

# Strategies to improve the implementation of workplacebased policies or practices targeting tobacco, alcohol, diet, physical activity and obesity (Protocol)

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# TABLE OF CONTENTS

DER	1
TRACT	1
KGROUND	2
ECTIVES	3
ΓHODS	
NOWLEDGEMENTS	7
ERENCES	7
ENDICES	10
	25
	26
JRCES OF SUPPORT	26

[Intervention Protocol]

# Strategies to improve the implementation of workplacebased policies or practices targeting tobacco, alcohol, diet, physical activity and obesity

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# ABSTRACT

This is a protocol for a Cochrane Review (Intervention). The objectives are as follows:

The primary aim of this review is to determine the effectiveness of implementation strategies for policies, practices or programmes that aim to improve health behaviours or reduce unhealthy behaviours commonly associated with risk factors for chronic disease in the workplace. Specifically, this review will target interventions that address diet, physical inactivity, obesity, risky alcohol use and tobacco use.

In addition, this review will determine:

• the effectiveness of implementation strategies on health behaviour outcomes (nutrition, physical activity, obesity, alcohol use and smoking);

- the cost-effectiveness of these strategies;
- the existence of adverse outcomes resulting from the implementation of these strategies.

# BACKGROUND

### **Description of the condition**

The most prevalent modifiable risk factors for chronic disease are poor diet, physical inactivity, tobacco use, risky alcohol consumption and obesity (Lim 2012). For example, the World Health Organization (WHO) estimates that 205 million males and 297 million females are obese (a body mass index (BMI) of 30 kg/m<sup>2</sup> or more) as of 2008 (WHO 2011). In 2005, the WHO also estimated that 36% of men and 8% of women smoke tobacco, although the prevalence is lower among selected Organisation for Economic Co-operation and Development (OECD) countries, at 21.3% and 12.7% for men and women respectively (OECD 2015; WHO 2008). Moreover, 20% of males and 27% of females are estimated to be physically inactive, with this proportion almost doubling in high-income countries (Kohl 2012). Cumulatively, the Institute for Health Metrics and Evaluation has reported that in 2013 these risk factors accounted for over 25% of the total global disease burden, over 26 million deaths and over 650 million disability-adjusted life years (IHME 2013).

These risk factors permeate the workforce to the extent that poor worker health has a significant impact on business economic potential. Estimates from Australia in 2009 suggest that the cost of poor health in workplaces equates to over AUD 60 billion for individuals, employers and the community alike (including medical costs, compensation costs, lost income and loss of productivity) (SWA 2015). For individuals, there is evidence to indicate that as many as one in four Australian employees will report having an alcohol use disorder (Teesson 2010). There is also evidence that between 12% and 30% of the Australian workforce smokes cigarettes and that this is higher among blue collar workers (Scollo 2015). Moreover, 57% to 66% of employed males and approximately 45% of employed females are overweight (a BMI of 25 kg/m<sup>2</sup> or more), and 60% of males and 50% of females report not meeting recommended physical activity guidelines (Mummery 2005). All in all, the major modifiable risk factors for chronic disease place a high burden on workforces.

### **Description of the intervention**

In 1979, the WHO proposed their 'Global Strategy for Health for All By 2000', wherein workplaces were identified as a settings to target and improve a range of health outcomes and health behaviours (WHO 1981). Indeed, in 2014 alone, adults from OECD countries spent an average of 36.8 hours per week in paid employment (OECD 2015a). This suggests that workplaces provide a unique opportunity to implement strategies to address multiple health behaviours and risk factors that are associated with chronic disease given 1) the potential for workplace-based interventions to reach a large number of adults for prolonged periods each working day, and 2) the potential capacity for worksites to structure individual- and organisational-level interventions (Pelletier 2011). Workplace-based strategies could therefore make a significant contribution to the improvement of a range of health behaviour issues among adults.

