health care providers appeared not to be a priority. Donnelly’s voice was not heard when she requested drug assistance with birthing. When oxytocin was denied, she requested a vacuum extraction to lift her baby out. Donnelley was denied a voice in the birthing decisions that affected her. In Rosaleen’s case, the male health worker failed to explain why he was examining her abdomen and breasts and did what he wanted to do without involving her or providing information.

Donnelley, Rosaleen, Christina, Betty and Wendy were not kept informed. The nurse reassured Christina that there was nothing wrong with her and the baby. The nurse ‘advised me to go home so I obeyed her instruction.’ So far, all the women interviewed followed instructions from nurses and doctors. Rarely are women partners in their care. Reasons for following instructions were not explained fully but Christina argued that health staff were trusted and viewed as knowledgeable. Therefore, she trusted them to take good care of her and other women. Somehow, she regrets that staff did not discuss my pregnancy with me,’ said Christina. It was Betty’s fifth pregnancy. Her leg was swollen. Although staff read her blood pressure and tested blood she was not kept informed about
the results. According to Betty things were bad but no listened to her then was transferred to Kavieng. Similarly, Wendy’s pregnancy was her sixth yet she did not have a voice. I should imagine that these women knew quite a lot about birthing, yet no one listened to them. Their rich expertise in pregnancy and birthing was totally ignored and belittled.

Women said they were forced to push for a long time. When they could not push any more, the staff did not listen to their pleas. It was almost too late for some of them to have vacuum extractions.

**Room for improvement in maternal care: communication**

There were a few incidences reported of problems in the line of communication between staff in both Primary Health Care centres and hospitals. Donnelly explained that the senior officer did not want to listen to suggestions made by the junior staff concerning her care. Overall, it is suggested that staff providing maternal health care were not educationally prepared for pregnancy and birthing. Part of an educational preparation would be communication skills, which would include being civil to clients, providing information, listening to their voices, acknowledging holistic support like spiritual needs, ensuring family support is available and acknowledging expertise of mothers, and working in partnerships with this group toward good birthing outcomes.

**Taking for granted social roles and domestic arrangements**

One of the benefits of being an insider researcher is that I was familiar with the role of women in the village and understand domestic chores. Nevertheless, I want to share some of the roles, as witnessed and heard about from the women, as I fear some of this information will be taken for granted. One of the important aims of doing research in this village was to contextualise pregnancy and birthing as it has been experienced by village women. First, I will talk about the chores that are part of every woman’s daily life, and if she is not able to do these for whatever reason, the consideration that has to be given by those living with her. Often those living with the women are her children, and although several participating women were widowed or separated, most had husbands. Extended families are not uncommon, so even when children are grown up, or married adult children, they may still share the household. Extended families may live in adjacent houses, gathering frequently for meals and companionship. Children, especially boys, may help by collecting firewood or carrying water.

Uraura said that when she was pregnant she erected a garden fence to stop pigs from destroying garden crops. After the birth, Uraura was expected to do light chores. In her village, a nursing mother was often exempted from doing heavy chores for some weeks. Such benefit is possible if immediate female members are available. Mary from the PNG/Newcastle women, talked about carrying heavy loads in another village as a common chore. Christina also carried heavy loads on her head. The roles that women are expected to undertake while pregnant and after birth need to be taken
account of. Mary was certain that her premature labour was induced by huge loads being carried up and down steep mountains. Wendy carried out all of the chores both in the garden and household. And her difficult labour was accused as being caused by heavy loads of firewood carried on her head from the garden to the house during pregnancy. In this village, women carry loads of food and firewood together, on their heads. This practice has existed for decades until the present. The men, however, carry heavy loads mostly on their shoulders.

This village consists of hamlets along the beach except one. Gardens are grown in more fertile areas up on the hills and vales. Horticultural activities are done mostly by women. Food preparations, as told are done almost by women. It was not unusual to bathe in the sea. Rosaleen and Enderlyn had a bath at the beach postnatal. The coastal women with episiotomies or laceration/s are encouraged to bathe in the sea.

Social ‘norms’

Several women had experiences that were not condoned, at least as perceived by them. Enderlyn attempted to abort her child and, as she explained, still felt guilty and ashamed of this act despite being relieved that a healthy baby daughter was born. The official Adventist position is that abortions for reasons of birth control or convenience are not condoned by the Church. Enderlyn’s heart was still heavy many years later. Rosaleen’s did not adhere to her mother advice, thus she regretted having been married. In this traditional village, she felt stigmatised by her status as a single mother. Betty received verbal abuse from her husband as a result of being pregnant the fifth time because the family could not financially afford another child.

Maryanne expressed shame and demonstrated its impact on pregnancy and birthing. She had an out-of wedlock pregnancy and recalled that, ‘Our plan to get married crumbled.’ She did not marry her fiancée. This realisation caused much pain and shame that led to her isolation from other people except her immediate family. She did not attend the antenatal clinic at the health centre even though she was aware of its availability and its possible benefits. Like Enderlyn, she felt she was gossiped about by some villagers. In this community when a young single woman becomes pregnant, some people make it their business to find out who the biological father of the child is. Although Maryanne did not indicate whether or not she attempted to abort her baby, it is clear that for women in her situation, remorseful feelings of becoming a single mother can shape one’s decision to cause an abortion. At such times, pregnant women experience either positive or negative moods, and are susceptible to forms of insult, unless they are supported in a loving and caring environment at home, in the community and the health facility staff. Failure to receive good support may lead to disillusionment. Hence, they remain at home without seeking skilled birthing care. But when love and understanding is given to them, emotional guilt and remorse could be mitigated and one might seek medical care as explained below.
Another norm observed was that women chose not to talk about family planning, unless the plan (or lack of) had gone awry, as described above with Enderlyn, Rosaleen and Betty. I asked Lindy what she knew about family planning, given that she had twelve children, but her response was gently evasive. I did not ask directly about family planning, because it would have been culturally insensitive to do so. Besides, I invited women to tell their story about pregnancy and birthing in whichever way they wished, and while I had prompts should the conversations lull, there were no precise questions about family planning. Rather I thought these sensitive issues might have emerged in subsequent discussions. Nonetheless, it was surprising that only two women talked briefly about family planning.

Most women had preliminary primary school education, and an average time at school was four years. Wendy confided that she wanted to further her education but her parents refused to support her. I suggest that while these women were clever despite a lack of formal educational opportunity, questioning or even knowing about their human rights was not usual. A women’s movement such as the White Ribbon Alliance has found many ways to reach and speak with women through their local communities. And while this women’s movement aims to empower women, enabling them to know their rights and entitlements to decent health care, this message had not reached this village.

As discussed, there are gender-specific roles and the right to receive respectful and responsive maternity care, but as women have few expectations, these rights cannot yet be realised. The PAR group process to follow these one-to-one interviews aims to discuss women’s rights, so there will be a consciousness raising activity. Meanwhile, women have asked for more information about pregnancy and birthing. This was particularly evident with the PNG/ Newcastle women. Although the village women did not raise their desire to receive educational information about maternal health as something they needed, similarly to the PNG-Newcastle women, it was clear that Wendy had revealed ‘a lack of basic understanding’ about pregnancy and birthing when she was first married. They village women chose, however, to undergo a practical basic midwifery training which is explained later in the next chapter in the PAR group section to follow. Meanwhile, Wendy was ignorant and/or unaware of her rights, which is shown on many levels: gender inequality as imposed by her husband. I suspect all women would benefit from culturally specific maternal health information, and this could be tied to receiving information about their basic rights (Howes, Guerra, & Zucker, 2007; McCourt, 2009a; McDade, 2008; Rob, Angela, Steve, Monique, & Nyovani, 2007).

The women showed clear understanding of good nutrition. But most foods they required were not always available and daily intake of fruits and fish are usually in limited supply. In the past decades the men fished regularly, so all the women and children had better protein intake; but currently, communal fishing, according to my observation, is less practised. Rosaleen was denied access to good food during her pregnancy until she collected ripe banana, pawpaw and pumpkin from her father’s garden. Women in Lomakunauru village have benefited from good health promotion advice in the last
two decades. Now they know how important it is to feed newborns with colostrum milk. Food taboos influence decisions about which foods to eat during pregnancy and nursing mothers in our village were restricted from eating certain food as explained earlier. These food taboos were passed down from past generations and accepted as norms.

**Transport**

We hear from Uraura that travelling back home with a newborn baby and a sick husband was fraught with unexpected adventures. The experience of Violet and the difficulty in transportation to access maternity services and a lack of medical intervention caused by her isolation could be repeated today. In other words, even though the experiences told by older women participants happened many years ago, the services have actually declined rather than improved (Homer et al., 2012; Mola, 2009). There is a need for mobile health delivery facilities not unlike those that had been taken for granted by rural communities in the 1980-90s. The problem is that the GoPNG may spend money on infrastructure like roads, schools, and basic health for a population thinly spread over rugged terrain (Gabrysch & Campbell, 2009; Punia, Jain, Punia, Vidya, & Kalhan, 2010).

**Health care setting: a dilapidated building**

Donnelly was vocal about the dilapidated health centre building where the sick and pregnant women are housed. Nursing mothers require separate room for themselves and their newborns. Other sick patients including children pose a high risk environment for neonatal infection to develop. Further, adequate rest is critical to rejuvenating the body after labour. Breast milk production and secretion of a nursing mother is influenced by peace of mind and rest (Rosenfield, Min, & Freedman, 2007).

**A good example of maternal health care**

It was interesting to observe a good example of child birthing practice and I refer to Uraura’s story. Her positive birthing experience occurred in the main urban hospitals in PNG that shows that even though there are limited resources, good care is still possible today.

**Could maternal health practice be improved?**

Malaria is endemic in PNG, so the protocol to give prophylaxis anti-malarial drugs to prevent malaria is essential to safeguard against premature labour. In addition to improving communication skills through improved educational preparation discussed earlier, it may be necessary to examine pre- and post natal assessments of women and respond with evidenced-based interventions. From Wendy’s story it is evident that she was exhausted and hungry from lack of food consumption for more than twenty four hours. Simple nursing care like offering push fluids to labouring women is a must to maintain hydration and energy in women during labour.
What do village women want?

It is clear that women desired gender-specific maternal care and family support from whilst in labour and birthing. The women did not actually say this, but I believe that the staff providing maternal health services were not competent to assist them during pregnancy and birthing. In listening to the stories of women, it was my observation that the provision of maternal health care delivery for women was uncoordinated and under-resourced. Again, the PNG /Newcastle women had identified minimal infrastructure as a major constraint for service delivery and promoting maternal health. The inadequate transport system and roads for reaching a facility on time to give birth were identified as major problems. These problems were embedded in the village context as women talked about the tyranny of distance.

PNG/Newcastle women also spoke about lack of maternal health information and education resources they had experienced. The village women also expressed their desire for maternal health knowledge in the same way, but wanted that to be offered by one of the health centre staff. The reason for this discrepancy between women may be the difference in educational levels and its related expectations. PNG/Newcastle women have had tertiary education and this may be congruent with their need for information. Village women had lower educational expectations and could learn by oral communication rather than through written information. Their reliance on current information had not been a feature of daily life especially in many rural villages of PNG. Lomakunauru is no exception. This was a difference in literacy levels that the PNG/Newcastle women had alerted me to consider amongst village women. Hence, I confirmed that storytelling was culturally appropriate at this village because of the lower literacy levels.

Once again it is stressed that PNG was unlikely to have adequate health services. This allegation has been confirmed through reports by international donor agencies (Chandy, 2009). I still believe that lack of resources in Lomakunauru and PNG at large should not deter village women from wanting to improve their situation.

I had invested in one of the main strengths of my research, an indigenous to the village. As an insider researcher I was familiar with the context and languages spoken. Yet, it was a privilege to delve into people’s lives, and listening to their stories caused me to be humble indeed, as I recognised the women’s strengths and resilience. Their stories show what it is like being pregnant, living and giving birth in the context of a rural PNG village. But stories of abuse and negligent care outraged me. I note that much ought to be done to improve maternal health. It is time now to ask women to come to the group and let them lead me to where they want to go to improve maternal health in this community.
Conclusion

This chapter has reflected the one to one interviews of Phase Two of this PAR study which occurred in Lomakunauru village. Ten women participated and told of their childbearing experiences. Some commonalities emerged from the stories of Donnelly, Uraura, Rosaleen, Christina, Wendy, Betty, Violet, Enderlyn, Maryanne and Lindy. The main constructs included: support or lack of support from mothers and the role of husbands; gender-specific care preference and ultimate trust in God. Faith in divine intervention and women’s resilience sustained women under difficult circumstances.

Many factors affect maternal health services provision as experienced by women and clearly identified in major constructs: staff negligence and abuse; being voiceless; and room for improvement in maternal care communication. Yet, another construct linked material from stories I believe are useful in understanding the social roles and domestic arrangements taken for granted in the village. I also discussed issues of family planning, educational and informational needs, gender-specific roles, and more about the human right to receive respectful and responsive maternal health care. Lomakunauru women who had an interview with me also had an opportunity to talk in the PAR group to set their own agenda for discussion and take action. This will be the subject of the next chapter.
Introduction

Phase Two of this study was done in Lomakunauru Village, PNG. My adaptation of Koch and Kralik’s 2006 methodology consists of two distinct stages: Stage one is storytelling (one-to-one interviews), feedback and construction of a storyline, was covered in Chapter Eight. Stage two was researching alongside participants in a group, guided by the principles of PAR and following the cyclical processes of ‘looking, thinking, and acting’ as an iterative process. I will restate that in this research there is collaboration with research participants, and:

- Participants determine the agenda
- Participants drive the research
- Participants decide on actions

The study’s objective was to build awareness about maternal mortality and to promote maternal health through utilising the PAR process alongside village women, and collaboratively decide on reform strategies. In this chapter I will discuss what happened in the PAR group meetings.

Time frame of Phase Two study

As discussed, I was in Lomakunauru village from November 2009 to July 2010. Christmas and New Year festivities delayed this study. There were also a few deaths in the village, so it would not have been respectful to commence the study as early as planned. One-to-one interview cycles took six months, leaving me with less than two months to facilitate groups toward sustainable actions in terms of reform. In my reading on the subject, Koch and Kralik (2006) suggested that at least ten PAR sessions were required, but preferably longer. I realised that I would not be able to achieve sustainable outcomes in this period of time. However, I needed to complete this PhD study in my AUSAID scholarship timeline, by June 2011. Eventually, I facilitated three sessions. Each group had a total of twelve direct contact hours, in addition to ongoing informal conversations throughout my time in the village.

Negotiating support for the study

Approval to conduct the study had been granted by various Ethics Committees as described earlier including the NIP administrator. In the effort to evaluate the power relations and identify people, structures and processes that might impede the study, I met with village leaders including the men to discuss the study. I was assured of his support for the study.

Learning from Phase One

The main constraint identified by Newcastle/PNG women was how to generate reforms with village women in the context of traditional patriarchal hierarchies. If women wanted change, would village
leaders allow maternal health reforms suggested by them? I had identified and I continued to meet with village leaders throughout the seven months in the village. I will report on the leaders’ involvement in the sections to follow.

The Newcastle/PNG women also spoke about lack of maternal health information and education they had experienced. I did not know whether village women would place need for information about pregnancy and birthing on their PAR group agenda for discussion, but I had researched materials for the content of an education package in preparation. I had researched materials on reproductive anatomy, information on sexually transmitted diseases (STDs), social aspects of sexual interaction and information on reproduction, family planning, pregnancy and birthing.

When I researched alongside Newcastle/PNG women, I was able to share the literature on MDGs and PNG’s high maternal mortality statistics. I realised that I could not be able to engage village women in the same way, so I had to think of alternative ways of attracting them to the group as these village women were less educated than the former group.

**Preparation**

First, I gave a friendly reminder to the ten individual participants that our meeting was about to take place. The local male leader was reminded, given that this is appropriate in the village hierarchy and that he had supported our meeting as a group.

Second, so as to create a welcoming environment for the first meeting, I arranged food and drinks. I requested my family members to help me prepare food and drinks (non-alcoholic) to share with participants during the meetings. As is customary, the family men caught the fish while the women baked and cooked some food. It was a delight to observe my family committing themselves to my study. Even though I did not request my study participants to assist with food and drink preparation, some also prepared a number of dishes and brought these to our meetings.

Third, my extended family also helped me to carry the equipment to the venue site. The evening before the date of the meeting, my late father and I carried some items to a relative’s house which was closer to the community building where the meetings were held. These included recording equipment, data projector and computer laptop, power extension cords, eating utensils and tablecloths. The distance is about a forty-five minute walk from the hamlet where I lived to the meeting venue.

**Venue for Participatory Action Research Groups**

The venue selected by the ten participants for the PAR meetings was in a Lomakunauru community building. Built in 1990s, this building has corrugated roofing iron and fibro walls. It has two floors, and PAR meetings were held on the ground floor because it had a large meeting room. The room had
metal chairs that were joined permanently, with seating for about thirty people. Louvre windows provided ventilation, but fly-screen wires were broken and needed replacing. Its location was in the vicinity of the local church building, and as this community observes SDA religion, most participants were familiar with this venue.

I hired a generator which belonged to a family whose house is near the community house. In that way, we were spared from carrying the family generator from home to the community house. The main reason I arranged for a generator to be made available is that I wanted to have a reliable source of electricity to show a film if necessary during the PAR group discussions. I needed to gather the group’s interest and believed I could do so by showing a video titled, Pita and Eli, about pregnancy and birthing in a typical Melanesian family and in PNG’s village context.

Recruitment of participants

I will summarise the two recruitment process. First, I involved five women leaders as third party agents to recruit potential participants. These invited potential participants for the research project. Second, I nailed three posters in the local church bulletin board, community house and the primary school notice board. The information was written in Tok Pisin, Mussau and English. When women signed the consent form agreeing to their involvement in one to one interviews, all of them also signed up for the PAR group meetings. These ten women constituted the core membership of the PAR groups. Recruitment was ongoing. I anticipated that all ten women would attend, but I was alerted by the third party agents that many more village women wanted to be part of the group meetings. There were more than thirty women who attended the first PAR group meeting. All women were over eighteen years of age, as required by the various Ethics Committees.

Participants attending were ordinary village women, mostly semi-illiterate, with an educational background similar to the original ten women. That is, averaging four to five years at primary school. A primary school teacher was present too and was the only educated person within the group. The participants hailed from the village and were single, single mothers, widows, and middle-aged married adults.

I did not expect so many women to attend this first PAR group. None of the men attended, but I heard later that a few had quizzed women about the meetings. Two men asked me if they could join the PAR meeting, but I kindly refused as I believed women would not be prepared to talk about pregnancy and birthing in a mixed gender group. However, the group wanted to keep men informed and onside so that any actions decided by them could be realized. It was agreed that the two of the women in the PAR group would represent them on the Village Planning Committee to keep village men informed about the meetings.
Factors that shaped women’s decision to attend Participatory Action Research Groups

I believe women who wanted to attend PAR groups were driven by a desire to improve maternal health. As discussed, I had placed posters advertising the project around the village and I talked with many villagers, but in this small community information was shared from mouth to mouth. It seemed that everyone had heard about it. In private conversations with village women, including the ten participants, I had heard that current health services available to women were deemed inadequate. Some women were incensed by the poor attitudes shown to them by health service staff. I heard complaints from some villagers about unprofessional conduct towards women. Therefore, many women disliked accessing these basic health care facilities but had no choice but to use them when they needed medical assistance. The women did not say this, but I believe that staff providing maternal health care were nurse-midwives and proficient or skilful to assist women during pregnancy and birthing. In listening to the stories of women, it was my observation that the provision of maternal health service delivery for women was under-resourced and lacked coordination. When asked why women were interested in joining the group, women claimed they felt powerless to make changes. Further, they did not have a voice in the community. Hence, this PAR methodology provided an opportunity for them to voice their concerns. In raising their voices, they hoped to get the local authorities to support them to initiate the reform suggested.

Facilitation

This PAR study was the first of its kind in this village and perhaps on Murat district. I was researching alongside women, listening to their stories and encouraging them to have a voice. In fact, during our first and subsequent PAR sessions, I emphasized that their contributions were important and all input would be valued. I supposed that as an educated woman they expected me to lead the discussion, but I re-emphasised that I was just a facilitator researching alongside them. As a facilitator, my intention was to assist them and encourage them to build on their existing capabilities and resources to make life better in their community. By doing this, I hoped that they would develop confidence, not only as individual participants who could speak up for their rights, but also as a group. My role in the PAR group was to facilitate the meetings. Participants were to set the agenda for discussion, and they would be asked to place their concerns on the agenda where we could discuss them.

I realized that the group was too big for all voices to be heard. Nevertheless, I fostered active participation in our discussion on local factors which they believed impacted on their health. I explained that as a group we could collaboratively propose actions towards an improvement of their health.
Setting the scene at the first Participatory Action Research group

Thirty participating women sat on metal chairs on three sides of the room, with a large, long table in the centre of this community facility. Sometimes women were in the doorway when all thirty chairs had been taken, and I noticed others sitting outside on the grass so that they could still hear what was happening inside. Before we commenced, two of my family members helped me to serve refreshments. Then I extended a formal greeting and specifically acknowledging their time and attendance, as well as their contribution towards promotion of maternal health, which I hoped would drive the agenda at subsequent group meetings.

I had decided to give the women some background about maternal mortality in PNG. I reminded woman that my desire to promote maternal health was rooted in the fact that a number of family members had died as a result of complications of pregnancy and labour. I argued that such deaths are largely preventable. Some participants were quite emotional and I too needed to compose myself. They said that they were pleased I had chosen to return to the village to research alongside them.

Although I had not intended to share the huge literature on maternal mortality and PNG’s statistics, I felt that I needed to set the political context. I told participants about the GoPNG’s alliance and its commitment to implement the millennium development goals, specifically the fifth MDG: to improve maternal health and reduce the maternal mortality rate by 2015, thus fulfilling the UN’s MDG global vision. I pointed out that I needed them to be actively involved in the PAR process by setting the agenda for us to discuss. This was obviously a strange thing to ask. I observed that their body language indicated that they were confused. They had come to the meeting expecting me to tell them about women’s health issues. I explained that I wanted to reverse the traditional top-down approach to the bottom-up approach, whereby grassroots people have a voice in the type of health care which suits their local circumstances and priorities. I explained that although I was educated I wanted to listen to their views about local issues that impact on their health. I reiterated my role as facilitator and said that their status was equal to mine, but that I was to guide our discussion as we explored local factors and strategies to improve their health. Everyone’s view was welcome, I commented and their views would be respected. At this point it was unclear whether or not they believed me. But I was prepared to display genuine regard towards equality and respect for them.