A number of systematic reviews and meta-analyses have been published in the last 10 years regarding the effectiveness of workplace interventions in influencing health behaviours (Anderson 2009; Barr-Anderson 2011; Benedict 2008; Cahill 2014; Fichtenberg 2002; Fishwick 2013; Freak-Poli 2013; Geaney 2013; Kahn-Marshall 2012; Maes 2012; Malik 2014; Mhurchu 2010; Rongen 2013; To 2013; Vuillemin 2011; Wong 2012). Reviews of workplace interventions targeting dietary behaviour (Anderson 2009; Geaney 2013; Maes 2012; Mhurchu 2010), and tobacco use (Cahill 2014; Fichtenberg 2002; Fishwick 2013; Freak-Poli 2013), have typically reported that such interventions yield modest improvements in these behaviours. Reviews of interventions targeting physical inactivity (Barr-Anderson 2011; Malik 2014; To 2013; Vuillemin 2011; Wong 2012), obesity (Benedict 2008; Vuillemin 2011), or risky alcohol use (Ames 2011; Kolar 2015; Lee 2014), however, have reported mixed results, although within such reviews effective programmes have been identified.

Nonetheless, implementation of effective workplace interventions is required if they are to benefit public health (Bero 1998). 'Implementation' is defined as the use of strategies to adopt and integrate evidence-based health interventions and to change practice patterns within specific settings (Glasgow 2012). Specifically, implementation research is the study of strategies designed to integrate health policies, practices or programmes within specific settings (for example, workplaces) (Schillinger 2010). The National Institutes of Health recognises implementation research as a component of the third stage ('T3') of the research translation process and as being essential if health innovations are to generate health improvements in the community (Glasgow 2012).

There are a range of potential strategies that can improve the likelihood of implementation of interventions to address healthy eating, physical activity, obesity, tobacco or harmful alcohol use. In health services research, for example, the Cochrane Effective Practice and Organisation of Care (EPOC) Group taxonomy has been developed to characterise educational, behavioural, financial, regulatory and organisational strategies that can improve professional practice and health care (EPOC 2015). Specific implementation strategies included in the taxonomy include continuous quality improvement, educational materials, performance monitoring, local consensus processes and educational outreach visits (EPOC 2015). Such strategies have also been utilised in settings such as schools (Nathan 2012), childcare services (Finch 2012; Jones 2015), and sporting clubs (Kingsland 2015) to improve implementation of evidence-based health interventions and they could similarly be applied to workplaces to improve implementation of chronic disease prevention policies and practices.

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### How the intervention might work

Strategies that improve the implementation of workplace-based health-related policies may be effective if they address the determinants impeding implementation. However, the determinants of policy and practice implementation are complex. That is, a number of factors have been reported to impede implementation of health promotion initiatives in the workplace settings (Cherniack 2010). For example, a workshop convened by the National Institutes of Health and the Centers for Disease Control and Prevention to advance knowledge and implementation of effective strategies to reduce chronic disease risks in the workplace identified many barriers to worksite programme implementation (Sorensen 2011). These barriers included lack of employee interest, limited staff resources, cost, misalignment of incentives and insufficient support from management, while others have identified workplace financial, structural and cultural issues (Cherniack 2010). Moreover, implementation theoretical frameworks, including Damschroder's Consolidated Framework for Implementation Research and the behaviour change wheel, also suggest that barriers to implementation are complex, operate at multiple levels and include individual, organisational, cultural, social, political and other macrolevels factors (Damschroder 2009; Michie 2011). Similarly, such frameworks suggest that a sound understanding of implementation context and barriers is required in order to correctly apply implementation frameworks and select strategies that best address the determinants of implementation (Michie 2008; Michie 2011).

# Why it is important to do this review

The lack of evidence regarding effective strategies to improve the implementation of health behaviour policies in workplaces represents a significant gap in the health promotion and implementation science literature. Future workplace interventions will benefit significantly from a comprehensive review of strategies to improve the implementation of interventions targeting diet, physical inactivity, risky alcohol use, tobacco use and obesity. This review will also provide a firm evidence base for health promotion practitioners, as well as other end-users including employers or insurers, regarding the design and implementation of interventions to promote healthy behaviours within workplaces.