Ethical considerations during Participatory Action Research group meetings

As the number of women attending were more than expected, and I did not want to turn them away, I made the pragmatic decision not to obtain formal consent from all those attending. I had consent from the ten women who had shared their stories in one-to-one interviews. In my judgment, those women who arrived at the meetings meant their attendance was voluntary.
Maintaining confidentiality and protecting identity was important. As discussed with the Newcastle/PNG group, women had a choice to share their own story in the group, and they did so. I was reluctant to invite village women to share their short stories with the rest of this large PAR group. The main reason for making this decision was that some of the one to one individual interviewees would not feel comfortable to share their short stories with this larger group. I did not want any misunderstandings to flare up among former rivals and cause conflict during our PAR meeting if some women shared their stories. For example, Maryanne’s former fiancée’s aunts, who had, in the past, disputed her relationship with Greg also attended this meeting. Further, Maryanne had confided to me that since she and her Greg parted, the grudges between herself and the latter’s aunts had never been resolved. At the time of counselling, she specifically requested to have counselling with the local church pastor. I negotiated for this with the church pastor. But at the time of the first PAR meeting, Maryanne and the pastor had not had a counselling session yet. The minister delayed the meeting because he wanted to travel to Kavieng first. He would have a talk with Maryanne when he returned. Wendy’s story is another example that could not be disclosed because of its sensitive and ethical issues. I was reluctant to allow Maryanne and Wendy to share their stories. It was quite inappropriate, given unresolved grievances and abuse endured in the past. Being a local, I was aware that some women might dislike or complain about the short stories, or gossip to other villagers concerning this same matter.

Further, I had agreed to maintain confidence about each interviewee’s personal identity. I had protected every participant with a fictional name and obscured other important aspects of her life so her story would not signal its owner. But in this small community I could not promise that a person’s identity could not be disclosed. If the stories had been told in this public forum, there were risks for participants. Therefore, I decided to maintain such confidence rather than to compromise false names to the larger PAR group.

I was concerned that the health centre staff might learn the names of storytellers who had voiced their concerns about poor health care standards. As a result, women’s future health care might be jeopardised. Perhaps victimisation would not only affect them but also their families. The maligned staff of the health centre staff might also decide to find out the actual identity of the storyteller. Staff would need to quiz those attending the PAR group to find out. I did not want to reveal the names, real or fictional, as interviewees might encounter retribution such as being victimised as a health care recipient. This would be intolerable when this health centre service is really the only choice available to village people. I preferred to think of ways we could bring the health centre onside.

Before we started the meeting, I explained that it was vital that I recorded the discussion as I had done in the one-to-one interviews. Everyone agreed to this. Afterwards I did a transcription, using the ‘look, think, act’ (LTA) process as described in the Chapter Five. The women set the agenda and I
facilitated the discussion. I gave the group verbal feedback before starting the next PAR group session.

Setting group norms: rules made by participants

Setting norms or making the rules by which we conduct ourselves during the PAR meeting was a new concept to village women. I explained the purpose of setting norms just before the meeting commenced, and said three things. Firstly, the group norms would enable members to have a smooth group meeting. Secondly, the norms would provide guidance and direction for the facilitator and participants. Thirdly, it potentially enabled protection of the women’s identity and/or human rights, both within the PAR group and externally to the rest of the community. The following norms were suggested and approved by the PAR group members.

1. Start PAR group meetings on time. In PNG appointment times for meetings are rarely followed. Many people arrive late and waste time for other people. I had been wary about this matter when I went home, thinking that I would possibly waste time by waiting for late comers. I was relieved when the group suggested this norm. In fact, during our subsequent meetings, we honoured this norm and always started on time.

2. Maintain confidentiality of conversations. Any matters that were raised in the meeting should be kept within the group. Women were warned not to disclose sensitive and personal matters raised at these meetings to outsiders, including their husbands.

3. Only one person should be allowed to speak at a time.

4. Respect each other’s views.

5. Do not laugh at other people’s views.

6. Be polite when requesting to speak by raising one’s hand or saying, excuse me.’

7. Everyone should cooperate in implementing reform actions, as suggested by the PAR group.

When the group norms were agreed upon, I asked two volunteers to write these on two large pieces of butcher’s paper. These papers were hung on the wall inside the room and were visible to every woman. Throughout the meetings, I made a friendly reminder to some women who failed to comply with the norms. Sometimes, other women reminded each other to adhere to the group norms. The benefit of setting these rules upfront resulted in a safe and non-threatening environment for the meetings. All the meetings progressed smoothly.

Community members adhere to values

In addition to norms decided on by the women, this village had a set of values that participants wanted to be displayed alongside. These included respect for each other, especially for the elders and leaders,
and a willingness to work together towards a common goal, especially in community work. For instance, in the last decade, I observed the entire Lomakunauru community, inclusive of women and youths, working together to build a new permanent church building, one of the largest on Mussau Island. The same communal support was shown during events like marriages and funerals. In the spiritual realm, women share a common faith and belief that God is the Creator of life and source of blessings to mankind. Thus, villagers observe and worship God on Saturdays, namely Sabbath observance. Many women are semi-literate in speaking and writing English. As explained, most of the women can read simple Tok-Pisin. Likewise, most read and explained texts from the English Bible and other literature written in the Tok Pisin language. But that is the extent of their literacy.

Who would take a leadership role in the participatory action research group?

One of the PAR principles is that we are equals in the PAR group (Eruera, 2010). However, as a potential lobby group for reform, it was important to see whether female leaders would emerge to see these reforms through. To date most village women had not had any basic training in leadership and managerial roles. Despite this there were some who are current leaders in the community and the church and two were present in the PAR group. Meanwhile, I wondered whether leadership would emerge in this PAR group.

I focused on honouring the PAR principles and I was intrigued by the way in which my relationship with the women would emerge. One Saturday I was thrilled to see and talk with one of the women with whom I had studied in primary school. She had left school after completing grade six. She said, ‘I am shy to talk with you because I am nobody, just an ordinary village woman, a wife and mother. But you are educated and important person.’ I assured her that I was just like any other woman even though I had been educated. She was encouraged by my comments. Deep within me, her words reflected sentiment that others in the group may have felt also. It might take longer for women to find their own voice in this context.

Creating maternal mortality awareness during first PAR meeting

As it turned out, I created awareness about maternal mortality during the first meeting. In order to facilitate a group discussion, I was able to explain how women around the globe tend to suffer from pregnancy-related complications. Sadly, evidence shows that most pregnant women who have suffered and continue to suffer and die live in developing countries like PNG. I said that PNG had one of the highest MMRs in the world. I showed a large pictorial map of the world that showed different countries which have the highest or lowest MMRs. The next discussion briefly highlighted some direct and indirect causes of maternal death as well as five Ws in the lancet series of maternal survival. That is, who dies, where do they die, when do they die, why do they die, and what can be done to save women? After I finished talking, I invited women to talk about factors that were
associated with maternal mortality in the Lomakunauru village context. Most of them had not seriously considered that birthing safely was a human right. I encouraged them to express their views. It must be reiterated that this group had very minimal education and were not used to having a voice. The PAR group was still expecting me to take the lead in discussion, and I had to work out how to reverse this so that women could take the agenda where they wanted to go.

In order to facilitate a better group interaction and discussion with the group, I asked whether they wanted to see a video titled ‘Pita and Eli’, about a typical Melanesian couple from PNG. This video had been selected because it was produced in the PNG Tok Pisin language. It was highly appropriate in depicting difficult circumstances that women often confront in PNG. The video pointed out how low socio-economic status and lack of family planning led to frequent child bearing. This same video showed some dire circumstances that Eli had experienced in her life, especially during pregnancy, and her difficulty in accessing basic health services while in labour. This resulted in her premature death, leaving behind eight young motherless children. I observed how participant viewers grasped a deeper perspective of factors that were associated with maternal death. The story of Eli resonated somewhat with most participants’ lives. Every woman cried when they watched it. I knew that the video would generate emotional feelings, but I believed that this was a good way of raising awareness and generating discussion.

At last a lengthy discussion followed. We explored many complex factors that contribute to maternal deaths through direct and indirect causes. Based on the Lancet maternal survival series (Ronsmans & Graham, 2006), these questions were: who dies, where do they die, when do they die, why do they die, and what can be done to save women? Participants were keen to set the agenda.

**Participatory Action Research Group Discussion**

When women started to talk, conversations replicated the major constructs revealed during the one-to-one interviews. Obviously women felt safe and secure to discuss matters surrounding marital disharmony, and they provided further evidence for gender inequalities. As facilitator I frequently moved around the room and tried to ensure that all women who wanted to have a say were able to do so.

Women wanted to talk about the lack of family planning. It appeared that the inability to talk with one’s partner about childbearing was the main problem. In this all-female PAR group, the lack of communication and understanding between husbands and wives regarding family size, and when to have each child, was important subject matter. It was revealed that some unhappy women avoided antenatal clinics and health centre births because their husbands did not support their attendance. One woman said that her husband would not let her go to the antenatal clinic, and she confided that if she died during birthing, he would have to look after the other children himself, and that would be her
revenge. The group agreed that wives (their term) needed a husband’s support throughout pregnancy and childbirth. They stipulated that husbands needed to understand their responsibilities and give women their rights. Women realised that failure to attend an antenatal clinic could lead to fatal pregnancy-related complications.

On the other hand, the distance a woman had to walk or paddle from home to the antenatal clinic deterred some. The location of the health centre was several hours walk away, and demands made on them to work and care for their family made this distance problematic. Most pregnant women are not given the opportunity (right) to rest during pregnancy, before and after childbirth. It was suggested by the women that mobile maternal and child health clinics should be operated, and that these should be conducted by health workers to reach those who live farthest from the health centres.

It was also felt that sometimes staff members delivering maternal health services were disrespectful to women. They strongly supported the idea that maternal services should be gender-specific. It was agreed that male staffs were not welcome to provide antenatal or birthing care.

Nutrition was also discussed. Food consumption had changed from the traditional local garden foods like taro and fish to refined rice, sweets and coconut cream. It was believed that women on traditional diets were stronger and healthier.

The other item women placed on the agenda at this first meeting was lack of presence of village health volunteers. It was already lunch time by then, and we had been talking for three hours. We ate lunch at one o’clock and then continued our meeting. Women decried that there was a lack of basic midwifery training for local village midwives to offer support for pregnant women who give birth at home. We agreed to discuss this further at the next meeting. Before we closed our meeting, I asked women to set the agenda for the next meeting and agree on the time. I will discuss agenda items as they were raised by the group in subsequent PAR sessions.

The PAR group requested that I talk specifically about common pregnancy-related complications of obstetric emergencies and ways of managing these. It was understood that my role in this PAR group was not as an education provider, but as a researcher. Yet, it is important to consider that in community PAR, every researcher is expected to work out the specifics of their role in each context. As researchers, we generate valuable information, knowledge and data from participants. This is viewed as a means of reciprocity (Hughes & Yuan, 2005) to exchange knowledge and skills in an acceptable manner. These same authors add that failure to do so results in exploitation of participants and a continuation of intellectual colonialism, and this has been the case where the Western researchers extracted knowledge from third world co-research anticipants without fair compensation for them.
The women had been asked to set the agenda. Before I gave a session on these topics, I notified them that as a researcher I should invite an expert from the health sector (possibly from Kavieng) to provide education on topics they wanted to learn. But that would take a few months to negotiate and arrange for an ‘expert’ to join this PAR group. Moreover, neither of the staff at the health centre was a midwife nor could anyone of them speak the Mussau language. For these reasons, I accepted their request and asked which topics they wanted to know. They included (using my nursing language) severe antepartum and postpartum haemorrhage, prolapse cord, transverse and oblique lie and breech delivery. When I had finished taking, they appreciated the information gained from me. They were thankful that I explained the topics in our language, which made sense and was easier for them to understand. Below are two main agenda that women raised at the PAR meeting.

**Build a Local Health Centre**

It was not a surprise that women wanted the building of a local health post placed on the PAR group agenda. A decade ago, there was a proposed plan to build a health post in Lomakunauru village. A site was allocated by one of the village elders. The community cleared the land. Unfortunately, a land dispute and confrontation erupted between two male elders concerned. Therefore, the plan to build a clinic was abandoned. Aside from the land disputes, this proposal to build a community health post appeared not to be a high priority for village leaders for quite some time until now.

The PAR group wanted to revisit the proposal to build a health post, so that sick and pregnant mothers need not travel too far to receive basic medical treatment. They argued that long journeys could be avoided if a centre were built and accessible to local people.

At the second PAR meeting, women spoke passionately about the need to have accessible health care in the village. After in-depth facilitation and discussion of maternal health issues and factors to improve maternal health, the PAR group unanimously voted to have the clinic built. It was revealed the land for erecting the facility was in a prime area and accessible for most of the five hamlets in Lomakunauru. There are two most important architectural features women wanted to be incorporated in the building:

1. A separate room at this local health post where pregnant women could have rest prior to giving birth. In practical terms, this same room could be used for counselling newly married couples and first-time parents to prepare for parenthood responsibilities.

2. A private space where women could give birth to their babies to allow a family member/s present for holistic support.

I reminded the PAR group about their rights to privacy and dignity that were enshrined in these requests. I understood that women would prefer to give birth in their own homes but that space was inadequate and where there were many children around, prevented this ideal.
Of course there were many things to discuss when organising a local health post: adequate equipment, referral system to the health centre or tertiary care for women who might have complications, the ability for women whose pregnancies are normal to give birth at this centre, and so on. The planning and building of this health post would be the subject of ongoing conversations. It was also suggested that where possible, women with low risk pregnancies could give birth at this new facility under the supervision of the health worker and TBAs.

**Appointment of ten traditional birth attendants**

The PAR group agreed that more TBAs were required to assist the only existing TBA. The present TBA had undergone basic midwifery training more than a decade ago and she was older now. Participants wanted to have two female representatives each from the five hamlets. The rationale was that whenever an expectant woman needed help in the respective hamlet, the TBA would be called upon to assist. The PAR women recalled that in the past a small number of TBAs had practised in this village. When the pregnant woman was in labour, a messenger (usually the husband) walked to the home of the TBA to call for help. But with two practising TBAs living within the same hamlet, it was argued such coverage would save time and be more convenient. Most importantly, the TBAs would speak the same language. It was recalled that in the past, some pregnant women had given birth to their babies without any assistance because the TBA was unable to arrive in time to assist the birthing woman. This was the reason the appointment of ten TBAs was conceived by the PAR group.

The PAR group selected ten women from their group: five respected older women who were experienced in childbirth, and five younger women who could be mentored. These younger women were selected because of their personality and attributes like respect and honesty. But in order to implement their role effectively, it was considered vitally important for this group to undergo basic training in midwifery skills.

PAR women suggested that immediate negotiations should commence with the charge nurse of the health centre, to request for basic training support. The charge nurse, it was decided, could either facilitate training by herself or else seek support from the Family Health Services in Kavieng.

The group requested that the leader of the women’s group should negotiate training alongside with me. The PAR group’s leader had been decided upon. It was Maryanne, one of the individual interviewees.

Between the second and third PAR meetings, Maryanne and I approached the Pakasi health centre, Nurse in Charge. We notified her about the group’s request as well as the purpose and objectives of the PAR study. She was thrilled to hear about the study and the women’s proposed strategy, as mentioned above. Then she assured us that she would contact her superior in Kavieng and seek her
opinion. Meanwhile, she assured us that she would provide assistance for training with selected TBAs.

At the third PAR group meeting, the women and I were excited about these negotiations. We anticipated training for our new TBAs would be commenced soon. TBAs, it was envisaged, would be equipped to respond to a humble calling to provide holistic support for local pregnant women. In perspective, the PAR group envisaged a number of advantages by collaborating, as it were, with the staff nurse of the health centre. The staff nurse was from Lomakunauru but she had been born elsewhere in PNG so she partially knew the language and was likely to overcome language barriers by offering simple explanations in the local language. This was critical to foster a better understanding of the knowledge and skills that TBAs need.

Next, it was hoped that such understanding would enable her to strengthen many traditional and non-harmful birthing practices, while the harmful practices would be discarded. The PAR women offered the staff nurse, and/or the Kavieng nurse who might be involved, free accommodation and food in the village.

**Learning to be decision-makers**

The agreement of the health centre health staff to work alongside local rural communities was an important achievement. The PAR group did their homework and then requested facilitation of midwifery training from the health staff. This is a bottom-up process that contrasts with the traditional top-down approach. The former is unique as it allows women to voice their concerns to significant leaders, to be heard and supported at all levels of the community. This reflects the PAR principles upheld in this study.

Women decided to have a women’s committee, so the ten-member TBA group automatically formed the committee. It was agreed that the leader and the assistant would represent or speak up for women’s issues in the male-dominated village committees. One such committee that women wanted to become members of was the new health post working committee. At the time, the PAR group was merely thinking out loud and hoped that they could be involved in making and shaping decisions concerning the running of the local health centre.

Finally, I made it clear to the women that while it was important to have practicing TBAs, it was equally important to consider an establishment of an effective functional referral system, which would allow collaboration with the village TBAs, health worker and the staff of the health Centre. In the meantime, the training of TBAs could be commenced even before a new local health centre was built.
How actions were to be implemented

After we had concluded the three PAR meetings, I managed to meet with a small group of village women and the ten appointed TBAs. Women thanked me with a special speech and gave me a gift comprising of traditional woven mats. I spent time with this group because I wanted to explain the training program that the leader and I had negotiated with the staff member from the health Centre. I communicated that negotiations were still underway between senior staff at the health centre that were willing to assist in the TBAs’ training, and the Family Health Service in Kavieng. The officer was to consult the Family Health Services in Kavieng immediately, to notify them about the women’s request, and it was hoped that basic training would commence straight away. Lack of finance should not deter the program because the staff who agreed to provide the education was a local woman. It was promised that this person providing the training could live and eat with village women who were receiving the TBA course. Other health topics incorporated in the training program would be based on women’s choices and voices, such as family planning. A date for the training program was to be ascertained.

My next task was to consult with village leaders. After a brief introduction regarding the study, its objectives and my rendition of women’s voices during the participatory process, the plan to build a local health post was put forward. Regarding the ‘resting room’, one male leader raised a concern. He said he was not convinced that husbands would allow their wives to rest prior to giving birth. He alleged that some husbands expected their pregnant wives to continue working for their families and until they gave birth. I could see that the building of the local health post might be easier to organise than changing the attitudes men had toward women.

To date, the village leaders have started working on the project and have purchased corrugated roofing iron and nails for the new building. We have established a working committee for the new health post, with membership of key local members. A funding application has been sent to the government for external support for Lomakunauru, in particular for basic medical equipment, drugs and delivery kits for the new health post.

Researcher reflections

I had practised facilitating groups in Phase One and well prepared to conduct these PAR group meetings. However, this group was much larger than I had envisaged.

Nevertheless, I encouraged the members to talk openly about matters that were important to them. I invited research participants to speak and allowed them to involve actively rather than being passive. In other words, participants could have sat in silence and just listened to the facilitator, but here, I wanted them to contribute ideas, to share their views towards health improvement actions. After all it
is the women’s voice that the researcher wanted amplified. I made sure that the women who asked questions were satisfied with the response that was given either by me or other women. In this way, feedback and evaluation of the process were done concurrently.

**Group dynamics**

My personal observation was that this group had the potential to work as a team and to achieve the actions they proposed. The women displayed sincerity and respect throughout the meetings. In this small community where rivalries abound, it may have been challenging to overlook the faults of others. Instead they capitalized on their strengths as they focused on ways to improve maternal health in their village.

The group engaged with each other and they shared their concerns. I observed participants when they were in two discussion groups and noted how they mingled with each other. I admired them for doing this. One of the positive aspects was that older women took a mentorship role as they shared their experiences and insights with younger women during the group discussions. These older women helped to cement the group process. These older women had more influence in the village, and I suspected that they would have a stronger voice in village matters toward introducing change.

It was interesting to see all the participants either contributing to the discussion or paying close attention to others who spoke. They observed group norms as closely as possible. The meeting atmosphere was conducive. It was relaxed without any threat of power, dominance, control or conflict throughout the sessions. Elders spoke about past experiences and then related these to vital aspects of good childbearing practice. Younger women listened and often made comments pertaining to practical means of acquiring better health for them. Hence, I also showed respect to everyone in the group and demonstrated equality and democracy in our discussion.

Regardless, awareness of maternal mortality has been created, and resultant action, whatever the outcomes, will surely improve maternal health in this village. It was envisaged that a major outcome of Phase Two would be to influence decision-makers in relation to reforms needed to improve maternal health in PNG. This is still pending or yet to be achieved.

**Ways to convey women’s voices to villages of Mussau and wider PNG**

Networking with local leaders of Lomakunauru Village Planning Committee and Murat Local Level Government officers is most important to the promotion of this community development project. The women’s group leader was eager to achieve those actions being proposed above to improve the health of the village women. Following the PAR meetings, she had a better understanding of the notion that ‘Improving women’s health can lead to healthy children and healthy adults. These can contribute towards nation building.’ She believed in the abilities of local leaders and elders, especially the
chairperson of the Lomakunauru Village Planning Committee, to collaborate with everyone to give women the support due to them. It was envisaged that when the health post is completed and operating efficiently, people from nearby villages in the Murat region are likely to be drawn to such an approach in their own communities. For the rest of the country, other means of communicating women’s voices would be useful. Storytelling is a powerful tool to communicate, particularly if it is followed by a wide-ranging, informative discussion.

Conclusion

The summary of the chapter reiterates the study’s objective for the Phase Two study. I achieved this collaboratively with the PAR group by creating awareness of maternal mortality and promotion of maternal health, through utilising the participative process alongside village women. The group collaboratively decided on reform strategies. This chapter highlighted events that took prominence during the PAR group meetings. The venue was at the Lomakunauru community building. Thirty participating women demonstrated sincerity and respect as they interacted with each other. One of the PAR principles we embraced was equality in the PAR group. That was achieved which fostered a conducive meeting for us. However, as a potential lobby group for reform, it was important to see whether female leaders would emerge to see these reforms through. The recognition of need for health centre staff to work alongside local rural communities was an important achievement. My task was to consult with village leader to give rendition of women’s voices during the participatory process, the plan to build a health post in order to be supported.