# OBJECTIVES

The primary aim of this review is to determine the effectiveness of implementation strategies for policies, practices or programmes that aim to improve health behaviours or reduce unhealthy behaviours commonly associated with risk factors for chronic disease in the workplace. Specifically, this review will target interventions that address diet, physical inactivity, obesity, risky alcohol use and tobacco use. In addition, this review will determine:

• the effectiveness of implementation strategies on health behaviour outcomes (nutrition, physical activity, obesity, alcohol use and smoking);

• the cost-effectiveness of these strategies;

• the existence of adverse outcomes resulting from the implementation of these strategies.

# METHODS

# Criteria for considering studies for this review

### **Types of studies**

Given the often complex nature of evaluation studies of implementation trials, we will include a broad range of study types in this review. Although randomised controlled trials (RCTs) are considered the most reliable and robust design for establishing the effectiveness of an intervention, there are often practical issues regarding their implementation that preclude them from being a feasible design type in the context of workplace interventions. As such, we will include any trial with a parallel control group including:

- RCTs and cluster-RCTs;
- quasi-RCTS and cluster quasi-RCTs;

• controlled before and after studies (CBAs) and cluster-

CBAs.

We will only include studies that 1) compare a strategy to improve implementation of a healthy eating, physical activity, alcohol or smoking cessation policy with no intervention or 'usual practice', or 2) compare two or more strategies to improve implementation of healthy eating, physical activity, alcohol or smoking cessation policies.

There will be no restriction on the length of the study follow-up period, language of publication or country of origin. However, we will exclude studies that do not include implementation of a workplace policy or practices as a specific aim. We will not include studies that do not report baseline measures of the primary outcome. We will exclude studies with only one intervention or control site in line with the Cochrane EPOC Group recommendations (EPOC 2015).

### Types of participants

We will include studies undertaken in any 'workplaces' or 'worksites', in any location in any country, which are staffed by paid employees. We will include workplaces of any industry sector including health, education, finance, retail manufacturing, information technology, agriculture, construction or mining. Participants

Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and 3 obesity (Protocol)

could include paid employees at any level of the workplace organisation, or other officials or organisations who could influence the implementation of workplace health-promoting programmes, practices or policies.

### **Types of interventions**

We will include any intervention with the primary intent of improving implementation of a healthy eating, physical activity, alcohol cessation or smoking cessation policy, practice or programme in a workplace, to improve the health of employees (e.g. healthy cafeteria options or smoke-free policies). Interventions could be based on quality improvement initiatives, education and training, performance feedback, prompts and reminders, implementation resources, financial incentives, penalties, communication and social marketing strategies, professional networking, the use of opinion leaders or implementation consensus processes, as well as other strategies included in the EPOC taxonomy (EPOC 2015). Interventions may be singular or multicomponent. We will also include interventions to support the implementation of strategies in the workplace to enhance the use of external services to encourage health behaviour change of workers, such as incentive schemes to encourage gym membership. We will exclude interventions focused outside of the workplace.

#### Types of outcome measures

#### **Primary outcomes**

The primary outcomes will be any measure of the implementation of a workplace policy, procedure or practice to improve the diet, physical inactivity, obesity, risky alcohol use and tobacco use of its employees. For example, the percentage of workplaces implementing a food service with menu labelling, or the mean number of health-promoting practices implemented by workplaces to promote physical activity. Data on these outcomes might be obtained from self-report measures (e.g. completed by workplace staff or health promotion officers), direct observation by researchers, audits of workplace records or audits of data collected by external organisations (e.g. parent company, government). Such outcome data could be extracted from the primary outcomes of implementation initiatives or process evaluation data from trials.