I have alluded to some common background about maternal health in PNG and the GoPNG’s alliance and its commitment to implement the millennium goals specifically the fifth MDG: improve maternal health and reduce the maternal mortality rate by 2015, in fulfilment of the UN’s MDG global vision. The leaders are working out plans for the new building. My personal view was that the PAR group had the potential to work as a team and to achieve the actions they proposed. Regardless, awareness has been created, and resultant action, whatever the outcomes, will surely improve maternal health in this village. Networking with local leaders of Lomakunauru Village Planning Committee and Murat LLG officers is most important to the advancement of this community development project. The next chapter highlights the discussion of the common themes arising from the one-to-one interviews and PAR group meetings.
Chapter Ten: Discussion
Introduction

My research question was to explore ways ‘we’ could improve maternal health. ‘We’ in this sense means the researcher and the participants. The stories told by participant women are a reminder that rural PNG village life is without clean running water, sewerage, electricity and, apart from the radio, communication. Working collaboratively in the village gardens and having enough to eat are enduring concerns. Malaria is still the main cause of death in this village and many other rural villages in PNG (Australian Government, 2008a). Improving maternal health is one of many concerns waiting to be addressed. The Alma Ata Declaration in the 1970s expounded its goal to build community capacity to enable sustainable health and wellbeing, and there are many aspects of living in a rural village that require community participation to foster potential changes. Following Alma Ata guidelines, community capacity building is based on the fundamental core values of equity, community participation and self-determination, which embody human rights and shared social expectations. This study is perhaps one of the first in PNG where a researcher walks alongside villagers and invites their participation in the health programs that affect them.

The research question was, ‘What can be done to improve maternal health in PNG?’

As discussed in Chapter Three, this study was guided by the principles of Primary Health Care and PAR. My aim has been to work toward greater participation in health care so that people may contribute their ideas, plan and partake in effective action towards an improvement of maternal health. It was also discussed in Chapter Four that my philosophy is grounded in values of democracy, equal opportunities, and education as personal development. PAR can mobilize strategies aimed at reducing maternal mortality because it can draw on the collective capacity in communities to solve problems (Bhutta et al., 2008; Manandhar et al., 2004). Mobilizing village women in this study raised awareness and expectations, and promoted human rights alongside improving maternal health.

In the literature I found that more than 50% of maternal deaths were in the Sub-Saharan Africa, India, Nigeria, Pakistan, Afghanistan, Ethiopia and the Democratic Republic of Congo (Bates, Chapotera, McKew, & Van Den Broek, 2008; Berer, 2007; Cross, Bell, & Graham, 2010). PNG has the highest MMR in Oceania (Mola, 2009; Sangai, de COSTA, & Mola, 2010). I argue that maternal death is preventable, and I have viewed success stories in the literature as mentioned in Chapter Three, showing where the maternal mortality rate has been reduced. In sum, considerable literature on maternal deaths focus on acute medical interventions, and is directed at woman’s labour, birthing, and the immediate postpartum period. Limitation of literature which focuses on associated factors that affect lives of women who give birth in remote and rural locations. Women’s voices are rarely heard in that literature. Yet, these are the places where most women die in childbirth (Abdullah, Ibrahim, & King, 2010; Furuta & Salway, 2006). The literature suggest five main strategies to improve maternal
health: antenatal care, family planning, skilled care, respectful care and trained TBAs, and these are discussed at length in Chapter Three.

**Antenatal care**

Antenatal care has improved maternal health outcomes. Included in antenatal care is prevention and treatment of malaria, which have been shown to make a huge difference to the outcomes of safe birthing events (Akinleye, Falade, & Ajayi, 2009) in rural South West Nigeria. There is clear evidence that the main progress toward the fifth MDG can be realised when women have access to antenatal care which aligns with the Primary Health Care principles, including cultural sensitivity, accessibility and affordability (Anya, Hydara, & Jaiteh, 2008; Countdown Coverage Writing Group, 2008; Rockers, Wilson, Mbaruku, & Kruk, 2009). Thus, attending antenatal services may make a difference and facilitate progress towards MDG5 (Low et al., 2005; Zanconato, Msolomba, Guarenti, & Franchi, 2006).

**Family Planning**

Family Planning Programs have been identified is a strategy to improve maternal health. Goldie et al. (2010) write that early intensive efforts to improve family planning, control of fertility choices and provision of safe abortion, have been shown to improve maternal health. If applied throughout the country, they could save millions of lives. In addition, these authors argue that billions of dollars would be saved by ‘coupling safe abortion to family planning efforts; and with stepwise investments to improve access to pregnancy-related health services (Fotso, Ezeh, Madise, Ziraba, & Ogollah, 2009; Freedman et al., 2007) and to high-quality facility-based intrapartum care. In doing so, more than 75% of maternal deaths could be avoided.

**Skilled birth attendant**

There is overwhelming support and evidence for skilled care attendants as an intervention (Ahmed & Jakaria, 2009). As pointed out, skilled birth attendants are usually midwives who possess midwifery proficiency skills. In this decade, the PNG NDoH introduced a pragmatic strategy by which one trained midwife would work in each rural health centre throughout PNG. This strategy is ideal but in reality, nothing has changed. Many health centres continue to operate without skilled or semi-skilled birth attendants like nurses and community health workers (Kruske, 2006) are assisting pregnant and birthing women. In the cases where a woman’s condition is uneventful, and she has a normal birth, this is acceptable. But when women develop life-threatening complications, midwives skills are critical to address such problems. If, however, the complication is beyond a midwife’s professional capacity, then referral is inevitable to a nearest hospital. This is often the case with high risk women whose pregnancy-related complications need, for instance, caesarean surgery to save the lives of a
woman and her unborn baby (Iyengar & Iyengar, 2009; Pembe et al., 2009; Rath et al., 2007). Referral in many countries, however, is either delayed or avoided because of various factors. Some of these are beyond the control of women themselves. Examples include limited infrastructure including trucks, planes or boats, husbands’ decision to stay home, financial constraints to enable transportation of women in a timely manner to a health facility (Weeks, Lavender, Nazziwa, & Mirembe, 2005).

In this study, data shows that a majority of participants interviewed individually had accessed skilled birth assistance from health centre and hospital staff. It is clear that these women wanted to receive appropriate maternal services from the staff. Unfortunately, as noted in Chapter Nine, only three of the women experienced positive birthing outcomes. All the rest had horrendous birthing experiences, which is unacceptable to them. It was not uncommon for women who had been subjected to negligence and abuse from staff in the health care facility to refuse to spend any more of their resources, like time and energy, to seek health care from those uncaring healthcare staff. According to Dietsch (2010),

The women set their own agenda, as mentioned earlier. During the PAR group discussion, these same women and other village women, as shown in Chapter Nine, unanimously advocated locally trained TBAs. These were expected to offer care to pregnant and birthing women in the village. Subsequently, those women who had had a negative experience opted for TBAs because this group practise holistic care, including respect for women as well as communicated in the same language and are knowledgeable about local norms pertaining to safer traditional birthing techniques in the village. This matter raises the issue of oppression among minority or disadvantaged groups.

**Oppression of pregnant women by healthcare staff**

Violence and oppression against women is a chronic problem and has many facets. Violence refers to forms of inhumane treatment which encompasses physical, economic, social, spiritual, and psychological abuse. In the past decade, the WHO recognised the need to address violence against women. But this cannot be met adequately unless there is sound data being produced through research. This claim was made in 1996 and 1998 during the world conference on ‘Violence Against Women’ in Beijing, by world experts. There are five areas that the WHO focuses on in responding to violence. The fifth is advocacy, to be expressed both internally and externally, to incorporate in health programs concerns about violence against women. In PNG, there are offences committed against women which have been rarely studied and documented through research (Hinton & Earnest, 2010b). The stories of women in Chapters Six and Nine reveal profound forms of oppression encountered during childbearing at the healthcare facilities. The oppression and abuse occurred especially when these women were in labour and giving birth. The term oppression is applied when a person is subjected to unfair forms of treatment by another person or groups (Abirafeh, 2009). Although it can
be alleged that in other cultures women are exposed to varying forms of oppression, they might not have suffered as much as the village women in this study.

The international Human Rights Declaration clearly states, ‘All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood … Motherhood is entitled to special care and assistance. All children, whether born in or out of wedlock shall enjoy the same social protection (Reynolds, Wong, & Tucker, 2006). Despite attempts to convey and apply these laws in this context, the women who seek health service are denied the right to have equal, fair and respectful treatment from the health centre and hospital institution. (Ribeiro et al., 2009) concludes that two basic fundamental rights enshrined in the rights declaration are equality and human dignity. Yet some of the health centre and hospital staff do not conform to such laws, and they abuse women of reproductive age who need proper health care services. These women need to have safe, equal care from the healthcare service providers without fear of threat and oppression. The primary health care principles stress this, as discussed in Chapter Two as well as in participatory action research.

PNG might seriously consider skilled birth attendants as a strategy to improve health of women in order to avert high MMRs. This is by far the best and most successful intervention in developed countries. In the PNG context, a number of factors should be considered before offering training for midwifery students to become trained skilled attendants, a challenge that is yet to be fulfilled. These are trainers or lecturers, clinical supervisors and mentors, curriculum, length of years of training, and student eligibility criteria. Training the best students to acquire midwifery proficiency will be most beneficial to improving the health of women in PNG. Just like in Sweden (Larsson, Aldegarmann, & Aarts, 2009) more students should be trained. At least thirty per year across three universities will boost the human resource capacity for hospitals and health centres in the country. Trainers should include obstetricians, statisticians, researchers, and public health experts, to give a well-rounded program to students. The curriculum should also include PNG’s diverse traditional and cultural birthing practices that are beneficial to women. For example, students could learn about local herbal medicines that can provide relief for or arrest haemorrhage in women.

All skilled birthing staff need sufficient training programs that will provide not only basic midwifery skills but skills in professional and ethical conduct in health care (Carr & Riesco, 2007; Cragin, DeMaria, Campero, & Walker, 2007). Without good foundational theory, many skilled birth attendants will not respect or be dedicated in their role of improving maternal health of women. Otherwise, as portrayed in the women’s stories, these would be ill-prepared to offer intrapartum care to women whose ultimate goal is to have better pregnancy outcomes. PNG training institutions require a midwifery teaching curriculum which trains students in the right knowledge, skills and attitudes, in order to give women better opportunities to survive pregnancy-related complications.
Policy on midwifery training and midwifery standards of care should be established collectively with women users across a wide range of settings, both rural and urban. Governance in all health institutions ought to comply with the policy’s regulation, registration and accreditation requirements. Failure to adhere should result in the contract for services being terminated.

**Trained traditional birth attendants**

I wanted to know why trained traditional attendants were perceived as the answer to reduce maternal mortality in the 1970s; even the Safe Motherhood campaign placed this item as a high priority on their list of strategies. When I reviewed the literature for Chapter Three, I found that there were twenty-one papers describing the role of TBAs. I performed another Google Advanced Scholar search asking for ‘evaluation of TBAs’. Interestingly, I found that very few TBA programs had been evaluated. Greenwood, Bradley et al. in 1990 evaluated a Primary Health Care program in The Gambia by exploring the impact of TBAs on the outcome of pregnancy. Training of a TBA was done for each village with a population of 400 or greater, as part of the Primary Health Care Program. In Primary Health Care villages 65% of women were assisted at delivery by a trained TBA during the post-implementation period. Both maternal and neonatal death rates fell in Primary Health Care villages post implementation, declining to about half the levels recorded before the study commenced. Other factors, such as improvements in transport, may also have contributed.

A major consultation of the TBA as a resource in developing countries was held in Geneva in 1973, followed by meetings in Manilla 1974 and Mexico 1979. The WHO on was committed to the training of TBAs and deployment as a means of extending the reach of limited health services, and to make the best use of this available resource in developing countries. The argument for deployment of TBAs came when there was the realisation that hospitals were not available to most women. Since that date, WHO activities have included the supervision of TBAs, laws and policies affecting them. Further, the production and distribution of teaching packages, the sponsorship of evaluation studies and the publication of several reports have been carried out. However, it took time for TBAs to be an integral part of national health strategies, even in countries where they attended the majority of births. India, Bangladesh and Indonesia were important exceptions. These countries placed a TBA in every village.

Poor maternal health is often caused by other external factors which are not directly manifested as health problems. For example, women’s subservience to husbands who control and devalue their work cannot be resolved overnight through medical interventions. I am aware that poverty and illiteracy are associated with poorer health status of populations. Most women have greater economic responsibility and household responsibility in PNG. One social condition amongst women is overwork, and this has been revealed in the stories told by participants.
Most TBA programs were built on improving indigenous practices or changing those considered harmful. The WHO stressed that it was important to learn the views of the TBAs and to unpack local knowledge. The early reports identified TBAs’ problems as old age, illiteracy, and traditionalism (referring to the myths associated with birthing such use of some herbs, sweat baths, the vertical delivery position and massage). However, not evaluated were the modern medical system versus traditional systems, training program, the attitudes of personnel employed, the teaching methods employed and the lack of back-up services, and TBA supervision. The TBAs skills have and can save lives of women were skilled birth attendant are lacking or insufficient.

**What is the link to this idea?**

Maternal health literacy was evaluated through the community-based antenatal care in a community in Paraguay (Ohnishi, Nakamura, & Takano, 2005). The authors examined factors that influenced the improvement of maternal health literacy among pregnant women. These led to an antenatal care program to meet the needs of those who are functionally illiterate in the standard language of the country. In this report WHO authors summarise the benefits of TBAs. They observed that the relationship between the TBA and the mother was personal, informal, supportive, and holistic, compared with the depersonalised, formal, biomedical approach exemplified in hospital births. Promoted is that traditional child birthing is family-centred rather than medical practitioner-oriented. Most importantly the woman at home is supported by her family and relatives. Women’s kinsfolk provide emotional as well as physical support. The birthing experience is seen not only as biological, but as social and spiritual. In order to develop an appropriate effective and acceptable program for the training of TBA, and to improve MCH programs, it is necessary to understand the relationship of traditional birth practices and beliefs as well as the role of the indigenous TBA.

I respect the ideas village women presented about the need for TBAs. This group will need ongoing facilitation to achieve this maternal health project. The TBA program, as I envisage it, will be successful because the agenda is driven by the participants who take ownership of the project. As reported already, ten women volunteered to undergo training for basic midwifery skills. In the scheme of things, and owing to the evaluation process, it is likely that one trained TBA can serve a population of 300 to 400 villagers. The TBAs will need incentives to implement their roles effectively. Such should include an allowance paid by the Government of PNG through the district health services.

The literature on TBAs is encouraging, as depicted in Chapter Three, because this group played a role in improving maternal health in many developing countries around the globe. These countries have similar circumstances to PNG’s, a motivation to believe that the same strategy, if advocated and supported well, can make a difference in the lives of women of PNG.
It just takes proper training, evaluation, and a proper referral system in the villages to ensure TBAs refer complicated cases to the health centre to be managed (Chen et al., 2010; D’Ambruoso et al., 2008; Homer et al., 2012; Olusanya, Inem, & Abosede, 2011; Ronsmans & Graham, 2006).

**The Newcastle-PNG PAR group**

It is important to review what women have said in Phase One of the study. The Newcastle-PNG women were horrified that PNG had such a high MMR, and that the plight of women dying in childbirth was ‘off the radar screen’. They asked why there was so little media interest. Ways in which ‘we’ (participants and researchers) could draw attention to their plight was therefore the main concern. The women set the agenda for discussion and decided collaboratively about the actions that could be taken to reduce maternal mortality in PNG. The PAR group reached consensus that better education on pregnancy and childbirth should be available to PNG girls and women of all ages. Participants believed that when PNG women are educated and learn relevant, factual information, they will make rational decisions about their reproductive and sexual health. They believed that pregnancy in early adolescence is quite a common occurrence in villages, but that there was an absence of sexual, reproductive- type education in families or at school. Contraceptives are available but often rejected, as superstitions about family planning still influence illiterate populations in rural villages (Almany et al., 2010; Chandy, 2009; Hinton & Earnest, 2010a). An education strategy would overcome some of these superstitions. PNG women required information about nutrition, hygiene, and understanding of cultural childbearing practices in PNG (Mola, 2009). The PAR group spent some time considering the content of an education package that they believed was essential in pregnancy and birthing information for all PNG girls and women. This information should incorporate maternal health topics which women identify for themselves. They suggested that the researcher conduct a health need-analysis for women’s level of understanding and literacy, and then argue for training accordingly.

The Newcastle/PNG PAR group subsequently developed a Google Blog page: Promoting maternal health in PNG. In other words, the PAR group participants have decided to support me for the duration of the study. When this study is completed in late 2013 ‘we’ (PhD candidate, supervisors and participant women) will invite decision-makers from global, PNG governments and locals to join the discussion blog. We will share the ‘findings’, of the women’s stories, and so stimulate action to enhance political will and policy. It is envisioned that the blog will act as a social activist network for promoting maternal health.

**Revisiting Lomakunau village**

I have described Lomakunau village in great detail because maternal health promotion interventions will not succeed unless the context is understood and the voices of its people are heard. A map of
PNG, NIP, Mussau Island and the village, Lomakunauru, shows that Murat district is one of the most remote and rural parts of PNG, therefore needing extraordinary measures to help women improve their health. I believe it was equally important to describe the village, its inhabitants, their social activities and the daily activities of the village women and men. I also explored education and the opportunities for learning in the village. I explained what the government provides in terms of resources, and the material lives of villagers. I emphasised the lack of communication technology. I briefly explored PNG 'time’ because this has implications for the speed at which any interventions may take hold. On the topic of government services, I suspect that a ‘free handout mentality’ reigns but with greater community approaches, such attitude might change as villagers take full responsibility in working for and taking ownership of projects that they sustain. I wanted to highlight power relations, gender-inequality, and leadership in Lomakunauru at the LLG. Law and order in the village and the central role of Christianity in Lomakunauru village were discussed. I reviewed the local health services and found them lacking. Noted were public health issues, like sanitation and water supply. Economic issues, microcredit and income generation projects were discussed. Making gardens, food gathering and cooking food are still the main preoccupations.

I wrote briefly about fishing and the need to re-establish this ‘industry’, so that the villagers have ample protein in their diet. It was important to mention the use of community land and the conflicts associated with land tenure. Social structures such as the institution of marriage are described. The lack of transport to seek external help is one of the key problems identified by villagers.

Ten village women told their pregnancy and birthing stories. Deficiencies in maternal health care provision were experienced by women. Several women, Donnelly, Christina, Rosaleen and Wendy, described their care provided by health care delivery staff as negligent or even abusive. Health care professionals carried out their tasks without consulting women: women were voiceless. No one listened to women while birthing, even when their expertise in pregnancy and birthing was extensive. Health service staff were negligent and abusive. Identified was room for improvement in maternal care and communication.

Presented were the taken-for-granted social roles and domestic arrangements in the village that had an impact on pregnancy and birthing. For example, the women continuous work was often hard labour. I referred to chores that are part of every woman’s daily life, and how those family and relatives living with her might have to assist. Yet, often, those living with the women are her children, and although several participating women were widowed or separated, most had husbands. Extended families may congregate often for meals and companionship.

One of the commonalities shared by the women was their desire to have a family member for support during labour and birthing. However, for most women this did not happen. Labour and birthing for the other women was unsupported; it was a solitary business. Mary delivered her newborn unaided and
she cut her own umbilical cord. Two women had stillbirths and they gave an account of the support they received. Distance to the nearest facility where birthing could take place was often a major problem, and living far away from family and home made it impossible to have family at their side. The person who was most likely to provide support was a female relative. However, some would select their husband to be present at the birth of their baby. And while there are some husbands who might like to witness and support their wife’s labour, a major obstacle is lack of space and privacy in the labour ward.

Gender-specific care is a cultural imperative but as indicated, many contributing factors influence such notion especially in some indigenous cultures (Merrett-Balkos, 1998; Moore & Riley, 2010). Maryanne, Donnelly and Rosaleen stated openly that they preferred women to take care of women during pregnancy and birthing. They preferred only female staff to provide maternity care. A gender-specific or same-sex health care provider was seen as safer and less threatening (Bhuiya, Hanifi, & Mahmood, 2008; Chamberlain et al., 2006; Jacob et al., 2006). It is clear that abortion is not condoned as an acceptable practice to reduce maternal mortality. Unsafe abortion attempts were not only illegal but also against women’s strong religious faith. Thus, young girls and women need specific information on the dangers of unsafe sex, teen pregnancies or the advice to abstain from sexual intimacy until marriage (Herrman, 2008).

Overall, it is suggested that staff providing maternal health care were not educationally prepared for pregnancy and birthing. Part of educational preparation should be communication skills, which would include being civil to clients, providing information, listening to their voices, acknowledging spiritual needs, ensuring family support is available if possible, acknowledging expertise of women when they had children previously, and working in partnerships with this group towards good birthing outcomes.

Another norm observed is that women chose to avoid discussion of family planning (Pataki-Schweizer, 1996; Utomo, Arsyad, & Hasmi, 2006), unless the plan had gone awry, as described earlier by Enderlyn, Rosaleen and Betty. I asked Lindy, a multigravida how she perceived family planning but her response was vague. Only two women had mentioned family planning and/or contraception.

Most women had primary school education with an average four years of schooling. Wendy confided that she had hoped for further education but her parents could not support her. I suggest that while these women were clever, despite a lack of formal educational opportunity, questioning or even knowing about their human rights was unknown to all the women. Women’s movements, such as the White Ribbon Alliance, have found many ways to reach and speak with women through their local communities (White Ribbon Alliance, 2010). And I used that to explore these similarities in this village.
Transport or the lack of it, to refer women safely across the terrain or water to give birth to their child was one of the prime concerns. Women prefer a return to mobile MCH service which was abolished in the 1990s. The transport situation has worsened today than it was a decade ago (World Bank, 2010).

**Practical Safe Motherhood Issues**

Reconsidering the above ‘findings’, which describe the women’s experiences in pregnancy and childbirth, I turn to practice issues from my perspective. They are Safe Motherhood as briefly discussed below:

- An ideal antenatal care program
- Antenatal care
- Intrapartum and postpartum care
- Good practice: positive outcomes of pregnancy and birthing

**Safe Motherhood: an ideal antenatal care program**

The Safe Motherhood program, as discussed in Chapter Three, entails a number of reproductive health services that are aimed at improving health of childbearing women, especially in poor-resourced countries like PNG. This section shows a discussion of a number of practice issues which the fourteen participants (includes Phase One and Two) experienced. It is important to give a clear description of an antenatal service before taking up a few examples of practice issues that are viewed as substandard care from the data findings. A comprehensive antenatal care was discussed in Chapter Three. Continuity of maternity services begins at this time (Carolan & Hodnett, 2007; Smith, Dixon, & Page, 2009), and ideally the same health care professional who offers antenatal care to the woman could also offer birthing and postpartum care for several weeks.