#### Secondary outcomes

1. Any measure of diet, physical activity (including sedentary behaviours), tobacco or alcohol use, or weight status. Such measures could be derived from any data source including direct observation, questionnaire, or anthropometric or biochemical assessments. We will exclude studies focusing on malnutrition/ malnourishment. 2. Estimates of absolute costs or any assessment of the costeffectiveness of strategies to improve the implementation of policies, practices or programmes in workplaces.

3. Any reported adverse consequences of a strategy to improve the implementation of policies, practices or programmes in workplaces. This could include impacts on worker health (for example, an increase in injury following the implementation of physical activity-promoting practices), workplace operation or staff attitudes (for example, impacts on staff motivation or cohesion).

#### Search methods for identification of studies

We will perform searches for peer-reviewed and grey literature in electronic databases, handsearch relevant journals and screen the reference lists of included trials. We will also search on the internet.

#### **Electronic searches**

We will search the following electronic databases:

- Cochrane Central Register of Controlled trials
- (CENTRAL, current issue);
  - MEDLINE (up to 2016);
  - MEDLINE In-Process (up to 2016);
  - The Campbell Library;
  - PsycINFO (up to 2016);

• Education Resource Information Center (ERIC) (up to 2016);

- CINAHL (up to 2016);
- SCOPUS (up to 2016).

The MEDLINE search strategy is described in Appendix 1. The search strategy will use search filters published in other systematic reviews for research design (Waters 2011), setting (Cahill 2014; Freak-Poli 2013), physical activity and healthy eating (Dobbins 2013; Guerra 2014; Jaime 2009), obesity (Waters 2011), tobacco use prevention (Thomas 2013), and alcohol misuse (Foxcroft 2011). We will also use a search filter for the intervention (implementation strategies) that has been employed in previous Cochrane Reviews (Williams 2015; Wolfenden 2015), and was originally developed based on common terms in implementation and dissemination research (Rabin 2008; Rabin 2010).

### Searching other resources

We will search the reference lists of all included trials for citations of other potentially eligible studies. We will conduct handsearches of all publications for the past five years in the journal *Implementation Science* and the *Journal of Translational Behavioural Medicine*. Furthermore, we will conduct searches of the WHO International Clinical Trials Registry Platform (www.who.int/ictrp/) and ClinicalTrials.gov (www.clinicaltrials.gov) to identify studies in progress or completed that may be eligible. We will include

Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and obesity (Protocol)

studies that have not yet been published in the 'Characteristics of ongoing studies' table of the review. We will also make contact with the authors of included trials, experts in the field of implementation science and key organisations to identify any relevant ongoing or unpublished trials or grey literature publications (e.g. HMIC, OpenGrey, ProQuest Dissertations and Theses).

# Data collection and analysis

### Selection of studies

Two review authors will independently screen abstracts and titles for potentially eligible studies. Review authors will not be blind to author or journal information. We will perform screening using a standardised screening tool developed based on the *Cochrane Handbook for Systematic Reviews of Interventions* (Higgins 2011a). We will adapt the tool, which has been previously used by the author team in other systematic reviews (Williams 2015; Wolfenden 2015), for the content and setting of this review and we will pilot it before use. We will obtain the full texts of potentially eligible trials for further examination. For all ineligible manuscripts, we will document the primary reason for exclusion in the 'Characteristics of excluded studies' table. Discrepancies between review authors regarding study eligibility will be resolved by consensus or, when required, by a third review author.

#### Data extraction and management

Two review authors (from pool of five authors: LW, TR, SY, CM, JW) will independently extract information from the included trials. Those extracting data will not be blind to author or journal information. We will extract data using a form developed based on the recommendations in the Cochrane Public Health Group Guide for Developing a Cochrane Protocol (CPHG 2011). We will adapt the form, which has previously been used by the author team in other systematic reviews (Williams 2015; Wolfenden 2015), for use in this review and we will pilot it before use. We will resolve discrepancies between review authors regarding data extraction by consensus and, where required, via a third review author.