**Practice issues: Antenatal care**

Twelve women in this study attended antenatal care. Two did not because they resided in a most remote area, where access to MCH clinics was impossible. Most women had less than four antenatal visits. This was a common practice among the group. There are likely serious repercussions for delaying their first visit or avoiding such services altogether (Mola, 2009). The women knew that antenatal care was an essential aspect of their care during pregnancy. Yet many waited until the second or third trimester of pregnancy before they attended the first antenatal care. When gently asked for the reason for the delay, the women made a number of important points. Staff did not respect them, even though they were first-time mothers who needed factual information. All the women travelled for hours by walking or paddling to reach the antenatal clinic at the health centre.
Some left very early in the mornings, without breakfast, to avoid being late for the antenatal care session. Despite that, health staff spent a mere ten to fifteen minutes with each woman, doing routine checks. Further, there is limited time to thoroughly discuss important information with individual women about concerns and problems, or give an assurance that all is going well for herself and the unborn baby. The time spent was very short that women felt that it was not worth taking the trip to the antenatal clinic. This problem could have been different in yesteryear, when mobile MCH were conducted in all the remote villages. The staff spent sufficient time with women for a couple of days in each village. This allowed an ideal opportunity to interact with village women and their families as well. This opportunity was vital to get to know the woman and her family better, and assist her in specific matters that she was concerned with. Uraura said that she lived on the island of Wokio, which was further away, but the MCH nurses from Wewak travelled to Wokio Island to conduct MCH services.

Other ideal services have included women support groups and counselling. Specific antenatal and postnatal exercise classes were not mentioned by women. As an ideal antenatal care program, the opportunity is opened for MCH staff to discuss vital issues with women about health promotion, education, communication and nutrition and perhaps physical exercises. Others include topics on contraception, care of the newborn, personal hygiene, coitus during pregnancy and resuming sex postnatal were good topics to discuss with the women at the village setting. Albeit this might seem trivial to readers, it should be recognised that village participants wanted to confirm if having coitus during pregnancy was safe. According to them, the old women’s tale concurred that seminal fluid can damage the eyes of the baby in utero, causing blindness. Such myths ought to be replaced with facts to allay anxiety and are a cause of extramarital infidelity amongst some men (Holly, 2007). Certain benefits of discussing these topics are possible, however in the village setting when the women feel comfortable in their own environment, and may confide in sexual and reproductive matters that they would not otherwise, discuss at health facilities with health staff who may not only fail to provide sufficient time and privacy but more so if these are men.

On the hand, in the past decades many PNG communities, including Mussau had hausman (a house belonging to men only). The husbands spent time away from the pregnant wife or nursing mother, and until the couple’s toddler was able to walk. Then he returned to the family home. While this was a respected traditional practice then it was also a form of sexual abstinence, a natural family planning method. Some husbands practiced bigamy which reduced any chances of committing adultery because he had another wife/s to satisfy his sexual desires (Holly, 2007). Given the increasing rate of sexually transmitted infections (STIs) in PNG today, such practice imposes the risk of contracting such infections. Then the husband transmits a STI to his wife (AusAID: Australian Government, 2006b). Therefore, modern forms of family planning still allow couples to live together and enjoy their sexual lives, without worrying about creating unwanted pregnancies. At the same time, the husbands have an
obligation and responsibilities as a parent to support their wives in caring for their younger children rather than expecting their wives to do the chores alone.

Back at the health centre, some participants wished staff had educated them about preparation for the birthing process. That is, first-time mothers said they did not know about the labour process and how it impacted on their bodies. It was interesting to note that these wanted to know the average length of labour stages and signs to indicate that the baby was ready to be born. In this village, children asked their mothers to tell them how babies were born. The latter lied that when they went to the hospitals the nurses and doctors removed the newborn through their umbilical area. This myth was accepted then by kids but it contributed to the ignorance of first time mothers who lacked an understanding of the normal birthing process.

Some stated that the male staff examined them without the presence of the female staff. Professionally and ethically, this is unacceptable practice in any culture (Gerein, Green, & Pearson, 2006; Yanikkerem, Özdemir, Bingol, Tatar, & Karadeniz, 2009). Unfortunately, women were naïve about their human rights on this matter to refuse being examined by the male staff. Still, participants prefer gender-specific care, a non-threatening and safer option (Yanikkerem et al, 2009). This also applies to intrapartum and postpartum care. Despite the tests and other physical examinations, women were not involved in the care or planning of their births. Sensitive examinations of the body, including the breasts, abdomen and vagina, were forced upon the women. As a result, this care created frustration and embarrassment in the women, but they were silent about it, except to confide in another expectant woman. Some expressed that they did not go to the antenatal services for fear of having these examinations performed on them. Even though the antenatal services were only a walking distance away, for PNG/Newcastle women, they deliberately refrained from attending them. As shown in Chapter Three, women who do not attend antenatal care miss out on the essential benefits they need, not only for themselves but for the unborn baby. Safe Motherhood recommends that women should have four antenatal visits during pregnancy in order to have a positive outcome (Fathalla, 2006; White Ribbon Alliance, 2010).

In retrospect, many women felt that the antenatal care they received fell short of expectations and was far from ideal. Interestingly, these women had a fair understanding of the kind of care they were expected to receive at the antenatal services. Some examples are listed earlier of the substandard care. A classic example is the prophylaxis medications. Although women needed these, health staff failed to supply them. That has been the case in many rural health facilities in PNG (Hinton & Earnest, 2010a). For most village women, this instruction was quite acceptable as garden crops are available. Therefore, staff ought to administer prophylactic medications as a mandatory care to prevent malaria and anaemia during pregnancy (Ekejindu, Udigwe, & Chijoke, 2006). Nurses and midwives have ethical obligations to explain the consequences of malaria and anaemia to women and their babies.
Anaemia in pregnancy complicates severe haemorrhage, which is a first and major cause of maternal mortality (Mousa & Alfirevic, 2007; Walraven, Wanyonyi, & Stones, 2008). Pregnant women (and unborn babies) decision towards compliance in taking medications is shaped by their understanding of the adverse effects of malaria and anaemia.

On the other hand, the women lacked an ability to be assertive for appropriate care, when their expectations were unmet. Staff took for granted that they know the rationale for all the tests and examinations. Perhaps time constraints and shortage of manpower influenced their decisions. But clearly all pregnancies are different (Graham & Hussein, 2007). Each pregnancy case should be treated as an individual (Islam, 2007). And receiving antenatal care is a human right, as supported by the WHO and Safe Motherhood (Jafarey, Kamal, Qureshi, & Fikree, 2008; Madi et al., 2007). Practice issues surrounding antenatal care are described so that future expectant women in PNG will not experience what Christina encountered. Although she sought antenatal care, she laments that proper midwifery care was unavailable. What could have been done at the antenatal clinic to prevent pregnancy-related complications occurring in the first instance is a question relating to unprofessional conduct and practice issues demonstrated by health care staff.

**Practice issues: intrapartum and postpartum care**

The data analysis shows eight participants received care from skilled birth attendant at the health facility. Intrapartum refers to the specialised care offered to women during labour, birth and postpartum, care given to both the mother and her baby following birth and up to six weeks (Roberts, Bell, Ford, & Morris, 2009). Three gave birth at the rural health centres and only two gave birth at home. Of these two, Mary, as discussed in Chapter Six laboured alone all night until an older woman assisted her to give birth. Violet gave birth to a stillborn baby. Her only support during the labour and birth was her husband. It was impractical to seek skilled birth assistance.

The fact that a majority of women sought skilled care shows that they understood the importance of receiving quality maternal care from the skilled birth attendants. But as the data revealed in Chapter Eight, most of them had negative birthing experiences in the hands of trained health staff. Wendy was abused and deprived of nursing care at a provincial hospital.

Many of these women were coached into pushing out the baby for a few hours, without success. Thus, they became agitated and frightened of dying while in labour. For all the women who experienced abuse, they have described how it made each one felt closer to dying. This is Wendy’s brief account of her experience: ‘The nurses were so mad and swore at me. I gave up. But then I prayed quietly to Jesus to help me.

Wendy said her entire body desynchronised and delayed her birthing process and her ability to push was severely affected because of negative emotions (Rudman, EL-Khouri, & Waldenstrom, 2007).
Such negative and traumatic experiences during intrapartum care affects women for life (Borquez & Wiegers, 2006). There is a call to provide best midwifery care that women would find non-threatening, and user-friendly (Lee et al., 2009). The women should be encouraged to participate in planning their care (Carr & Riesco, 2007), hence, the aim of this inquiry.

As described earlier, Donnelly had similar abuse in labour. She survived, thanks to family support in labour. Family support plays a vital role in positive outcomes for women and babies (McCourt, 2009b). Most women enter the health facility with uncertainty, not knowing whether or not they will be supported to have a positive birthing outcome (de Jonge, Rijnders, van Diem, Scheepers, & Lagro-Janssen, 2009; Khresheh, Homer, & Barclay, 2009; Weeks, Lavender, Naziwa, & Mirembe, 2005). Staff showing a lack of cooperation add unnecessary emotional trauma on women. When team work is lacking care for women is compromised (Bartlett, 2005; Fauveau, 2006).

Rosaleen’s labour pain was excruciating but nurses neglected me. These forms of care women received reveal that maternity services for women continues to fall below acceptable standards in some areas of PNG (Jo, 2009b) and the pregnant women who seek skilled birthing care find themselves falling victim to the worst forms of care during intrapartum care (WHO, 2012). But all women deserve to be shown dignity and modesty (Prata, Sreenivas, Vahidnia, & Potts, 2009). From the data, this type of care was lacking. It is no wonder that negligence of the staff affects women, who fret to seek skilled birthing attendants (Hinton & Earnest, 2009). They prefer home birth and assistance of TBAs, whose support in labour is widely practised in indigenous cultures (Moore & Riley, 2010). The TBAs approach is perceived as outstanding than that of uncaring skilled birthing attendants (Sibley et al., 2007).

The women of Newcastle, as mentioned earlier, knew their rights to have good maternal health care during pregnancy and birthing. They wanted support in labour by a significant person and two preferred their husband’s presence. In one case, the lack of privacy in the labour disqualified the request while in another, the husbands was present. This shows that policies should enable family and relatives to offer support to women in labour, if desired. But the physical layout of birthing rooms can dissuade husbands and other family support at birth (Borquez & Wiegers, 2006).

**Good practice: positive outcomes of pregnancy and birthing**

There is evidence from four women, namely Enderlyn, Uraura, Lindy and Maryanne that they had positive birthing experiences. The skilled birth attendants showed respect and understanding. The women were encouraged to have a natural birth, as expected.

Enderlyn reminisced about a female staff whose nursing care, she highly valued. ‘I had a normal birth’.
Uraura proudly says, ‘the PNG nurses assisted her well in labour, and her back was massaged. I had a normal birth’.

Lindy was assisted by a Catholic nun sister. She recalls, ‘I was supported very well in labour while giving birth’.

Maryanne reminisced that the nurse was very committed despite complaints about some staff being rude. ‘My helpers were very kind to me. I had a normal birth’.

All four cases had one significant support. That is, the skilled birth attendants were female staff who rendered gender-specific care to them. An exception was Maryanne. One of her assistants was a male. Maryanne requested him to leave the room because she was embarrassed. But he reassured her. Maryanne relented.

**What did the villagers want?**

In Lomakunauru, thirty women joined the PAR groups. We had three group sessions and together we explored many complex factors that contribute to maternal deaths through direct and indirect causes. When women started to talk, conversations replicated the major constructs revealed during the one-to-one interviews. Women realised that failure to attend antenatal clinic could lead to fatal pregnancy-related complications. It was noted that some staff delivering maternity care were abusive. Nutrition was also discussed. Food consumption had changed from the local garden foods to refined rice. They mentioned an agenda at the first meeting, concerning the lack of village health volunteers or TBAs. The women set three items for discussion which were:

- Information on pregnancy and birthing
- Training traditional birth attendants
- Health Post

**Women requested information on pregnancy and birthing**

Women asked for more information about pregnancy and birthing. This was particularly evident with the PNG/ Newcastle women. This reflects that most women are hungry for basic factual knowledge on improving their health. The sexual and reproductive health topics are important, and women in the village need to know about them. They desire to understand the anatomy and physiology of their reproductive systems, how their bodies function biologically and emotionally. Then they can understand how to relate to and integrate with other people in their lives.

Despite their limited formal education, women can learn from health educators. Listening to the stories of women, I observed that the provision of maternity care for women was uncoordinated and
under-resourced. Most health staff providing maternal health lacked midwifery proficiency to assist women during pregnancy and birthing. This observation is alluded to Kruske and Ashwell (Ashwell & Barclay, 2009; Kruske, 2006).

The PNG/Newcastle women also spoke about lack of maternal health information and education resources, which they had experienced before they became mothers. Also, village women expressed their desire for basic midwifery. However, this group opted for an oral training program by the health centre female staff. This creates awareness that illiterate women may not perceive written materials in books as an educational. They preferred the traditional communication mode to learn, a reflection of a lower educational expectation. Using various body senses was beneficial too such as watching movies on maternal health issues. The village women wanted practical teaching resources to help them learn effectively. I suggest a wide community education strategy on maternal health is worth implementing.

**Training traditional birth attendants**

The PAR group agreed that more TBAs can assist the only one in Lomakunauru. She had undergone basic training in the past but she was older now and her physical health was affected. Participants chose two female representatives each from the five hamlets to offer support to expectant woman whenever necessary. For this reason, the PAR group the appointment ten TBAs, an important change towards improving maternal health.

The PAR group selected ten women: five respected older women, experienced in childbirth and some middle age or younger women who would be mentored. These younger women were selected based on their likeable personality, and attributes like respect and honesty. But training in basic midwifery was essential for the group in order to implement their role effectively.

**Health Post: Is it a possibility in this village?**

Women wanted a local clinic, which I have called a community Health Post, as a space dedicated to improving maternal health in Lomakunauru. Other villagers were keen to build the clinic but further planning is needed before it can be built. In PNG, churches are working in partnership with state health services (Hauck, Mandie-Filler, & Bolger, 2005) to provide basic essential care to rural populations. As an alternative to a having a clinic in Lomakunauru and, acknowledging what participants wanted, is a strengthening or return to the mobile MCH clinics that were once operational in PNG. There is evidence from Lao Republic (Ryan, 2005) that mobile reproductive health clinics improved mothers and children’s health.

Basic goods and social services have deteriorated in PNG and access to health services in rural areas has become more challenging (Litau, 2011). The former service provided to the Murat areas in the
past decades through regular mobile boat clinics was regarded as adequate by participants, compared with today’s non-existent and/or fragmented and unprofessional services. Throughout PNG, rural health facilities are either closed or operating inefficiently (Hinton & Earnest, 2009; The National, 2009). Low expenditure on health care is a likely cause, constrained by the political, cultural and health service structures (Joannes, 2012).

The GoPNG rhetoric is that participation of people at grassroots levels toward acceptable solutions should be encouraged (Mackay & Lepani, 2010b). But the GoPNG must hear about priorities that villagers need, and my view is that social researchers, particularly in health and education fields in PNG need political support of the GoPNG to collaborate with rural populations. Otherwise, it is extraneous to augment the current NDoH goal, ‘To return to basics’ with rehabilitation of the primary health care system. This system is aimed at promoting maternal and child survival and reducing the burden of communicable diseases. The point is that, ‘back to basic’ might mean ‘reviewing and reinvesting in the training of TBAs, and establishing rural Health Posts and reconsidering mobile clinics.

What can be done to improve maternal health?

The literature in Chapter Three explored interventions to improve maternal health. There are some valuable lessons to be drawn from experiences in other developing countries that have faced similar challenges as PNG. In this inquiry, research participants chose three main items: community education on reproductive and sexual health, trained TBAs and a health post dedicated to basic health care, including birthing. Together, these can benefit the health of the entire community.

The cost of maternity services in PNG is worth considering. Updates on that literature shows that free maternal health care in Ghana (Witter, Adjei, Amar-klemesu, & Graham, 2009) and advocacy for free maternal and child health care in Nigeria (Witter, Adjei, Amar-klemesu, & Graham, 2009) have shown dramatic improvement in the health of women and children, thus, reaching the fifth MDG.

Concerning PNG’s Health System reform, Mackay and Lepani (2010a, 2010b) suggest that the voucher schemes may be a solution to paying for services. Although this is not about total ‘free’ health service, what this means is that a person has subsidised care for targeted services including MCH services from accredited providers (private and public). These vouchers will be supplied by governments or independent agents and will be monitored. These two (same) authors explain that a micro-health insurance cover may be given to members for medical treatment, in exchange for a small annual premium. Such premiums may be sufficient to cater for rural villagers. But these ideas should be explored within the PNG context.

In the PNG NDoH (2003) the government is considering alternatives for health care financing. One of the options is health care insurance, as highlighted. In my view, the PNG NDoH should undertake
feasibility studies for such issue because most rural people live below the poverty line. They cannot meet funding for healthcare insurance cover unless the GoPNG bail them out.

Mola et al (2009) suggest that poor women can donate fresh foods or local crafts to the health staff at the hospital or health centre. A staff can sell them and pay for the cost of the MCH services a woman incurred. At the same time, other women who are employed or engaged in entrepreneurial business should be charged a higher fee for the same services because they can afford them. This is not only a logical but practical option which rural women might choose to adopt.

Unless the GoPNG pledges its full political will and commitment to support women, the stark reality is that the PNG’s rural and urban MCH services will not improve, even though participants may have raised and requested reforms to change their desperate maternal mortality situation.

**Linking this study within the larger PNG health sector**

In a 2006-2008 report, the third public health strategic direction was to reduce maternal mortality in the districts that experienced high maternal deaths (Government of Papua New Guinea, June 2010; Hinton & Earnest, 2010b; Lepani, 2010). Its strategic objectives were to increase the first antenatal visit coverage to 80%, and increase the percentage of supervised births by trained midwives and TBAs to 80% coverage; to reduce postnatal complications amongst mothers who gave birth at health centres from 8 per 100,000 to 5 per 100,000 live births; and to increase ‘modern’ contraception usage rate to 25%. Unfortunately, reports reveal that these goals were not met, and the health of women has deteriorated. Many rural health facilities have shut down, while the MMR continues to rise (Mola, 2009; Sangai, de COSTA, & Mola, 2010).

In the National Health Plan 2011-2020 (Volume 1), a report on recent PNG policies presents a horrifying statistics for MMR in PNG. It is believed to be 733 per 100,000 live births (Mola, 2009). The MMR was 370 in 1996. A key result area (KRA) is number five, improving maternal health. This report on PNG’s health plan includes KRAs which intersect with MDGs. Acknowledging that previous goals were not met, the strategy advocates ‘back to basics’. This relates to Primary Health Care for all, and is focusing on improved service delivery for the rural majority and urban disadvantaged.

The escalating MMR of 733 per 100,000 is quoted in 2006 by the NDoH, PNG, and its increasing rates remains an astonishment. How is this escalating tragedy difficult to address? Why have maternal health services and conditions deteriorated terribly? It is related, perhaps to the low frequency of women attending antenatal care, the extreme shortage of skilled birth attendants when birthing, the isolated rural/remote villages where more than 85% of PNG’s population live, the tyranny of distance, and expensive transport costs to make birthing in PNG such a huge hazard.
We hear continually that PNG is one of the most ethnically and linguistically diverse countries in the world. At a wantok (friends) level there may be groups and social adhesions that work collaboratively, but competition at national levels for access to resources is difficult (Gewertz & Errington, 2006). To initiate health service reform, such as achievement of the eight MDGs, is good but it is a challenge. Yet, it should be done if lives of women are to gain better health outcomes. The main responsibility for delivering healthcare services lies at the local, district level and provincial level where there is a high degree of autonomy (Papua New Guinea National Health Department, 2010). But transparency and management of accounting systems, especially for health funding in many settings are almost in abeyance (Izard & Dugue, 2003). These are important areas that the administration of the health care services should improve their performance in, if any authentic health improvement, including maternal, is to be realised (Mackay & Lepani, 2010b).

In PNG there are other considerations delaying progress toward the fifth MDG. As discussed in earlier chapters, PNG is a country ranked at 162 out of 179 on the transparency international perception index. One of the most important ways to improve rural maternal health is to have available services that are functioning well at district level, because diversity is a key feature of PNG and health service models will vary according to environments (Hinton & Earnest, 2009). Emphasis needs to be given on developing solutions that will enmesh with the political, cultural and physical location at local level (Hinton & Earnest, 2010a).

The plan and policies of the GoPNG suggest key result areas are matched to the eight MDGs as well as lobbying towards political priority for global health initiatives (Asian Development Bank, 2006). Finding ways to promote development in health within PNG have often attracted consultation from international experts, but there have been few successful actions and outcomes, and the policies and suggested reform practices are difficult to implement (Ashwell & Barclay, 2009).

The new National Health Plan 2011-2020, shows an implementation plan, the top-down structures at the national, provincial and district levels, and invites sector wide partnerships called Sector Wide Approach (Government of Papua New Guinea, June 2010). But it needs to show a clear process to invite participation from health service users. That is, ordinary people should become equal partners in making decisions on health care delivery. This type of capacity-building amongst the PNG population is vital and is highlighted briefly.

**Improving PNG maternal health with external support**

AusAID has been involved with PNG since independence in 1975, and a net aid to PNG in 2006 was equivalent to 5.5% of its gross national income. In recent years Australia has provided more than 85 per cent of PNG’s net aid (AusAID- Australian International Development Aid Program, 2007; Bureau of East Asian and the Pacific Affairs, 2007). Other sectors supporting PNG are the Global
Fund against HIV/AIDS, TB and Malaria, as well as significant support from the Asian Development Bank, (ADB), New Zealand, WHO and the Global Alliance for vaccination and immunisations. Taking into account what is sometimes called the boomerang effect in developing nations, that is, funds are spent, for instance, on non-PNG aid staff and it pays for the resources they consume rather than being relayed to PNG people and much needed health services, is still a challenge (United Nations, 2008a; Zimmerman & Legerski, 2010).

In a working paper on PNG published in 2009 (www.ode.ausaid.gov.au/.../working-paper-health-service-delivery-png.pdf accessed 21May2011). AusAID attempts to respond to and offer feedback on questions about its lack of impact towards capacity building in PNG. It talks about the constraints and obstacles in working with and researching inside PNG communities (AusAID: Australian Government 2006; AusAID: Australian Government 2006; AusAID- Australian International Development Aid Program 2007; AusAID: Australian International Development Aid Program 2007). The path to achieving service delivery outcomes refers to increased use and coverage, reduced gender and poverty related inequity (Duncan, Batten, & Gomez, 2009). The impact in PNG could be measured by increased lifespan as well as reduced morbidity. Even equity, social and financial risk protection, especially amongst women, is greatly needed as pointed out by Morris and Steward (Morris & Steward, 2005). The AusAID report shows that PNG has: ‘widespread breakdown in service delivery and the economic and social impact of the emerging HIV/AIDS crisis will intensify in the next five years (Australian Government, 2008a, 2008b).

PNG has the worst social indicators in the Pacific, and its human development indicators remain poor relative to its per capita income (Australian Government, 2008d). Women are particularly disadvantaged with lower life expectancy, significant lower participation in the education system and high rates of maternal mortality (Abirafeh, 2009). In a country of extreme linguistic and ethnic diversity, policy reforms in PNG have to consider an intense pressure on politicians and government officials to promote interests towards their own clan or language group (wantok) (Asian Development Bank, 2006; Bolger, Mandie-Filler, & Hauck, 2005).

I have argued that it is important to describe social and political contexts to show how the PNG health system operates, but, most importantly, local people need to be involved in the services that affect them (MacLaren, 2006; Sembajwe, 2009). This suggestion is not so much creative as novel.

The Lowy Institute for International Policy authors (Mackay & Lepani, 2010a) writing from Australia, concur that creative approaches to revitalise PNG’s Health Care System are urgently required. These authors repeat the oft heard statistics that rather than reducing the MMR to meet the fifth MDG, maternal mortality has almost doubled in PNG.
Apart from Global networks such as the WHO, another external support organisation is the White Ribbon Alliance for Safe Motherhood, which was accessed early in my candidature, (http://www.whiteribbonalliance.org/members.cfm/member.orgs). This organisation has inspirational goals to promote maternal health as part of a global women’s health movement. I have joined this organisation’s maternal health blog page and will submit my own blog page in February, 2013. This is one way to share women’s voices, introduce community development and alert readers to PNG’s local context and conditions that interfere with promoting maternal health to its citizens.

I have a solemn responsibility to share the findings of my study with significant individuals and groups, institutions, donor organisations and stakeholders, so that these groups and individuals can support the women to take a stand and lobby the GoPNG. In order for women’s choices to be sustainable, community participation is required in involving the wider sectors: transport, education, finance and health. In an effort to make contact, I would explore the lines of communication of health and other sector administrations that exist outside the village community at provincial and national levels. In this way, the decision-makers in national ministries and the WHO can gain knowledge about local village level conditions, and register the women’s reform suggestions toward developing more meaningful primary health care programs and policies. Finally, one of the ways to inform about events and other relevant information regarding maternal health improvement in PNG is via a Google Blog page: Promoting maternal health in PNG.

**Conclusion**

This PhD study was informed by democratic principles, and it was crucial to note how women’s voices may gather a response from the wider PNG political system. There is evidence of how little women’s lives are valued, or their voices heard in Lomakunau and perhaps in other PNG villages. This is precisely what this study has attempted to do: to listen to the voices of women and raise their level of consciousness, to create awareness in relation to their rights to have a safer motherhood journey; and to involve communities in capacity-building toward health reform, around the family circle and in the larger village setting, in order to advance promotion of health of women in PNG.

It was interesting to see how this small democratic study may be interpreted in the larger PNG political system, and assess how the social environment is likely to respond to reform in health care provision. There is an indication that the current GoPNG will want to support the Safe motherhood programs in PNG as highlighted in the current National Health Plan, 2010-2020.

The main responsibility of service delivery rests with the GoPNG political will and support from its government staff at all levels. In order to reform PNG’s health care system, creative approaches are required. I have argued that it is important to describe social and political contexts to show how the
PNG health system operates, but, most importantly, local people need to be involved in planning the services that affect them. The final chapter below will affirm vital themes of this inquiry.
Chapter Eleven: Conclusion
**Introduction**

This study was guided by PAR approach as articulated by Koch and Kralik as mentioned earlier. The methodology comprised of two distinct phases: storytelling (one-to-one interviews) and PAR group meetings. In this study, I have taken the reader to the global and PNG contexts in Chapter Two and local contexts of Lomakunauru in Chapter Seven. As an indigenous researcher I tended to take local knowledge for granted. PNG has noted, is incredibly diverse in terms of its geography, vast number of islands, and 1,100 languages coupled with cultural and religious traditions. Lomakunauru village is very similar to many other villagers of PNG which thrive on subsistence farming, and travel great distances to access its limited health services. I will argue that transferability of findings is possible because of the contexts being described are similar.

The literature review showed a number of feasible strategies that have been successful in many developing countries whose circumstances are similar to PNG’s. Examples of these are Safe Motherhood programs, family planning, antenatal care, skilled birth attendants and TBAs, to name a few.

In the effort to advance the cause of village women and the maternal health reforms, two ministerial departments would receive an abridged copy of this PhD study. They are, Community Development, Religion and Sports, and Health and HIV/AIDS. There are significant groups and individuals in PNG who hold power and can work with me to improve the health of women in PNG.

**Meeting the study’s objectives**

The study’s objectives were:

1. To research with PNG women living in Newcastle and collaboratively explore ways to improve maternal health, with individual women initially in one-to-one interviews, and then collaboratively with this same group of women and supervisors.

2. To engage in an apprenticeship phase using PAR. This meant I practised data generation using the ‘look, think and act’ framework, concurrent analysis, feedback cycles, and facilitating and managing PAR group dynamics towards action.

3. To consider what had been learnt during objectives 1 and 2 and identify success and constraint indicators in using PAR as a community development strategy in one PNG village.

I would research alongside village women in Lomakunauru, NIP, PNG for nine months in 2010. While researching alongside women in my village in PNG, the objectives for Phase Two were:
To collaboratively explore maternal health, and to examine and describe factors and contexts that are associated with maternal mortality in Lomakunauru rural village.

To build awareness about maternal mortality through the PAR process and collaboratively decide on reform strategies.

The research objectives for Phase One and Two explored possibilities for promoting maternal health. All objectives have been met.

**Phase One: Apprenticeship**

In my apprenticeship, I learned that PAR demanded a systematic and rigorous data generation/analysis process, responsive feedback cycles and ongoing reflection. Keeping a daily journal was important. I reflected and thought deeply about the research process while I was conducting it. One-to-one interviews were done initially. Four stories were told about pregnancy and birthing. In terms of building relationships, critical to the PAR process, I have demonstrated sound communication skills with PNG.

Storytelling and analysis I learned to transcribe all data and managed data files by myself from which women told me one pregnancy and birthing event. In each paragraph, all significant statements were identified. The statements from all the first sentences of the paragraphs formed subsequent paragraphs. These were reordered into a storyline. This storyline was further condensed and joined to form a shorter story. Ongoing validation of the story with the woman may be viewed as one way of memory-checking. This constant validation and collaborative writing process adds rigour to the study.

Practice Participatory Action Research group The PAR participants had four meetings with me as a facilitator of this group, and I observed group dynamics. My main role enabled everyone to have a voice and promote group interaction. Any forms of power, manipulation and judgemental attitude were avoided. The group decided on the agenda. I was conversant with the ‘look, think and act’ processes and expanded my skills to establish a productive, cohesive group. As I facilitated the meeting, I constantly analysed whether the group was ‘looking, thinking or acting’.

As stated already, feedback is a routine activity of the PAR cycle. We shared and learned from each other through the collaborative environment. I was satisfied when the women controlled the process and drove the agenda. They saw the essence of promoting maternal health in PNG. I was led to learn an apprenticeship process which helps me understand ways to use PAR and storytelling with women from PNG. It gave me confidence to use interviewing and facilitation skills. The study’s third objective, I learned to take the PAR study into my village. The constraint identified was limited access to communicate through the Blog page because the field setting was remote.
In terms of rigour, I considered ‘transferability’ and learned to write about it. It was clear that transferring findings from one setting to another was possible if the contexts are similar. Before conducting Phase Two, I wrote Chapter Seven to show the village context for the field study.

Phase Two: In Lomakunauru village

The objectives for Phase Two are listed in Chapter five. In short, the Phase Two objectives 4 and 5 were achieved: I conducted the study in PNG by using the PAR methodology as practised in Phase One. My research time was shorter as mentioned in Chapter Seven. I interviewed ten village women and developed a story that each woman was satisfied with.

Stories told

The contribution of women’s stories is critical on the subject of maternal health in PNG. Researching across several languages took a lengthy process but it was worthwhile and each participant received their own story in the language they selected. Every story was translated into English for readers of this PhD thesis. Also, I identified common constructs to the discussion chapter so that I could contribute theoretical content to the thesis argument. The stories are powerful. They clearly portray what it is like to conceive and have a solitary experience of pregnancy without prenatal care then to give birth in difficult circumstances without support from family members. Their voices were silent in the entire birthing process. Verbal abuse experienced while birthing was not uncommon. Objective four of this study was satisfactorily met.

Toward reform and improvement of maternal health

This study has given insight into women’s situations through their stories. For too long, we have heard professionals’ voices but the voices of women are absent in most literatures. Understanding what it is like for village women to be pregnant and give birth is one of my main contributions to ‘new’ knowledge toward advancing maternal health. As well, my advocacy role through engaging with the village women, and creating their consciousness about maternal health and their rights, and collaboratively identifying local and cost effective ways of addressing their concerns by using local resources, has been a local response to my research question: how to improve maternal health in PNG.

My time researching alongside village women in PAR groups was incomplete; we made plans collaboratively but we did not have an action stage. Three items were raised on the PAR group’s agenda: a need for better educational package for pregnancy and childbirth, the need for trained TBAs, and a desire for a Health Post, which could be multifunctional in terms of educational and health service provision, but would have dedicated design and space for prenatal services and birthing women.
For future networking: the blog page set up by the PNG/Newcastle PAR group will be used to communicate research findings in this study to other significant persons, and international organisations including the WHO and AusAID. I will work alongside international organisations including Safe Motherhood, White Ribbon Alliance and Pathfinder International in an attempt to promote maternal health and curb the tide of maternal mortality in PNG.

In the previous chapter, furthering these agenda items was discussed, and the following recommendations are made:

**Implications and recommendations**

Urgent reforms are required to achieve MDGs goals in PNG by 2015. The fifth MDG aims to reduce the MMR by 75 percent by 2015. In terms of MDG5 and maternal health, it was disappointing to hear that 13 out of the fourteen PNG women had sought midwifery or skilled nursing care and support during pregnancy and birthing but found those services less than professional. Whilst skilled birth attendants are generally considered the mainstay of maternity services in urban PNG, more attention needs to paid to their education and training with particular emphasis on developing awareness of professional practice issues including attitudes towards women and birthing and their legal, moral and ethical obligations for practice. ‘Events’ of malpractice and negligence should be brought to the attention of the regulatory bodies such as the Nursing Council of PNG through mandatory reporting of these events. In conjunction with a focus on monitoring practice issues and concerns, the Nursing Council of PNG should also monitor the quality of nursing and midwifery curriculum, clinical practice and educational preparation and provide for a closer regulation of the practice of nurses and midwives in PNG.

The high maternal mortality in PNG needs to be challenged at all levels of the population including state, churches and NGOs. In line with International Confederation of Nurses and, in view for nursing in the 21st century, more nurses should be educated in future for management and leadership in health care reform. This will mean educational curricula revision. Part of the education I envision is that nurses should understand health system reforms and its impact, to contribute to policy development, manage change and work effectively in teams, partnerships and alliances.

Well-educated nurses and midwives should recognise that there are global alliances and networks such as White Ribbon Alliance and Pathfinder networks. I argue that that nurse’s leadership contribution should be proactive, enhancing health promotion and service provision.

Meanwhile, this community development study was driven by the village women who requested that TBAs are trained to provide pregnancy and birthing care. My recommendation is that further research is undertaken to explore training and regulation of TBAs in PNG’S rural settings. I have recorded
many arguments surrounding training of TBAs, and I believe that in PNG’s situation this is the way forward in the near future, with a plan to increase training of more skilled birthing attendants to assume the critical role of providing maternal health in the distant future. With close supervision and training, TBAs can help to decrease maternal and newborn mortality rates (Yousuf, Mulatu, Nigatu, & Segun, 2010).

By design a PAR approach was utilised to engage and work alongside women of PNG to improve their health. I strongly recommend future research to explore maternal health issues in PNG so greater evidence-based interventions can be implemented. It is essential to have support of the GOPNG and the external agencies to build research capacity and budding in this vital area.

Qualitative studies using the PAR approach are needed in future in order to build understanding about the experiences of childbearing in pregnancy and birthing situations and to provide valuable data generated through the PAR principles to further the work that was been done in this study. Collaborative approaches with indigenous communities are essential in order to bring about change that is meaningful to communities. I will research with others, including researchers and indigenous communities, to implement the principles of PAR and to bring about understanding of the processes. By researching with other indigenous communities I hope to build a better understanding required by nurses and midwives to provide culturally acceptable and affordable maternity care to promote safe birthing outcomes for women in PNG. Working alongside trained TBAs in communities may be a good starting point for an in depth and meaningful exploration of how maternal health could be improved in PNG and to explore important issues related to training and evaluation of TBAs in rural villages of Lomakunauru and others in PNG.

The findings of this study represent an important step forward in understanding the plight of women in rural areas of PNG. Indeed the findings of this study have made explicit what it is like for the women participants to give birth under difficult circumstances and what they see as important and relevant for their health and the health of other women into the future. In addition, it will be vital to follow up the actions from this study to see if village reforms are sustained and to ensure:

1. the village Health Post has been built and the TBAs (women) have undergone education and that education programs for TBA are developed and evaluated throughout PNG.

2. the voices of women are heard in the wider PNG context and that reform is realised more broadly through presentations, publications and Government representation of women.

3. that this PAR study is repeated in other villages as community development type programs are the best way to promote maternal health as grassroots action is more likely to be sustainable.


Limitations of the study

As a novice researcher, I have endeavoured to conduct this study under the guidance of my PhD supervisors. I have also considered what I would do differently next time, which includes spending greater time with women participants in order to offer greater advocacy and facilitation processes towards actions which they propose in improving their health. Hence, every woman deserves a safe pregnancy and childbirth process, and quality care whenever she needs it. This is a basic human right, and should be granted. Whilst this basic human right is important to envision, PNG still lacks numbers of skilled birth attendants to offer maternal healthcare to women. To date, the WHO recommendation for skilled attendant for every birthing woman is far-fetched in the PNG setting. I have argued that TBAs in PNG should function for rural village women until the GoPNG delivers skilled birth attendants as a replacement in future.

In conclusion, my research question was, ‘What can be done to improve maternal health in PNG?’ I have gained answers to this question as it relates to research findings of this study.

What is my thesis?

My thesis is that safe birthing is a human right and this has been denied to many PNG women. Urgent reforms are required to achieve, in particular, the fifth MDG in PNG by 2015. The bedrock for achieving better maternal health is a functioning healthcare service and midwives and nurses, who are a large health work force, are able not only to contribute to maternal healthcare but also to lead. I believe that educationally well-prepared nurse-midwives can take the lead in these reforms and that the use of PAR is an essential first step towards sustainable changes and ultimate Government reform


Phase One Study: Newcastle, Australia

APPENDIX 1: University of Newcastle- HREC ETHICS APPROVAL LETTER

Appendix 2: Expression of interest letter to PNG-Newcastle women

Appendix 3: Recruitment poster

Appendix 4: Information statement letter

Appendix 5: Consent form

Phase Two study: Lomakunauru, PNG

Appendix 6- UON, HREC Ethics approval letter

Appendix: 7 Letter sent to Lomakunauru village leader

Appendix 8: Information statement letter: in English

Appendix 9: Information statement letter: in Tok Pisin

Appendix 10: Information statement letter in Mussau language:

Appendix 11: Recruitment poster in English

Appendix 12 Recruitment poster in Tok Pisin

Appendix: 13 Recruitment poster in Mussau language

Appendix: 14 Consent form in English

Appendix: 15 Consent form in Tok Pisin

Appendix: 16 Consent form in Mussau language

Appendix: 17 Information statement letter in English

Appendix: 18 Information statement letter in Tok Pisin

Appendix: 19 Information statement letter in in Mussau language

Appendix: 20: Verification of translation of language from English to Tok Pisin

Appendix: 21: Verification of translation of language from English to Mussau language

Appendix 22: PAU Research Approval letter for Phase Two study
HUMAN RESEARCH ETHICS COMMITTEE

Notification of Expedited Approval

To Chief Investigator or Project Supervisor: Professor Isabel Higgins
Cc Co-investigators / Research Students: Professor Tina Koch
Mrs Nina Pangiau
Re Protocol: Improving maternal health and reducing maternal mortality in Papua New Guinea (PNG): Phase one pilot study using Participatory Action Research (PAR) study in Newcastle, Australia
Date: 02-Mar-2009
Reference No: H-2009-0008

Thank you for your Response to Conditional Approval submission to the Human Research Ethics Committee (HREC) seeking approval in relation to the above protocol.

Your submission was considered under Expedited review by the Chair/Deputy Chair.

I am pleased to advise that the decision on your submission is Approved effective 26-Feb-2009.

The full Committee will be asked to ratify this decision at its next scheduled meeting. A formal Certificate of Approval will be available upon request. Your approval number is H-2009-0008.

If the research requires the use of an Information Statement, ensure this number is inserted at the relevant point in the Complaints paragraph prior to distribution to potential participants

You may then proceed with the research. Best wishes for a successful project.

Associate Professor Alison Ferguson
Chair, Human Research Ethics Committee

For communications and enquiries:
Human Research Ethics Administration

Research Services
Research Office
The University of Newcastle
Callaghan NSW 2308
T +61 2 492 16999
F +61 2 492 17164
Human-Ethics@newcastle.edu.au

19/07/2011
APPENDIX 2: LETTER OF EXPRESSION OF INTEREST FOR PNG-NEWCASTLE WOMEN

Project Supervisors
Professors Isabel Higgins & Tina Koch
School of Nursing and Midwifery, Faculty of Health
University Drive, Callaghan, 2308
Telephone: 02 4921 6144
Fax: 02 4921 6301
Mobile: 0419233305
Email address: Isabel.Higgins@newcastle.edu.au

Expression of interest to participate in a study:
Improving maternal health using Participatory Action Research with Women living in rural Papua New Guinea

My name is Nina Pangiau, an experienced nurse-midwife and teacher from Papua New Guinea (PNG). I am undertaking research studies at the University of Newcastle towards a doctoral degree and am supervised by Professors Isabel Higgins and Tina Koch. Part of this degree course requires me to conduct a pilot study Phase One in Newcastle, Australia.

The aims of the pilot study are to explore experiences of birth in PNG. Interested women will be invited to be interviewed over a several meetings to share their story about their pregnancy and birth in PNG. The second aim is to explore ways to improve women’s health in rural villages of PNG with a group of other women from PNG. The group will be invited to discuss possible ways that women of PNG can achieve this aim. A second phase of the study will be conducted in PNG later in 2009 and 2010.

If you are interested in hearing more about this study please contact Nina Pangiau as follows:
Telephone: 4921 5585 or email: nina.pangiau@studentmail.newcastle.edu.au
Finally, if you know other PNG women living in Newcastle who might be interested, please let them know and invite them to contact me.

Yours sincerely,

Nina Pangiau
APPENDIX 3: RECRUITMENT POSTER FOR PHASE ONE STUDY

HELP IMPROVE WOMENS MATERNAL HEALTH IN RURAL VILLAGES OF PAPUA NEW GUINEA!

Are you a woman from Papua New Guinea (PNG)?

If so, you may be interested in being involved in a study to help women in rural villages of PNG improve their maternal health.

The study aims to explore experiences of birth in PNG through your stories of pregnancy and birth in PNG. It will also explore ways to improve women’s general health. A second phase to this study will be completed later in 2009/10.

If you are interested in being involved or would like more information, please contact Nina Pangiau.

CONTACT

NINA PANGIAU
School of Nursing and Midwifery
T +61 2 4921 5585
E Nina.Pangiau@studentmail.newcastle.edu.au

This research study is being conducted by Nina Pangiau (Midwifery Doctorate student at the University of Newcastle) under the supervision of Professors Isabel Higgins and Tina Koch.

University Drive, Callaghan, 2308
T +61 2 4921 6144
F +61 2 4921 6301
M +61 419 233 305
E Isabel.Higgins@newcastle.edu.au
APPENDIX 4: INFORMATION LETTER FOR PHASE ONE: NEWCASTLE

Supervisors (Teachers)
Professors Isabel Higgins & Tina Koch
School of Nursing and Midwifery, Faculty of Health
University Drive, Callaghan, 2308
Telephone: +61 2 4921 6144
Fax: +61 2 4921 6301
Mobile: +61 0419233305
Email address: Isabel.Higgins@newcastle.edu.au

Research Student
Nina Pangiau
Telephone: 02 4921 5585
Fax: 02 4921 6301
Email address: nina.pangiau@studentmail.newcastle.edu.au

Nina Pangiau PNG address
Pacific Adventist University
Private Mail Bag
Boroko
National Capital District
Papua New Guinea

Information about the study:
Improving health of women of Papua New Guinea (PNG)
August 11, 2009
(For translation to Pidgin English & Tok Pisin)

You are asked to take part in a study which will be carried out by Nina Pangiau, a doctoral student in the School of Nursing and Midwifery at the University of Newcastle, New South Wales, Australia.
The names of her teachers who are helping her are Professors Isabel Higgins and Tina Koch. Nina is a nurse-midwife and teacher who has worked in the hospitals and health centres in cities and towns in PNG for many years.

**Why is the study being carried out?**

Studies show that every year many women in PNG die while they are pregnant, or when they are giving birth to babies, and also after the babies are born. This study is part of a larger study which will find ways to help women of PNG villages to have good health. The first part of the study was done in Newcastle, Australia with PNG women. These women already had experiences of pregnancy and giving birth to their babies in PNG before they went to Australia.

The purpose of this research study is to find out your ideas about how women can have good health in PNG, to share some of the important things you talk about with the bosses or health workers in New Ireland, PNG and to help improve the health care for women in all the villages in the province. We would like to know about your experience with your pregnancy and giving birth, and your ideas on how women in villages of PNG can make their health better.

**Who can take part in the study?**

We are looking for Lomakunauru women on Mussau Island in PNG. If you want to take part, you:

- must be 18 years of age or over
- have already had a pregnancy
- can talk in Tok ples or Pidgin English
- must not be pregnant

**What will we ask you to do?**

If you want to take part in the study, we will ask you to:

- Meet with Nina in private, 2 or 3 times to share your story about your pregnancies and your experiences about giving birth in Lomakunauru village, at the health centre or the hospital.
- Your story will be recorded with a tape or digital voice recorder (not video). Nina will type your story after you have finished.
- During the first meeting, Nina will ask you to tell her some things like your age, if you are married and are living with your husband, and whether you work for money. Nina would like to know about the place in PNG where you belong to and the number of times you were pregnant, where you gave birth to your babies, the name/s of the hospital or health centre in PNG where you gave birth and the total number of your children.
- Take part in three or four meetings with other women from Lomakunauru, about 6-8 of them. We hope that you will share your story about your pregnancy and how your baby was born to other Lomakunauru women at the group meetings. After that we will talk about ways to help women of Lomakunauru and other villages of PNG have good health.
• Agree to share some of the important things you talk about with the bosses or health workers and local politicians in New Ireland, PNG, to help improve health care for women in all the villages in the province.

The meeting with Nina will be held in your home, or at another place where you decide to meet. The meeting with other women will be done at a place in which all the women agree to meet. This may be in a community house or church hall.