Specifically, we will extract the following information:

• Study eligibility as well as the study design, date of publication, type of workplace, country, participant/service demographic/socioeconomic characteristics and number of experimental conditions, as well as information to allow assessment of study risk of bias.

• Characteristics of the implementation strategy, including the duration, number of contacts and approaches to implementation, the theoretical underpinning of the strategy (if noted in the study), information to allow classification against the EPOC taxonomy to enable an assessment of the overall quality of evidence using the Grades of Recommendation, Assessment, Development and Evaluation (GRADE) approach, as well as data describing the consistency of the execution of the intervention with a planned delivery protocol.

• Trial primary and secondary outcomes, including the data collection method, validity of measures used, name of tool used, scale of measure (range), number of participants analysed in each comparison group, effect size (its value, 95% confidence interval (CI) and P value) and measures of outcome variability.

• Source(s) of research funding and potential conflicts of interest.

### Assessment of risk of bias in included studies

Two review authors will assess risk of bias independently using the Cochrane EPOC Group 'Risk of bias' criteria (EPOC 2015a). We will assign a risk of bias classification ('high', 'low' or 'unclear') to each of the following assessment criteria: sequence generation, allocation concealment, protection against contamination, blinding of outcome assessment, baseline outcome, baseline characteristics, selective outcome reporting, missing outcome data and other risks of bias (EPOC 2015a). Additionally, we will include a criterion for 'potential confounding' for the assessment of the risk of bias in non-randomised trial designs (Higgins 2011). We will also include additional criteria for cluster-randomised controlled trials including 'recruitment to cluster', 'baseline imbalance', 'loss of clusters', 'incorrect analysis' and 'compatibility with individually randomised controlled trials' (Higgins 2011). We will document the risk of bias of the included studies in 'Risk of bias' tables. We will also assign an on overall risk of bias to each study, giving consideration to all such study characteristics. Where required, a third review author will adjudicate discrepancies regarding the risk of bias that cannot be resolved via consensus.

# Measures of treatment effect

We anticipate differences in the measures of primary and secondary outcomes reported in the included studies, which may preclude the use of summary statistics to describe treatment effects and necessitate a narrative synthesis. Nonetheless, we will make attempts to conduct meta-analysis using data from the included trials for all outcomes where it is appropriate to do so. In such cases, for binary outcomes, we will calculate the standard estimation of the risk ratio (RR) and a 95% confidence interval (CI). For continuous data, we will calculate the mean difference (MD), where a consistent measure of outcome is used in the included trials. Where different measures are used to examine the primary outcome, we will calculate the standardised mean difference (SMD).

#### Unit of analysis issues

Clustered studies

Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and 5 obesity (Protocol)

We will examine all clustered trials for unit of analysis errors. Where they occur, we will document unit of analysis errors in the 'Risk of bias' tables. For cluster-randomised trials that have performed analyses at a different level to that of allocation, without appropriate statistical adjustment for clustering, we will calculate the trial's effective sample size for use in meta-analysis. We will also utilise the intracluster correlation co-efficient derived from the trial (if available), or from another source (for example, using the intracluster correlations derived from other, similar trials). We will calculate the design effect using the formula provided in the *Cochrane Handbook for Systematic Reviews of Interventions* (Higgins 2011a).

#### Studies with more than two treatment groups

We will follow the procedures described in the *Cochrane Handbook* for Systematic Reviews of Interventions for trials with more than two intervention or comparison arms to avoid double-counting study participants in meta-analysis (Higgins 2011a). Specifically, to avoid unit of analysis errors for a study that could contribute multiple, correlated comparisons, we will first seek to combine all relevant experimental groups into a single study group to create a single pair-wise comparison, when possible. Otherwise we will split the shared group into two or more groups with smaller sample sizes before pooling data.

### Dealing with missing data

We will contact the authors of included trials to provide additional information if any outcome data are unclear or missing. We will not impute outcome data if unavailable. We will record any instances of potential selective or incomplete reporting of outcome data in the 'Risk of bias' tables. We will examine the potential impact of missing data on the pooled estimates of intervention effects as part of our sensitivity analyses.