How much time will it take?

One-to-one meetings with Nina will take about one hour on two or three occasions or until you are happy that your story has been shared. The time for the women’s group meeting will be one and a half to two hours for about four meetings over two months.

What choice do you have?

Taking part in this research study is your choice. Only women who give their consent or permission, by signing a consent form or having their consent recorded, will be allowed to take part in the study. If you agree to take part and change your mind later for any reason, you can stop at any time. You do not have to give a reason for stopping. If you do so and ask to take out your story, it will be taken out from all recorded interviews as well as in the audio-recorder. The written story will also be taken out from all computer records.

What are the good things about taking part?

We are hopeful that what you share will be used in Lomakunauru village and other villages of PNG to help women have good health especially during pregnancy and at the time of giving birth.

How might you feel when you take part in the study?

While you are taking part in this study and sharing your story of your pregnancy and birth, you may find yourself feeling upset, worried and saddened. If this happens, you will be asked to think about talking to a local village counsellor or the church pastor who may help you put aside these feelings.

How will your name, your story and other things about you be protected?

Everything that you say during the meetings will be kept in private including your real name and age. False names will be used to write the report in the thesis or book and in any other report about the study. At the first group meeting, you will be asked to make sure that every thing that is said inside the group stays inside the group, so that it will not be told to other people. Also, the names of members of the group should not be told to anyone else. This is to make sure that all the ideas that are talked about are kept secret the group.
Where will the report be kept? Will it be burnt eventually? Or thrown away?

The report of the study will be locked in a cupboard in the School of Nursing and Midwifery, University of Newcastle, Australia. It will be kept there all the time when the study is done and up to five years after the study is complete. The teachers and Nina will be the only people to see and read the report at the time of the study. All interview stories and other study reports will be saved and kept on a computer record, on a USB memory stick, thumb drive or in DVD/CD. These are special kinds of computer parts which can save the report of the study carefully. At the end of five years it may be either burnt in the fire or cut into small pieces.

How will the report that is collected be used?

If you agree, your story, or parts of your story may be reported in the thesis or book to be written by Nina. Some of the important things you talk about in the group with other women will be told to the bosses or health workers in New Ireland, PNG to help improve the health care for women in all the villages in the province. If we do, women will not have to die from problems in pregnancy, at the time when they give birth and after the baby has been born.

What kind of report will be given to women about the results of the study?

After the first meeting with each woman and then with group meetings, Nina will provide a short part of your story which is about one and half pages. You will be asked to make changes if you want to. This is to make sure that your story is always in your own words and is true for you. The final thesis or study report will be given to you if you would like.

What do you need to do to take part?

You are asked to read this letter very carefully and try to know or be clear about what it says before you agree to take part. If there is anything you are not sure about, or you want to ask about, feel free to ask Nina your questions.

If you would like to take part, you can tell Nina or the person who gave you the first letter. He or she will let her know. She will then come and talk with you and will make a time so you can share your story with her. At this first meeting, Nina will check that you know all the things that are in this letter and ask if you have any questions or comments. When you clearly know about the study and want to take part, you will be asked to write your name and put your signature on the consent or agreement paper before the meeting starts.
Which person can you contact in Lomakunauru village about the study?

You can talk to the leader of the women’s group in Lomakunauru village at any time if you have questions or comments. This person is the one who gave you the first letter that invited you to take part in this research study.

Yours faithfully

Nina Pangiau

Complaints about this study

This study has been approved by the University’s Human Research Ethics Committee.

The approval number is H-2009-0167.................................

If you have questions or want to know about your rights as a woman in taking part in this study, or you have a complaint about the way in which the study is done, you can tell this to the student, Nina or, if you want to tell another person, you may talk to the leader of the women’s group in Lomakunauru village who is the contact person for this study. If she wants she can contact: The Human Research Ethics Officer, Research office, The Chancellery, The University of Newcastle, University Drive, Callaghan, NSW, Australia. Telephone +61 2 49216333, email: Human-Ethics@newcastle.edu.au
APPENDIX 5: CONSENT FORM FOR PHASE ONE STUDY

Project Supervisors
Professors Isabel Higgins & Tina Koch
School of Nursing and Midwifery, Faculty of Health
University Drive, Callaghan, 2308
Telephone: 02 4921 6144
Fax: 02 4921 6301
Mobile: 0419233305
Email address: Isabel.Higgins@newcastle.edu.au

Research Student
Nina Pangiau
Telephone: 02 4921 5585
Mobile: 0432 157 483
Fax: 02 4921 6301
Email address: nina.pangiau@studentmail.newcastle.edu.au

Consent form for research project:
Improving women’s maternal health in Papua New Guinea (PNG)
Friday, 13 January, 2009

I agree to participate in the above research project and give my consent freely.
I understand that the project will be conducted as described in the Information
Statement, a copy of which I have retained.
I understand I can withdraw from the project at any time and do not have to give
any reason for withdrawing.
I understand that I can choose whether or not to participate in the group
discussions with other PNG women after completing one to one
meetings/interviews with the student.
I understand that my personal information will remain confidential to the
researchers.

I consent to:

- meet with the research student on 2 to 3 occasions (or until my story has
  been told) and have my conversation recorded with a voice recorder and
typed up by the research student. Yes/no
- take part in up to four group meetings with a small number of PNG women
- Have part of my story included in the thesis (or research report) Yes/no

I have had the opportunity to have questions answered to my satisfaction.

Print Name:____________________________
Signature:_____________________________Date: ________________
APPENDIX 6: EXPEDITED APPROVAL FROM UON-HREC: PHASE TWO STUDY IN PNG

HUMAN RESEARCH ETHICS COMMITTEE

Notification of Expedited Approval

To Chief Investigator or Project Supervisor: Professor Isabel Higgins
Cc Co-investigators / Research Students: Professor Tina Koch
Re Protocol: Mrs Nina Pangiau

Improving maternal health and reducing maternal mortality in Papua New Guinea (PNG): Phase two study using Participatory Action Research (PAR) in Lomakunaru, New Ireland Province, PNG

Date: 28-Aug-2009
Reference No: H-2009-0167
Date of Initial Approval: 27-Aug-2009

Thank you for your Response to Conditional Approval submission to the Human Research Ethics Committee (HREC) seeking approval in relation to the above protocol.

Your submission was considered under Expedited review by the Chair/Deputy Chair.

I am pleased to advise that the decision on your submission is Approved effective 27-Aug-2009.

In approving this protocol, the Human Research Ethics Committee (HREC) is of the opinion that the project complies with the provisions contained in the National Statement on Ethical Conduct in Human Research, 2007, and the requirements within this University relating to human research.

Approval will remain valid subject to the submission, and satisfactory
assessment, of annual progress reports. *If the approval of an External HREC has been "noted" the approval period is as determined by that HREC.*

The full Committee will be asked to ratify this decision at its next scheduled meeting. A formal *Certificate of Approval* will be available upon request. Your approval number is **H-2009-0167.**

If the research requires the use of an *Information Statement*, ensure this number is inserted at the relevant point in the *Complaints paragraph* prior to distribution to potential participants. You may then proceed with the research.

### Conditions of Approval

This approval has been granted subject to you complying with the requirements for *Monitoring of Progress*, *Reporting of Adverse Events*, and *Variations to the Approved Protocol* as detailed below.

**PLEASE**

**NOTE:**

In the case where the HREC has "noted" the approval of an External HREC, progress reports and reports of adverse events are to be submitted to the External HREC only. In the case of Variations to the approved protocol, or a Renewal of approval, you will apply to the External HREC for approval in the first instance and then Register that approval with the University's HREC.

- **Monitoring of Progress**

Other than above, the University is obliged to monitor the progress of research projects involving human participants to ensure that they are conducted according to the protocol as approved by the HREC. A progress report is required on an annual basis. Continuation of your HREC approval for this project is conditional upon receipt, and satisfactory assessment, of annual progress reports. You will be advised when a report is due.

- **Reporting of Adverse Events**

1. It is the responsibility of the person **first named on this Approval Advice** to report adverse events.
2. Adverse events, however minor, must be recorded by the investigator as observed by the investigator or as volunteered by a participant in the research. Full details are to be documented, whether or not the investigator, or his/her deputies, considers the event to be related to the research substance or procedure.
3. Serious or unforeseen adverse events that occur during the research or within six (6) months of completion of the research, must be reported by the person first named on the Approval Advice to the (HREC) by way of the Adverse Event Report form within 72 hours of the occurrence of the event or the...
investigator receiving advice of the event.

4. Serious adverse events are defined as:
   o Causing death, life threatening or serious disability.
   o Causing or prolonging hospitalisation.
   o Overdoses, cancers, congenital abnormalities, tissue damage, whether or not they are judged to be caused by the investigational agent or procedure.
   o Causing psycho-social and/or financial harm. This covers everything from perceived invasion of privacy, breach of confidentiality, or the diminution of social reputation, to the creation of psychological fears and trauma.
   o Any other event which might affect the continued ethical acceptability of the project.

5. Reports of adverse events must include:
   o Participant's study identification number;
   o date of birth;
   o date of entry into the study;
   o treatment arm (if applicable);
   o date of event;
   o details of event;
   o the investigator's opinion as to whether the event is related to the research procedures; and
   o action taken in response to the event.

6. Adverse events which do not fall within the definition of serious or unexpected, including those reported from other sites involved in the research, are to be reported in detail at the time of the annual progress report to the HREC.

- Variations to approved protocol

If you wish to change, or deviate from, the approved protocol, you will need to submit an Application for Variation to Approved Human Research. Variations may include, but are not limited to, changes or additions to investigators, study design, study population, number of participants, methods of recruitment, or participant information/consent documentation. Variations must be approved by the (HREC) before they are implemented except when Registering an approval of a variation from an external HREC which has been designated the lead HREC, in which case you may proceed as soon as you receive an acknowledgement of your Registration.

Linkage of ethics approval to a new Grant

HREC approvals cannot be assigned to a new grant or award (ie those
that were not identified on the application for ethics approval) without confirmation of the approval from the Human Research Ethics Officer on behalf of the HREC.

Best wishes for a successful project.

Associate Professor Alison Ferguson

Chair, Human Research Ethics Committee

For communications and enquiries:

Human Research Ethics Administration

ResearchServices
ResearchOffice
The University of Newcastle
APPENDIX 7: LETTER FOR VILLAGE LEADER, LOMAKUNAURU VILLAGE, PNG

Supervisors (Teachers)
Professors Isabel Higgins & Tina Koch
School of Nursing and Midwifery, Faculty of Health
University Drive, Callaghan, 2308
Telephone: +61 2 4921 6144
Fax: +61 2 4921 6301
Mobile: +61 0419233305
Email address: Isabel.Higgins@newcastle.edu.au

Research Student
Nina Pangiau
Telephone: 02 4921 5585
Fax: 02 4921 6301
Email address: nina.pangiau@studentmail.newcastle.edu.au

Nina Pangiau PNG address
Pacific Adventist University
Private Mail Bag
National Capital District
Papua New Guinea

Mr Lesly Sonos
Head Elder, Lomakunaru Seventh-Day Adventist Church
Mussau Island, New Ireland Province
Papua New Guinea
Date: 1 June 2009
RE: Letter of appreciation

Dear Mr Sonos

I am writing to express my gratitude towards your support (in principle) to use the Lomakunauru community building and the church hall where group meetings with village women who are interested to take part in the research study will be held. As mentioned during our telephone conversation, I am a senior nurse-midwife and lecturer from Pacific Adventist University, Papua New Guinea (PNG). Currently, I am undertaking PhD studies at the University of Newcastle, Australia. My teachers who are helping me in this research study are Professors; Isabel Higgins and Tina Koch. As part of my studies towards this degree, the aim of my research is to work alongside village women from Lomakunauru, PNG to find ways that might help them have better health.

Upon approval of this research by the University of Newcastle Human Research Ethics Committee, to conduct the study in Lomakunauru village, PNG, my plan is to start in July, 2009 to July, 2010. After this, I will return to Australia to write a report of the research study.

This issue will be discussed again with you when I arrive in Lomakunauru village.

Yours faithfully

Nina Pangiau
APPENDIX 8: INFORMATION STATEMENT LETTER FOR PHASE TWO STUDY

Supervisors (Teachers)
Professors Isabel Higgins & Tina Koch
School of Nursing and Midwifery, Faculty of Health
University Drive, Callaghan, 2308
Telephone: +61 2 4921 6144
Fax: +61 2 4921 6301
Mobile: +61 0419233305
Email address: Isabel.Higgins@newcastle.edu.au

Research Student
Nina Pangiau
Telephone: 02 4921 5585
Fax: 02 4921 6301
Email address: nina.pangiau@studentmail.newcastle.edu.au

Nina Pangiau PNG address
Pacific Adventist University
Private Mail Bag
Boroko
National Capital District
Papua New Guinea

Information about the study:
Improving health of women of Papua New Guinea (PNG)
August 11, 2009
(For translation to Pidgin English & Tok Pisin)

You are asked to take part in a study which will be carried out by Nina Pangiau, a doctoral student in the School of Nursing and Midwifery at the University of Newcastle, New South Wales, Australia. The names of her teachers who are helping her are Professors Isabel Higgins and Tina Koch. Nina is a nurse-midwife and teacher who has worked in the hospitals and health centres in cities and towns in PNG for many years.

Why is the study being carried out?
Studies show that every year many women in PNG die while they are pregnant, or when they are giving birth to babies, and also after the babies are born. This study is part of a larger study which will find ways to help women of PNG villages to have good health. The first part of the study was done in
Newcastle, Australia with PNG women. These women already had experiences of pregnancy and giving birth to their babies in PNG before they went to Australia.

The purpose of this research study is to find out your ideas about how women can have good health in PNG, to share some of the important things you talk about with the bosses or health workers in New Ireland, PNG and to help improve the health care for women in all the villages in the province. We would like to know about your experience with your pregnancy and giving birth, and your ideas on how women in villages of PNG can make their health better.

**Who can take part in the study?**

We are looking for Lomakunauru women on Mussau Island in PNG. If you want to take part, you:

- must be 18 years of age or over
- have already had a pregnancy
- can talk in Tok ples or Pidgin English
- must not be pregnant

**What will we ask you to do?**

If you want to take part in the study, we will ask you to:

- Meet with Nina in private, 2 or 3 times to share your story about your pregnancies and your experiences about giving birth in Lomakunauru village, at the health centre or the hospital.
- Your story will be recorded with a tape or digital voice recorder (not video). Nina will type your story after you have finished.
- During the first meeting, Nina will ask you to tell her some things like your age, if you are married and are living with your husband, and whether you work for money. Nina would like to know about the place in PNG where you belong to and the number of times you were pregnant, where you gave birth to your babies, the name/s of the hospital or health centre in PNG where you gave birth and the total number of your children.
- Take part in three or four meetings with other women from Lomakunauru, about 6-8 of them. We hope that you will share your story about your pregnancy and how your baby was born to other Lomakunauru women at the group meetings. After that we will talk about ways to help women of Lomakunauru and other villages of PNG have good health.
- Agree to share some of the important things you talk about with the bosses or health workers and local politicians in New Ireland, PNG, to help improve health care for women in all the villages in the province.

The meeting with Nina will be held in your home, or at another place where you decide to meet. The meeting with other women will be done at a place in which all the women agree to meet. This may be in a community house or church hall.
How much time will it take?

One-to one meetings with Nina will take about one hour on two or three occasions or until you are happy that your story has been shared. The time for the women’s group meeting will be one and half to two hours for about four meetings over two months.

What choice do you have?

Taking part in this research study is your choice. Only women who give their consent or permission, by signing a consent form or having their consent recorded, will be allowed to take part in the study. If you agree to take part and change your mind later for any reason, you can stop at any time. You do not have to give a reason for stopping. If you do so and ask to take out your story, it will be taken out from all recorded interviews as well as in the audio-recorder. The written story will also be taken out from all computer records.

What are the good things about taking part?

We are hopeful that what you share will be used in Lomakunauru village and other villages of PNG to help women have good health especially during pregnancy and at the time of giving birth.
How might you feel when you take part in the study?

While you are taking part in this study and sharing your story of your pregnancy and birth, you may find yourself feeling upset, worried and saddened. If this happens, you will be asked to think about talking to a local village counsellor or the church pastor who may help you put aside these feelings.

How will your name, your story and other things about you be protected?

Everything that you say during the meetings will be kept in private including your real name and age. False names will be used to write the report in the thesis or book and in any other report about the study. At the first group meeting, you will be asked to make sure that every thing that is said inside the group stays inside the group, so that it will not be told to other people. Also, the names of members of the group should not be told to anyone else. This is to make sure that all the ideas that are talked about are kept secret the group.

Where will the report be kept? Will it be burnt eventually? Or thrown away?

The report of the study will be locked in a cupboard in the School of Nursing and Midwifery, University of Newcastle, Australia. It will be kept there all the time when the study is done and up to five years after the study is complete. The teachers and Nina will be the only people to see and read the report at the time of the study. All interview stories and other study reports will be saved and kept on a computer record, on a USB memory stick, thumb drive or in DVD/CD. These are special kinds of computer parts which can save the report of the study carefully. At the end of five years it may be either burnt in the fire or cut into small pieces.

How will the report that is collected be used?

If you agree, your story, or parts of your story may be reported in the thesis or book to be written by Nina. Some of the important things you talk about in the group with other women will be told to the bosses or health workers in New Ireland, PNG to help improve the health care for women in all the villages in the province. If we do, women will not have to die from problems in pregnancy, at the time when they give birth and after the baby has been born.
What kind of report will be given to women about the results of the study?

After the first meeting with each woman and then with group meetings, Nina will provide a short part of your story which is about one and half pages. You will be asked to make changes if you want to. This is to make sure that your story is always in your own words and is true for you. The final thesis or study report will be given to you if you would like.

What do you need to do to take part?

You are asked to read this letter very carefully and try to know or be clear about what it says before you agree to take part. If there is anything you are not sure about, or you want to ask about, feel free to ask Nina your questions.
If you would like to take part, you can tell Nina or the person who gave you the letter. He or she will let her know. She will then come and talk with you and will make a time so you can share your story with her. At this first meeting, Nina will check that you know all the things that are in this letter and ask if you have any questions or comments. When you clearly know about the study and want to take part, you will be asked to write your name and put your signature on the consent or agreement paper before the meeting starts.

Which person can you contact in Lomakunauru village about the study?

You can talk to the leader of the women’s group in Lomakunauru village at any time if you have questions or comments. This person is the one who gave you the first letter that invited you to take part in this research study.

Yours faithfully

Nina Pangiau
Complaints about this study

This study has been approved by the University’s Human Research Ethics Committee. The approval number is H-2009-0167……………………………….

If you have questions or want to know about your rights as a woman in taking part in this study, or you have a complaint about the way in which the study is done, you can tell this to the student, Nina or, if you want to tell another person, you may talk to the leader of the women’s group in Lomakunauru village who is the contact person for this study. If she wants she can contact: The Human Research Ethics Officer, Research office, The Chancellery, The University of Newcastle, University Drive, Callaghan, NSW, Australia. Telephone +61 2 49216333, email: Human-Ethics@newcastle.edu.au
APPENDIX 9: INFORMATION STATEMENT LETTER TRANSLATED TO TOK PISIN

Project Supervisors
Professors Isabel Higgins & Tina Koch
School of Nursing and Midwifery, Faculty of Health
University Drive, Callaghan, 2308
Telephone: 02 4921 6144
Fax: 02 4921 6301
Mobile: 0419233305
Email address: Isabel.Higgins@newcastle.edu.au

Research Student
Nina Pangiau
Telephone: 02 4921 5585
Fax: 02 4921 6301
Email address: nina.pangiau@studentmail.newcastle.edu.au

Nina Pangiau PNG address
Pacific Adventist University
Private Mail Bag
Boroko, National Capital District
Papua New Guinea

Information statement for research study:
Improving health of women in Papua New Guinea (PNG)
11 August, 2009

Tok Pisin Version
Pass long toksave long mekim dispela resech stadi:
Halivim moa gut helt bilong ol meri long Papua Niu Gini (PNG)


Bilong wanem samting na dispela reseh i mas kamap?
Ol sikul pepa soim klia asem plenti meri long PNG i save dai olgeta krismas taim oli kisim bel bilong bebi or long taim oli karim o bihain long ol karim bebi pinis. Dispela resech stadi bai skelim ol kain pasin o rot bilong halivim ol meri insait long Lomakunauru na ol narapela viles long PNG long kisim gutpela helt moa. Nambawan resech stadi mipela mekim pinis long Newcastle wantaim sampela liklik
lain meri bilong PNG. Dispela lain meri oli bin karim pinis bebi long PNG na bihain oli kam daon long Australia. Namba tu resech bai Nina mekim wantaim sampela meri long wanpela viles insait long PNG.

Bikpela tingting long mekim dispela resech stadi em long askim yu long tingting na tokim ol gutpela pasin o rot long halivim ol meri long Lomakunuru viles. Algeta samting yu tokim bai mipela ken toksave long ol bos bilong ol haus sik insait long Niu Ailan provins, PNG so oli ken halivim helt bilong ol meri insait long algeta viles long Niu Ailan provins.

Ol tisa tasol na Nina bai save long ol stori or toktok na ol samting yu bin lukim o pilim taim yu bel long bebi or taim yubin karim. Bai mipela askim yu tu long stori gut long ol gutpela rot long halivim helt bilong ol meri insait long olgeta viles long PNG.

Husat lain bai inap long mekim dispela resech stadi?
Mipela painim ol Lomakunuru meri long Mussau Island, PNG. Sapos yu laik long take part, bai yu:

- mas igat 18 pela krismas pinis na igo moa antap
- mas karim pinis bebi or pikinini bipo
- mas toktok gut long tok ples o tok pisin
- noken gat bel long bebi nau

Wanem samting bai mipela askim yu long mekim?
Sapos yu laik long take part long dispela resech stadi, bai mipela askim yu long:

- bung wantaim sumatin, Nina Pangiau, long tupela o tripela taim long tokim stori bilong yu wantaim em o inap yu tokim gut tru stori bilong yu taim yu bin kisim pikinini insait long viles or haus sik long PNG
- tok orait long sumatin long em bai recodim stori bilong yu insait long teprecoda o wanpela digital voice recorda (tasol ino video) na sumatin bai raitim stori long komputa.
- tokim samting long sumatin long taim bilong miting; Ol dispela samting em, krismas bilong yu, sapos yu marit na nao yu stap wantaim man bilong yu o nogat; sapos yu wok moni na lotu bilong yu. Tu bai yu toksave wanem haus sik or viles yu bin karim ol pikinini bilong yu, hamas taim yu bin bel na karim. Mipela laik save tu hamas pikinini bilong yu i dai pinis na hamas oli stap laip nao.
- take part long foapela miting wantaim liklik grup bilong ol meri bilong Lomakunuru viles (6-8). Sapos yu laik, bai yu ken tokim stori na piling bilong yu taim yu bin karim bipo. Long dispela miting, bai yu ken painim gutpela tingting long halivim ol meri long Lomakunuru na ol narapela viles long PNG long kisim gutpela helt moa.

Ol dispela miting wantaim sumatin bai kamap insait long haus bilong yu o long narapela haus yu bai makim. Ating long komuniti haus o long ol pela sios. Ol narapela lain man o meri bai oli noken harim stori bilong yu.
Hamas hawa long toktok long ol miting?
Ol miting wantaim Nina bai kisim wanpela hawa long tupela o tripela taim inap yu pinisim gut stori o toktok bilong yu. Miting wantaim ol liklik grup meri bai nap long wanpela hawa or tupela hawa na bai nap olsem foapela miting long tupela mun..

Wanem samting bai yu nap long mekim?
Sapos yu laik take part long dispela resech stadi, em laik bilong yu tasol. Ol lmeri oli tok orait na raitim nem bilong ol long wanpela pepa Nina bai givim ol, bai oli ken take part.. Sapos yu no nap long raitim nem bilong yu, tasol yu laik take part, bai sumatin em recodim long teprecoda na bihain miting bai start.


Wanem gutpela samting bai kamap sapos yu take part long dispela resech stadi?
Mipela gat bilif alsem wanem samting yu tokim Nina bai halivim ol meri long Lomakunauru viles na ol narapela peles long PNG long lainim na kisim moa gutpela helt taim ol kisim bel na taim oli karim bebi bilong ol.
Wanem kain piling yu nap kisim taim yu tokim stori bilong yu?

Taim yu tokim stori bilong karim bebi, ating dispela nap long makim yu pilim sorre sapos sampela asua ibin kamap long bebi. Sapos yu pliim alsem, Nina bai askim yu long stopim miting na toksave long yu sapos yu nap long toktok wantaim wanpela kansola bilong peles o sios pasta. Dispela meri o man bai halivim yu long autim piling bilong sorre.

How sait bai nem, stori na ol narapela samting bilong yu bai stap hait?

Algeta samting yu tokim long ol miting bai ol tisa na Nina bai haitim gut tru wantaim nem bilong yu na ol narapela samting olsem krismas. Bai mipela usim wanpela giaman nem long raitim sampela toktok yu tokim insait long ripot o buk.


Bai ripot istap hait we? Bai kukim bihain? Or bai toromoi?

Ripot bilong resech stadi bai lok insait long wanpela stoa room long skul bilong nesing long Necastle Univesity, Australia. Bai istap long dispela hap inap long taim dispela stadi bai pinis, igo long paipela krismas bihain taim stadi em pinis gut tru. Ol tisa tasol na Nina bai oli lukim na ritim ol toktok insait long dispela ripot. Algeta toktok na stori bai oli savim gut insait long komputa o long USB memory stick, thumb drive or in DVD/CD. Ol dispela samting isave wok wankain ol komputa long savim gut olgeta toktok. Taim pinis bilong paipela krismas bai pinis, dispela ripot bai oli kukim or katim liklik tru na toromoi.

Wanem bai mekim wantaim dispela resech stadi ripot?

Sapos yu laik, sampela hap long stori bilong yu bai Nina raitim insait long ripot o buk bilong em. Sampela gutpela tingting yu tokim aut wantaim ol narapela meri bai ol toksave long ol boss bilong ol helt wokas insait long New Ireland, PNG so ol bai halivim na kamapim gutpela sindaon na helt bilong ol meri long ol viles long provins Sapos yu mi mekim dispela, plenti meri bai noken dai taim ol gat bel na taim oli karim bebi.
Wanem kain ripot bilong dispela stadi bai ol meri kisim?

Taim pes miting wantaim wanwan meri and tu wantaim liklik grup bilong ol meri, Nina bai givim sotpela stori emi raitiim long pepa na givim igo long ol meri. Em bai askim yu ol meri long mekim senis long stori sapos oli laik. Dispela imas kamap long soim klia olgeta toktok insait long stori bilong ol meri. Las pela ripot bilong dispela resech stadi bai yu ken kisim sapos yu laikim.

Wanem samting bai yu mekim long take part?


Sapos yu laik take part, you ken tokim Nina or dispela meri husait i bin givim nambawan pass long yu. Em bai toksave long Nina na em bai kam lukim yu na yutupela bai makim taim long bung na yu bai tokim stori bilong yu long em. Taim yutupela mekim nambawan bung, Nina bai askim yu long ol toktok insait long dispela pass long sekim sapos yu save pinis long ol. Em bai askim sapos yu gat sampela askim o toktok. Taim em lukim alsem yu save gut pinis long ol toktok, em bai askim yu long raitim nem bilong yu na mekim mak bilong yu long tok orait pepa o recodim long teprecoda na bihain miting bai start.

Husat meri yu nap lukim long Lomakunauru long toktok long dispela stadi?

Yu ken toktok wantaim lida bilong grup bilong ol meri long Lomakunauru viles eni taim sapos yu gat askim o toktok long tokim em. Dispela meri em bin givim yu nambawan pass long yu na em askim yu long take part long dispela resech stadi.

Tenk yu.

Nina Pangiau
Toktok bilong dispela resech stadi

Dispela resech wanpela komiti nem bilong em, Human Research Ethics Committee, em tok orait pinis long em, Tok orait namba, [insert the protocol reference number which will be identified in the written acknowledgement of your application ].

Sapos yu gat kainkain tingting bilong rait bilong yu taim yu take part long dispela resech stadi, o sapos yu gat komplen long wanem kain pasin sumatin em mekim dispela resech, yu ken tok save long em. Tasol sapos yu laik toksave long narapela meri, yu ken tokim long lida bilong ol meri long Lomakunauru viles. Sapos em laik bai rait long Dr Lalen Simeon o Dr Jennifer Litau long Pacific Adventist University, Private Mail Bag, Boroko, National Capital District, PNG. Lalen_Simeon@pau.ac.pg, Jennifer_Litau@pau.ac.pg; Telephone 328 0200. Wanpela long dispela tupela meri bai rait long Ethics committee long dispela address, na telepon namba istap long hia: The Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan NSW 2308, Australia, telephone +61 2 49216333, email Human-Ethics@newcastle.edu.au.
APPENDIX 10: INFORMATION LETTER TRANSLATED TO MUSSAU LANGUAGE

Project Supervisors
Professors Isabel Higgins & Tina Koch
School of Nursing and Midwifery, Faculty of Health
University Drive, Callaghan, 2308
Telephone: 02 4921 6144
Fax: 02 4921 6301
Mobile: 0419233305
Email address: Isabel.Higgins@newcastle.edu.au

Research Student
Nina Pangiau
Telephone: 02 4921 5585
Fax: 02 4921 6301
Email address: nina.pangiau@studentmail.newcastle.edu.au
PNG address
Pacific Adventist University
Private Mail Bag
Boroko, National Capital District, PNG

Information statement for research study:

Improving health of women of Papua New Guinea (PNG)

11 August, 2009

Tok Ples Version

Uru-ngai eteva tani apasunga mata inagari:

Sausi vause atoa tani gha masi nitoka eh Papua Niu Gini (PNG)

Ama-mi koko-lo-mio tani nge-lei loa teva oi-ha tani voto tani pae salana tani sausi vause atoa.. Ara-righi ete-ai ta, Nina Pangiau me agi sisilu-ku eh Newcastle University, Australia. Kapungu tisa nga lua ta Profesa Isabel Higgins me Tina Koch. I-laluia voroi lalu uu-gu ta Newcastle University eh Australia tani tau-lau aloma-sa-nga ta-le tau-si-kulu, nogina nesi etoa. Nina nesi-a me e tau-lao alo-masa-ga tale tau-sikulu etoa e PNG. Te a-ngi ungula ta-le namu hausiki etoa isa e PNG.

Mausi sa me ami alona tani nge-lei loa teva oia voto?

Uru-gai e apa-suga va oroi eh-ili vause e mate-mate , tale kate-ai ni-nama-nama nau eteva la su-su-nuku me te nau la mo-molena ta-le natuira aliki etoa.
Ami aloana tani pae kasina masi sa-lana tani sausi vause atoa e PNG tani ga masina nitoka. Nina e aloana tani no-go unemim kiukiu nau am-ge sunukula me nau am ge
molena tale natu-imim ali di raraina toa. Me te, ami aloana tani kila na-na-imim va valua rigi salana awe vause atoa la aimulusi te me la ge lei me la rau mene ate-atea isiki me la raumene mata nau la sunuku meh molena.

**Sa tau-matu eroro tani ge-lei loa teva oia voto?**
Amami pae-pae rigi vause ghe Lomakunauru e Mussau, PNG. Marova ualoana tani usi tani kiuki, awe:

- Unem ni-na-mana-ma er-roro va kasa ga ulu, me ga itu me esae teepona. –
- Angu ge sunukula me molena ta-le teva rara-ina ali di
- Uh-kil-kila tani aipoa tale inagari e Mussau, me samasa-vau
- Karika va umene sunuku isao-ia.

**Sa teva awe ami alo-ana va uge-leia?**
Marova u alona tani kiuki, awe u:

- Tara Nina Pangiau no-ga, me u ukiuki teia. Awe eroro va ga-lua o kotolu ata awe amalu sama-ita-wa, me elomo-se ta u aulia nga kappa-ili kiukiium ate-na.
- Unem kiukiui eteia aweh Nina eh teipimia ta-le natu recoda-ari-gi. Karika va vidio ateva
- Nau ualona tani kiu-kiu te Nina, awe ta-le ai-tiu-tiu e kolomio tani aulia isa-toko voto; gai-sae anem ni-na-mana-ma, amalu toka toka-itawa me tai-tanim ateva, teva woko –om tani ga vilikiveu, nga isa voroi natum ali di uge molena-la eta-na. Ara-rina teia, masaliki eteia, hausik uge molena-la etana. ga-isa natum ali di age matela me ga isa e toka toka nau-ga ine
- Awe usama te Nina me te kasina vause, Lomakunauru er-ro-ro gao-nomo o ga-itu (6-8), ero-ro va kotolu o ga-ti-a-ta Ami aloana va am kiu-kiu-ah nau-ta am ge susu-nuku me molena-la. Me awe am po-a rigi-masi salana tani sausi vause atoa e Lomakunaur meh mene kasina masaliki eh PNG tani ga masi nitoka me ai-sa-usi.
- Awe am masi-masi tani aulia masi salana ta-le na-mu-ga toa tau-matu ta-le govanami eh Niu Ailan, PNG, tani sausi emasina vause atoa talemasaliki ekapa-toa i-sa-eh Niu Ailan provins. Awe io me Nina no-ga awe maulu- kiu-kiu ta-ga nuem o ta-le teva pae ale u-alo-ana. Vause atoa awe la aipoa te ta-le teva ale ila alo-ana me, karika rigi oa tau-matu awe la usi tani no-go ina-gari la aulia.

**Valua alu-se-ni- kiu-kiu eh ita-wa?**
Nau-eteva kateva no-go vause e kiu-kiu the Nina, awe ga kateva a-wa. Awe la-lu roro tani kiuki eroro ta galua o kotolu ata o lo-mose ta vause ateva e karasila tani poa kiuki na teia.

Nau oro vause atoa la-toka itawa tani kiukiui, awe-ga-lua awa eroro ta ga-ti-ata ta me eroro ghalua ulana.

**Sa-teva u-roro tani ge-lei?**
Marova ua-loana tani-kiuki me awena u-alona tani ru, i-eh mama-sina te. Urau-mene aulia ta Nina va mau-sisa me ua-loana tani ru. Me marova u alo-ana tani ga velu kiu-kium, awe Nina e senu-velu ta-le recoda, ta-le komputa, me urugai te.

Sa rigi masi voto aweh lutu marova ughu-si tani sama o kiukiu?
Ami alo-ana va inagari u-aulia awe sausi vause atoa eh Lomakunauru, me te tale mene kasina pae masaliki e PNG, tani sausila tani ga masi nitoka nau la sunuku me nau la molena.

Valua u awe u atea-tea nau-ta u aulia kasina inagari me kiukiu um?
Na u-aulia kiu-kium ateia, nau uge sunuku-la me molena-la, koti awe uroro tani a-te-a-te-a ni-a lo-usi-usi. Marova uatea-atea ngga valu o, awe Nina ekolomio marova ua-loa-na tani tara kateva taumatu e Lomakunauru awe sama-teio, no-gina sios pasta me aweh esau-sio me urau mene alo-usi-usi.

Valua awe-ama-mi aisulia ararim a-teai, kiukiu-um me mene kasina-kalum voto?
Isa kap-paili inagari me kiuki u-aulia, awe ami aisulia ga masinaili me te ararima teh ai. Arari kamena te awah ami pitia ta-le uru-gai eteva me te ta-le vuku eteva. Nau aitiu-tiu tani toka-itawa te mene kasina vause tani kiukiu, awe Nina e poa ta masinili ta-le vause atoa va isa-kapaili inagari la aulia, karika la mene aulia se ta-le kasina pae taumatu. Te larau nene ase arari-ra vause atoa tale kasina pae tau-mata-tu. Varova vause atoa la aimalusi teh isao-isia inagari, katoa pae tau-matu karika awela kila kiukiu.

Awe ea-loi ami aitoka kiukiu? Awe ami tu awena? Awe ami sau-velu?
Isa-kapa kiukiu awe ami atoka so ta-le kuni-kamete ateva me ami loko-ru-ga ta-le sikulu nesi eteva e Newcastle University, Australia. Awe etoka nau Nina e-pitipiti uma urugai me lomose ta ela gha ga-limae ni-na-mana-ma. Nina no-ga meh kapuna tisa nga lua, aweh la tara, meh la poso isa-kap-pa inagari me kiuki me lo-te ina-gari ta-le komputa. Vara ga limae ni-na-mana-ma eru, me awe la tu ta-le kura teia o la sai-putu-putu.

Sate-va ami gele–ia ta-le kiukiu ami no-ho?
Marova u-alono, Nina awe pitii-sio kasina ina-garim ta-le una-buku eteva. Kasina masi inagari vause atoa am poa, awe ami poa lao ta-le namu o aitoi-toi tau-mata-tu atoa la aitara hauisiki e Niu Ailan, PNG, me awe laro-ro tani sau-si e masina vause atoa ta-le masa-liki eka-paili ta-le Niu Ailan provins. Marova ita sausi, vaisi atoa karika aweh la pae vako-vako nau la sunuku, la molena me awena nau aliiki an-ge lutu-la.
Sa-ase ina-gari me ripoti awe vause atoa la roro-tani tara?

Isa ta-le aitiu-tiu tani tara me kiukiui te Nina me ta-le isa kapaili inagari, awe Nina epiti emasina kiukiui ta-le kati-kerigi pepa, me e tau-lao ta-le vause or ta-le vause-atoa, meh la tara ina-gari la ghe po-ala Te Nina awe kolomi vause atoa tani piti-ema-sina kiukiui, marova la alo-ana. Mausina va isa-kapa ili kiukiui me inagari la poa awe me te kiukiui ekapaili e ta-ni ko-rona.

Marova vause atoa la aloanoa, awe Nina eta-lao teva una buku e piti ta-le vause atoa.

Sa-teva uroro tani nge-leia marova ua-loana tani kiukiui?

Ami alona va uka-rasii tani tara rughai etikirigi oia me hu kila masi-naili mata ina gari etana, me awena uvira na-na marova ua-loana tani usi tani sama o tani kiukiui o karika. Kasina inagari utam kila, aweh ukolomi ta Nina me awe aulia masinaili etam.

Marova ualoana tani kiukiui hu aulia ta-le tau-matu ga ateva ge ta-watu aitiu-tiu etikirigi urugai etam.


Me te uroro tani kolomia ta-le kasina voto utam kila kila. Nau-ta u-kila masina, Nina awe aulia meh u piti ararim ateia tale katikigi urugai me a wena malu tiwa tani kiukiui eitawa.

Sa-tau-mata-tu nga ateva uro-ro tani sama te-ia e Lomakunauru tani aulia na-nam?

Uroro tani sama te vause ateva e nanamu tale vause atoa e Lomakunauru tani aulia na-nam or voto ualoana tani kolomia. Loa teva oia vause ghe ta watu sio aitiu-tiu etikiri urughai etam meh ghe kolmiola tani usi tani kiukiui the Nina.

Ararigi ta,

Nina Pangiau

Inagari utani kila meh aulia na-nam varo se-sa

Universiti Research Ethics Committee ange wela va masinaia tani ngelei loa teva ioa voto (stadi).

Marova uta tara va karika Nina eh ghelei eh masina loa teva oia voto o stadi, uroro tani aulia etana.

Marova ualoa, uwaui lia ta vause ateva eh nana mu ta vause atoa eh Lomakunauru. Me varo vah ealoana aweh upiti piti sio tah: Dr Lalen Simeon o Dr Jennifer Litau, Pacific Adventist University, Private Mail Bag, Boroko, National Capital District, PNG, Email: Lalen_Simeon@pau.ac.pg / Jennifer_Litau@pau.ac.pg

Kateva etai rarua vause atoa, aweh piti piti sio ta

The Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan NSW 2308, Australia, telephone +61 2 49216333, email Human-Ethics@newcastle.edu.au.
IMPROVING THE HEALTH OF WOMEN IN LOMAKUNAURU VILLAGE, PAPUA NEW GUINEA!

You may like to take part in a study to help women in Lomakunauru village improve their health.

The study is about hearing experiences of women giving birth to their babies through your stories of pregnancy and birth in PNG.

It will also look at ways to improve women’s general health.

CONTACT

If you are interested in taking part or would like to know more about the study, please contact Nina Pangiau.
APPENDIX 12: POSTER TRANSLATED IN TOK PISIN FOR PHASE TWO STUDY

HALIVIM MOA GUT HELT BILONG OL MERI LONG LOMAKUNAURU VILES, PAPUA NIU GINI (PNG)!

Yu nap long take part long dispela resech stadi long halivim ol meri long Lomakunau viles long kamarim gutpela helt bilong ol.

Dispela resech stadi bai harim ol kain samtong ol meri pilim o lukim taim ol bin kism bil na kaim bebi bilong ol. Bai yu tokim wanwan story bilong yu taim yu kism bebi long PNG.

Em bai sikelim tu ol gutpela rot o pasim bilong halivim gut helt bilong ol meri

TOKSAVE

Sapos yu laik take part, o yu laik save moa long dispela resech stadi, pis toksave long Nine Pangiau.
APPENDIX 13: POSTER TRANSLATED TO MUSSAU LANGUAGE

NI-GE-LEI E MASINA TOKATOKA VAUSE ATOA TA-LE MASALIKI E LOMAKUNAURU, PAPUA NIU GINI

Eroro va u ngelei loa teva oia talo voto tani pai ni-ai sausi a vause atoa e Lomakunauru, me er sausila tani nga masi nitoka me maulue.

Loa teva oia voto awe sausi tani no-ngo kiukiua ira vause atoa nauta la nge sunukula me nau lagne mole- ana-la natuir-a-toa.

Awe sausi te tani pai masi salana tani sausi vause atoa me la-nga masini toka me maulue isa oia e PNG.

SAMA TE
Ma-rova uh aloana tani kiuki, me te, u aloana tani ngo-gno mene rigi ina-gnari, usama te, Nina Pangiau.
Consent form for study project:

Improving health of women of Papua New Guinea (PNG)

1 June, 2009
(For translation to Pidgin English & Tok Pisin)

I agree to take part in the study that is stated above and give my permission or consent freely.
I know that the study will be done as it is talked about in the letter of the Information Statement.
I have a copy of that and will keep it.
I know that I can stop from taking part in the study at any time and do not have to give any reason for stopping.
I know that I can choose if I want to take part or not to take part in the meetings with other Lomakunauru women after I have finished with my meetings with the student, Nina Pangiau.
I know that all my personal things about myself like my name, age and number of children will not be given or shared with other people but it will stay with Nina and her teachers.
I agree to: (Please circle yes or no)

- meet with the research student (Nina Pangiau) on 2 to 3 times or until my story has been told and want my story to be recorded with a tape recorder and typed on a computer by the research student. Yes / No
- take part in three or four meetings with a small number of other Lomakunauru women Yes / No
- Have part of my story in the book (thesis) or study report Yes / No
I have asked questions that the student has answered very well to me and I am satisfied.

Print Name:____________________________
Signature:____________________________
Date: ________________________________
Consent form for research project:
Improving health of women of Papua New Guinea (PNG)
28 July, 2009

TOK PISIN VERSION

TOK ORAIT PEPA LONG MEKIM RESECH STADI

Halivim gut ol meri long kisim gutpela helt long Papua Niu Gini (PNG)

Mi tok orait long take part long dispela research stadi, nem bilong en istap antap na mi laik givim  dispela tok orait bilong mi em i pri.

Mi save olsem dispela research stadi bai bihainim ol toktok istap long infomesin pass na mi holim wanpela kopi o pepa long en mi holim istap.

Mi save olsem mi nap long stop long mekim dispela stadi, o mi ken pinis ani taiim. Em laik bilong mi.

Mi save olsem em laik bilong mi sapos mi laik take part long wan wan stori.o wantaim liklik grup bilong ol meri long stori wantaim.

Mi save olsem ol stori mi tokim bai istap namel tasol long mi wantaim sumatin, Nina Pangaiu na ol tisa bilong em.
Mi tok orait long: (Plis makim Yes or Nogat)

- Bung wantaim sumatin, Nina Pangiau, tupela or tripela taim o inap mi tokim gut stori bilong mi na recordim stori bilong mi insait long taip o digital recoder
  Yes / Nogat
- Bung wantaim narapela liklik lain meri na stori wantaim ol
  Yes /
  Nogat
- Sampela hap bilong stori bilong mi bai Nina iraitim long pepa o buk bilong em
  Yes /
  Nogat

Algeta toktok mi askim igo long sumatin, em bekim ol gutpela tru na mi hamamas.

Nem bilong mi__________________________

Mak bilong mi__________________________

Dei____________________________________
APPENDIX 16: CONSENT FORM TRANSLATED TO MUSSAU LANGUAGE

Project Supervisors
Professors Isabel Higgins & Tina Koch
School of Nursing and Midwifery, Faculty of Health
University Drive, Callaghan, 2308
Telephone: 02 4921 6144
Fax: 02 4921 6301
Mobile: 0419233305
Email address: Isabel.Higgins@newcastle.edu.au

Research Student
Nina Pangiau
Telephone: 02 4921 5585
Mobile: 0432 157 483
Fax: 02 4921 6301
Email address: nina.pangiau@studentmail.newcastle.edu.au

PNG Address
Pacific Adventist University
Private mail bag,
Boroko,
National Capital District, PNG

Consent form for study project:
Improving health of women of Papua New Guinea (PNG)

Version 1 June, 2009

TOK PLES Version
Uru-gnai eteva tani poa va masina tani sausi ta-ni kiukiu:
Sau-si masina vause atoa me la gha masina nitoka me maulue isa e Papua New Guinea (PNG)

Agi masi-masi tani usi tani gelei loa teva oi-ah risech stadi me na-nagi awe va masi naili te poli ag-gi masi masi eli-li..

Agi kila-kila va loa teva oia voto o pitipiti awe la ai-mulusi te inagari ta-le info mesin urru-gai. Agi unu-si etoka katikiri tana uru-gai.

Agi kila-kila vah aroro ta-ni ru ta-ni ngelei loa teva oia stadi, e ma-masina the. Aloani agi. Nata aru arau mene aulia va mausisa me agi ru-la.

Agi kila-kila va marova agi aloana ta-ni usi tani kiukiu teh mene kasina vause atoa o karika nau-ta agi ru tani kiukiu te Nina Pangiau.

Agi kila kila va unegi kiukiu voroi awe Nina me kapuna toa ngoga lai karasi ta-ni aisulia parasi.
Agi aulia va masina tani: U piti va uweh o karika
ai-sowii te Nina galua o kotolu ata o lomo-se agi karasila tani poa kiuki gi eteai awe Nina e gha kiu-kiu gi ateai ta-le ai-nogo-nogo ateva meh te aweh pato-iah ta-le komputa ateva
Uwe/Karika
awe agi usi tani kiuki gi mene kasina vause e Lomakunauru eroro va kotolu o ghata nau. Agi kiuku te kasina vause e Lomakunauru eroro kotolu o gha-tiata
Uwe/Karika
Kasina ta-ni kiuki gi poa, awe Nina eroro tani piti si o ta-le una buku eteva
Uwe/Karika
Agi kolo-mila kasina voto ta Nina me e karasila ta-ni aulia tau mae etagi. Mau-sina agi masi-masi.
Piti ara-rim atei : ____________________________
U-aikavila ararim atei: ____________________________
Nau eteva ga ine: ____________________________
Letter to invite women to take part in a study at Lomakunauru:

Improving health of women of Papua New Guinea (PNG)

My name is Nina Pangiau. I am nurse-midwife and teacher from PNG. Now I am doing my study through research at the University of Newcastle, Australia, in order to get a doctoral degree. Part of this course is to do a study in Lomakunauru village, Mussau Island, PNG.

There are two reasons for the study. First is to talk with women who are willing to talk to me in private. I will ask each one to share her story about pregnancy, giving birth to a baby and after. After that, those women that are interested will be asked to share a story about their pregnancy and birth with a few other women from Lomakunauru. Second is to talk about ways to improve health of women in Lomakunauru and other villages of PNG.

If you are interested in taking part in this study and want to tell other women who may also like to take part, please ask them to talk to me.

Yours faithfully

Nina Pangiau
APPENDIX 18: INFORMATION LETTER TRANSLATED TO TOK PISIN

Project Supervisors
Professors Isabel Higgins & Tina Koch
School of Nursing and Midwifery, Faculty of Health
University Drive, Callaghan, 2308
Telephone: 02 4921 6144
Fax: 02 4921 6301
Mobile: 0419233305
Email address: Isabel.Higgins@newcastle.edu.au

Research Student
Nina Pangiau
Telephone: 02 4921 5585
Fax: 02 4921 6301
Email address: nina.pangiau@studentmail.newcastle.edu.au

Nina Pangiau PNG address
Pacific Adventist University
Private Mail Bag
Boroko, National Capital District
Papua New Guinea

Information statement for research study:
Improving health of women in Papua New Guinea (PNG)
11 August, 2009

Tok Pisin version

Pass long toksave long mekim dispela resech stadi:
Halivim moa gut helt bilong ol meri long Papua Niu Gini (PNG)


Bilong wanem samting na dispela resesh i mas kamap?
Ol sikul pepa soim klia alesm plenti meri long PNG i save dai olgeta krismas taim oli kisim bel bilong bebi or long taim oli karim o bihain long ol karim bebi pinis. Dispela resech stadi bai skelim ol kain pasin o rot bilong halivim ol meri insait long Lomakunauru na ol narapela viles long PNG long kisim gutpela helt moa. Nambawan resech stadi mipela mekim pinis long Newcastle wantaim sampela liklik lain meri bilong PNG. Dispela lain meri oli bin karim pinis bebi long PNG na bihain oli kam daon long Australia. Namba tu resech bai Nina mekim wantaim sampela meri long wanpela viles insait long PNG.
Bikpela tingting long mekim dispela resech stadi em long askim yu long tingting na tokim ol gutpela pasin o rot long halivim ol meri long Lomakunauru viles. Algeta samting yu tokim bai mipela ken toksave long ol bos bilong ol haus sik insait long Niu Ailan provins, PNG so oli ken halivim helt bilong ol meri insait long algeta viles long Niu Ailan provins.

Ol tisa tasol na Nina bai save long ol stori or toktok na ol samting yu bin lukim o pilim taim yu bel long bebi or taim yubin karim. Bai mipela askim yu tu long stori gut long ol gutpela rot long halivim helt bilong ol meri insait long olgeta viles long PNG.

**Husat lain bai inap long mekim dispela resech stadi?**

Mipela painim ol Lomakunauru meri long Mussau Island, PNG. Sapos yu laik long take part, bai yu:

- mas igat 18 pela krismas pinis na igo moa antap
- mas karim pinis bebi or pikinini bipo
- mas toktok gut long tok ples o tok pisin
- noken gat bel long bebi nau

**Wanem samting bai mipela askim yu long mekim?**

Sapos yu laik long take part long dispela resech stadi, bai mipela askim yu long:

- bung wantaim sumatin, Nina Pangiau, long tupela o tripela taim long tokim stori bilong yu wantaim em o inap yu tokim gut tru stori bilong yu taim yu bin kisim pikinini insait long viles or haus sik long PNG
- tok orait long sumatin long em bai recodim stori bilong yu insait long teprecoda o wangepela digital voice recorda (tasol ino video) na sumatin bai raitim stori long komputa.
- tokim samting long sumatin long taim bilong miting; Ol dispela samting em, krismas bilong yu, sapos yu marit na nao yu stap wantaim man bilong yu o nogat; sapos yu wok moni na lotu bilong yu. Tu bai yu toksave wanem haus sik or viles yu bin karim ol pikinini bilong yu, hamas taim yu bin bel na karim. Mipela laik save tu hamas pikinini bilong yu i dai pinis na hamas oli stap laip nao.
- take part long foapela miting wantaim liklik grup bilong ol meri bilong Lomakunauru viles (6-8). Sapos yu laik, bai yu ken tokim stori na piling bilong yu taim yu bin karim bipo. Long dispela miting, bai yu ken painim gutpela tingting long halivim ol meri long Lomakunauru na ol narapela viles long PNG long kisim gutpela helt moa.

Ol dispela miting wantaim sumatin bai kamap insait long haus bilong yu o long narapela haus yu bai makim. Ating long komuniti haus o long ol pela sios. Ol narapela lain man o meri bai oli noken harim stori bilong yu.
**Hamas hawa long toktok long ol miting?**

Ol miting wantaim Nina bai kisim wanpela hawa long tupela o tripela taim inap yu pinisim gut stori o toktok bilong yu. Miting wantaim ol liklik grup meri bai nap long wanpela hawa or tupela hawa na bai nap olsem foapela miting long tupela mun..

**Wanem samting bai yu nap long mekim?**

Sapos yu laik take part long dispela resech stadi, em laik bilong yu tasol. Ol lmeri oli tok orait na raitim nem bilong ol long wanpela pepa Nina bai givim ol, bai oli ken take part.. Sapos yu no nap long raitim nem bilong yu, tasol yu laik take part, bai sumatin em recodim long teprecoda na bihain miting bai start.


**Wanem gutpela samting bai kamap sapos yu take part long dispela resech stadi?**

Mipela gat bilif alsem wanem samting yu tokim Nina bai halivim ol meri long Lomakunauru viles na ol narapela peles long PNG long lainim na kisim moa gutpela helt taim ol kisim bel na taim oli karim bebi bilong ol.

**Wanem kain piling yu nap kisim taim yu tokim stori bilong yu?**

Taim yu tokim stori bilong karim bebi, ating dispela nap long makim yu pilim sorre sapos sampela asua ibin kamap long bebi. Sapos yu pliim alsem, Nina bai askim yu long stopim miting na toksave long yu sapos yu nap long toktok wantaim wanpela kansola bilong peles o sios pasta. Dispela meri o man bai halivim yu long autim piling bilong sorre.

**How sait bai nem, stori na ol narapela samting bilong yu bai stap hait?**

Algeta samting yu tokim long ol miting bai ol tisa na Nina bai haitim gut tru wantaim nem bilong yu na ol narapela samting olsem krismas. Bai mipela usim wanpela giaman nem long raitim sampela toktok yu tokim insait long ripot o buk.

Long taim bilong grup mitigings, bai sumatin askim yu long nambawan miting alsem, noken tokaut long ol toktok o stori long ol narapela man o meri. Noken kolin tu nem bilong ol long ol man o meri. Sapos yu bihainim gut dispela samting, olgeta toktok bai stap tasol long ol grup.
Bai ripot istap hait we? Bai kukim bihain? Or bai toromoi?

Ripot bilong resech stadi bai lok insait long wanpela stoa room long skul bilong nesing long Necastle University, Australia. Bai istap long dispela hap inap long taim dispela stadi bai pinis, igo long paipela krismas bihain taim stadi em pinis gut tru. Ol tisa tasol na Nina bai oli lukim na ritim ol toktok insait long dispela ripot. Algeta toktok na stori bai oli savim gut insait long komputa o long USB memory stick, thumb drive or in DVD/CD. Ol dispela samting isave wok wankain ol komputa long savim gut olgeta toktok. Taim pinis bilong paipela krismas bai pinis, dispela ripot bai oli kukim or katim liklik tru na toromoi.

Wanem bai mekim wantaim dispela resech stadi ripot?

Sapos yu laik, sampela hap long stori bilong yu bai Nina raitim insait long ripot o buk bilong em. Sampela gutpela tingting yu tokim aut wantaim ol narapela meri bai ol toksave long ol boss bilong ol helt wokas insait long New Ireland, PNG so ol bai halivim na kamapim gutpela sindaon na helt bilong ol meri long ol viles long provins Sapos yu mi mekim dispela, plenti meri bai noken dai taim ol gat bel na taim oli karim bebi.

Wanem kain ripot bilong dispela stadi bai ol meri kisim?

Taim pes miting wantaim wanwan meri and tu wantaim liklik grup bilong ol meri, Nina bai givim sotpela stori emi raitiim long pepa na givim igo long ol meri. Em bai askim yu ol meri long mekim senis long stori sapos oli laik. Dispela imas kamap long soim klia olgeta toktok insait long stori bilong ol meri. Las pela ripot bilong dispela resech stadi bai yu ken kisim sapos yu laikim.

Wanem samting bai yu mekim long take part?


Sapos yu laik take part, you ken tokim Nina or dispela meri husait i bin givim nambawan pass long yu. Em bai toksave long Nina na em bai kam lukim yu na yutupela bai makim taim long bung na yu bai tokim stori bilong yu long em. Taim yutupela mekim nambawan bung, Nina bai askim yu long ol toktok insait long dispela pass long sekim sapos yu save pinis long ol. Em bai askim sapos yu gat sampela askim o toktok. Taim em lukim asem yu save gut pinis long ol toktok, em bai askim yu long raitim nem bilong yu na mekim mak bilong yu long tok orait pepa o recodim long teprecoda na bihain miting bai start.
Husat meri yu nap lukim long Lomakunauru long totok long dispela stadi?
Yu ken totok wantaim lida bilong grup bilong ol meri long Lomakunauru viles eni taim sapos yu gat askim o totok long tokim em. Dispela meri em bin givim yu nambawan pass long yu na em askim yu long take part long dispela resech stadi.

Tenk yu.

Nina Pangiau
APPENDIX 19: INFORMATION STATEMENT LETTER IN MUSSAU LANGUAGE

Project Supervisors
Professors Isabel Higgins & Tina Koch
School of Nursing and Midwifery, Faculty of Health
University Drive, Callaghan, 2308
Telephone: 02 4921 6144
Fax: 02 4921 6301
Mobile: 0419233305
Email address: Isabel.Higgins@newcastle.edu.au

Research Student
Nina Pangiau
Telephone: 02 4921 5585
Fax: 02 4921 6301
Email address: nina.pangiau@studentmail.newcastle.edu.au

PNG address
Pacific Adventist University
Private Mail Bag
Boroko, National Capital District, PNG

Information statement for research study:
Improving health of women of Papua New Guinea (PNG)
11 August, 2009
Mussau Version

Uru-gai eteva tani apasunga mata inagari:
Sausi vause atoa tani ga masi nitoka e Papua Niu Gini (PNG)
Ama-mi koko-lo-mio tani nghe-lei loa teva oi-ha tani voto tani pae salana tani sausi vause atoa.. Ara-righi ete-ai ta, Nina Pangiau me agi sisi-ku-lu eh Newcastle University, Australia. Kapungu tisa nga lua ta Profesa Isabel Higgins me Tina Koch. I-lalua voroi lalu uu-gu ta Newcastle University eh
Australia tani tau-lau aloma-sa-nga ta-le tau-si-kulu, nogina nesi etoa. Nina nesi-a me e tau-lao aloma-gha tale tau-sikulu etoha eh PNG. Te a-nge ungula ta-le namu hausiki etoa isah e PNG.

**Mausi sa meh ami alona tani nge-lei loa teva oia voto?**

Uru-gai e apa-sugha va oroi e-ili vause e mate-mate, tale kate-ai ni-nama-nama nau eteva la su-su-nuku me te nau la mo-molena ta-le natuira aliki etoa.

Ami aloana tani pae kasina masi sa-lana tani sausi vause atoa eh PNG tani ga masina nitoka. Nina e aloana tani no-gho unemim kiuki nu nau am-ga sunukula me nau am nge molena tale natu-imim aliki raraina toa. Me te, ami aloana tani kila na-na-imim va valua rigi salana aveh vause atoa la aimulusi teh me la nge lei me la rau mene ate-atea isiki me la raumene mata nau la sunuku me molena.

**Sah tau-matu eroro tani ge-lei loa teva oia voto?**

Amami pae-pae rigi vause ge Lomakunauru e Mussau, PNG. Marova ualoana tani usi tani kiuki, awe:

- Unem ni-na-mana-ma er-roro va kasa ga ulu, me ga itu me esae te epona. –
- Angu ge sunukula me molena ta-le teva rara-ina aliki
- U-kil-kila tani aipoa tale inagari e Mussau, meh samasa-vau
- Karika vah umene sunuku isao-ia.

**Sa teva awe ami alo-ana va uge-leia?**

Marova u alona tani kiuki, awe u:

- Tara Nina Pangiau no-gha, me hu ukiuki teia. Awe eroro va ga-lua o kotolu ata awe amalu sama-ita-wa, meh elomo-se ta u aulia nga kappa-ili kiuki um ate-na.
- Unem kiuki eteia awe Nina e teipimia ta-le natu recoda-ari-gi. Karika va vidio ateva
- Awe usama te Nina me te kasina vause, Lomakunauru er-ro-ro gao-nomo o ga-itu (6-8), ero-ro va kotolu o ga-ti-a-ta Ami aloana va am kiu-kiu-a nau-ta am ge susu-nuku me molenala. Meawe am po-a rigi-masi salana tani sausi vause atoa e Lomakunaur meh mene kasina masaliki eh PNG tani ga masi nitoka me ai-sa-usi.
- Aweh am masi-masi tani aulia masi salana ta-le na-mu-gha toa tau-matu ta-le govanami e Niu Ailan, PNG, tani sausi emasina vause atoa talemasaliki ekapa-toa i-sa-eh Niu Ailan provins.
Awe io me Nina no-gha aue mauulu- kiu-kiu ta-gha nuem o ta-le teva pae ale u-aló-ana. Vause atoa aue la aipoa te ta-le tevah ale ila aló-ana me, karika rigi oa tau-matu aueh la usi tani no-go ina-gari la aulia.

**Valua alu-se-ni- kiu-kiu e ita-wa?**

Nau-eteva kateva no-go vause e kiukiuki the Nina, awe ga kateva a-wa. Awe la-lu roro tani kiukiuki eroro ta galua o kotolu ata o lo-mose ta vause ateva eh karasila tani poa kiukiuki na teia. Nau oro vause atoa la-toka itawa tani kiukiuki, awe-ga-lua awa eroro ta ga-ti-ata ta me eroro galua ulana.

**Sah-teva u-roro tani ge-lei?**


Marova ua-loana tani-kiukiuki me awena u-alona tani rhu, i-e mama-sina te. Urau-mene aulia ta Nina va mau-sisa meh ua-loana tani ru. Me marova u alo-ana tani gha velu kiu-kiium, aueh Nina e senu-velu ta-le recoda, ta-le komputa, me urughai te.

**Sa rigi masi voto aue lutu marova ughu-si tani sama o kiukiuki?**

Ami alo-ana va inagari u-aulia aue sausi vause atoa e Lomakunauru, me te tale mene kasina pae masaliki e PNG, tani sausila tani ga masi nitoka nau la sunuku me nau la molen.

**Valua u aue u atea-tea nau-ta u aulia kasina inagari me kiukiuki um?**

Nau uh-aulia kiu-kiium ateia, nau uge sunuku-la me molen-La, koti aue uroro tani a-te-a-te-a ni-a lo-usi-usi. Marova uatea-atea nga valua oh, aueh Nina ekolomio marova ua-loa-na tani tara kateva taumatu eh Lomakunauru aue sama-teio, no-gina sios pasta me aue esau-sio me urau mene alo-usi-usi.

**Valua aue-ama-mi aisulia ararim a-teai, kiukiuki-um me mene kasina-kalum voto?**

Awe eha-loi ami aitoka kiuki? Awe ami tu awena? Awe ami sau-velu?


Sate-va ami gelei-ia ta-le kiukiu ami no-go?


Sa-ase ina-gari me ripoti awe vause atoa la roro-tani tara?

Isa ta-le aitiu-tiu tani tara me kiukiu teh Nina me ta-le isa kapaili inagari, awe Nina epiti emasina kiukiu ta-le kati-kirigi pepa, me e tau-lao ta-le vause or ta-le vause-atoa, me la tara ina-gari la ghe po-ala Te Nina awe kolomi vause atoa tani piti-ema-sina kiukiu, marova la alo-ana. Mausina va isa-kapa ili kiukiu me inagari la poa aweh meh teh kiukiu ekapaili e ta-ni ko-rona .

Marova vause atoa la aloana, aweh Nina etau-lao teva una buku eh piti ta-le vause atoa.

Sa-teva uroro tani nge-leia marova ua-loana tani kiuki?

Ami alona va uka-rasii tani tara rughai etikirigi oia me hu kila masi-naili mata ina gari etana, me awena uvira na-na marova ua-loana tani usi tani sama o tani kiukiu o karika. Kasina inagari utam kila, awe ukolomi ta Nina me awe aulia masinaili etam.

Sa-tau-mata-tu nga ateva uro-ro tani sama te-ia e Lomakunauru tani aulia na-nam?

Uroro tani sama te vause ateva eh nanamu tale vause atoa eh Lomakunauru tani aulia na-nam or voto ualoana tani kolomia. Loa teva oia vause ghe ta watu sio aiti-tiu etikiri urugai etam me ge kolmiola tani usi tani kiuki the Nina.

Agi,

Nina Pangiau

Inagari utani kila meh aulia na-nam varo se-sa

Universiti Research Ethics Committee ange wela va masinaia tani ngelei loa teva ioa voto (stadi). Marova uta tara va karika Nina eh helei eh masina loa teva oia voto o stadi, uroro tani aulia etana. Marova ualoa, uwau lia ta vause ateva eh nana mu ta vause atoa eh Lomakunauru. Meh varo vah ealoana aveh upiti piti sio tah: Dr Lalen Simeon o Dr Jennifer Litau, Pacific Adventist University, Private Mail Bag, Boroko, National Capital District, PNG, Email: Lalen_Simeon@pau.ac.pg / Jennifer_Litau@pau.ac.pg

Kateva etai rarua vause atoa, aveh pitii piti sio ta

The Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan NSW 2308, Australia, telephone +61 2 49216333, email Human-Ethics@newcastle.edu.au.
APPENDIX 22: VERIFICATION OF ENGLISH TRANSLATION TO TOK PISIN
Translation of Ethics Documents for Phase two research at New Guinea

1. ______________________________ confirm that the following English (Tok Pisin) translations are a true and accurate representation of the English version documents as approved by the University of New Human Research Ethics Committee.

List of translated documents:

1. Information about the study: Improving health of women of New Guinea (PNG) Version 1, June 1, 2009
2. Consent form for study project: Improving health of women of New Guinea (PNG) Version 1, June 1, 2009
3. Letter to invite women to take part in a study at Lomakun: Improving health of women of Papua New Guinea
4. Poster: Improving health of women of Papua New Guinea
5. Letter of appreciation for Mr. Lesly Soos

Signature

Date ______
Translation of Ethics Documents for Nina Pangiau for Phase Two research study in Papua New Guinea

I, [signature], confirm that the following Tok Ples (Mussau) translations are a true and accurate representation of the English version documents as approved by the University of Newcastle, Human Research Ethics Committee.

Types of documents are:
1. Information about the study: Improving health of women of Papua New Guinea (PNG) Version 1, June 1, 2009
2. Consent form for study project: Improving health of women of Papua New Guinea (PNG) version 1, June 1, 2009
3. Letter to invite women to take part in a study at Lomakxanuru: Improving health of women of Papua New Guinea.

Date ___
APPENDIX 22: PAU RESEARCH APPROVAL LETTER FOR PHASE TWO STUDY IN PNG

9th November 2009

Mrs Kira Pongiau

Re: Ethics approval for PhD research "Improving maternal health and reducing maternal mortality in Papua New Guinea (PNG): Phase two study using Participatory Action Research (PAR) in Lomakuanu, New Ireland Province, PNG"

The Pacific Adventist University Research and Ethics Committee (PAUREC) considered your letter dated 5th November 2009 and the accompanying documentation, including confirmation of approval by the University of Newcastle Human Research Ethics Committee effective 27 August 2009 for the above project.

I am pleased to confirm that PAUREC notes your letter and endorse you to proceed with the study, as a staff member of Pacific Adventist University.

We wish you all the best in this important study.

Yours Faithfully,

Dr Hifza Metalmaho

(Chair, PAUREC)
APPENDIX 20: VERIFICATION OF ENGLISH LANGUAGE TRANSLATION