#### Assessment of heterogeneity

We will assess heterogeneity via a number of methods for each outcome pooled in quantitative synthesis. First, we will visually inspect forest plots for the extent to which CIs overlap. Second, we will conduct Chi<sup>2</sup> tests, with a P value of < 0.05 as evidence of statistical heterogeneity. Finally, we will calculate the I<sup>2</sup> statistic (Higgins 2011). We will consider an I<sup>2</sup> statistic of > 50% as representing substantial heterogeneity and we will seek consensus between review authors regarding the appropriateness of meta-analysis. We will not perform meta-analysis if the I<sup>2</sup> statistic is > 90%.

#### Assessment of reporting biases

The comprehensive search strategy for this review will reduce the risk of reporting bias. Nonetheless, we will generate funnel plots

for each outcome and compare published reports with trial protocols and trial registers, where such reports are available, to identify instances of potential reporting bias. We will document any instances of potential reporting bias in the 'Risk of bias' tables.

### Data synthesis

We will consider any implementation strategies in our review, therefore we anticipate that the pooled effect size estimation will be affected by the potential heterogeneity for each outcome. Therefore, we will use a random-effects model to estimate the pooled effect size and its 95% CI where two or more trials with suitable data are available for the outcomes. We will not pool data from randomised and non-randomised trial designs. Similarly, we will not pool data from non-randomised studies of different study designs.

Given the variety of possible intervention strategies and outcome measures, we anticipate that a meta-analysis of included trials will not be possible for the primary review outcome. In this instance, we will group implementation strategies using the Cochrane EPOC Group taxonomy (EPOC 2015), and we will describe the median effect size (with range) of the primary implementation outcomes for trials reporting dichotomous or continuous outcomes as has been done in previous Cochrane Reviews (Ivers 2012).

We will include a 'Summary of findings' table to present the key findings of the review. We will generate the table based on the recommendations included in the *Cochrane Handbook for Systematic Reviews of Interventions*. The 'Summary of findings' table will include: 1) a list of all primary outcomes of the review; 2) a measure of absolute or relative magnitude of intervention effect, or both (if meta-analysis is performed); 3) the number of participants and studies addressing each outcome; 4) a grade for the overall quality of the body of evidence for each outcome; and 5) any pertinent comments to assist interpretation (Higgins 2011a). In particular, the table will provide key information concerning the quality of evidence, the magnitude of effect of the interventions examined and the sum of available data on the main outcomes.

Two review authors will rate the overall quality of the evidence for each outcome using the GRADE system (Guyatt 2011), with any disagreements resolved via consensus or, if required, by a third review author. The GRADE system defines the quality of the body of evidence for each review outcome regarding the extent to which one can be confident in the review findings. The GRADE system requires an assessment of methodological quality, directness of evidence, heterogeneity, precision of effect estimates and risk of publication bias. We will assess all GRADE domains to make judgements on the quality of the evidence. We will use the GRADE quality ratings (from 'very low' to 'high') to describe the quality of the body of evidence for each review outcome and we will include these in the 'Summary of findings' table.

### Subgroup analysis and investigation of heterogeneity

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We will describe the characteristics of included trials according to population, intervention, comparison, outcome and study design to establish clinical and methodological heterogeneity across included studies. We will perform subgroup analyses to explore heterogeneity where the I<sup>2</sup> value is > 50%. Specifically, to explore heterogeneity we will form subgroups based on the intervention population, intervention, targeted health behaviour and study design characteristics. Additionally, we will perform subgroup analyses based on the scale of implementation. Specifically, we will perform subgroup analyses for interventions targeting implementation in 50 or more organisational units (workplace sites or departments).

Sensitivity analysis

We will perform sensitivity analysis for the primary trial outcomes

by removing studies with a high risk of bias and by removing outliers contributing to statistical heterogeneity. If visual inspection of the forest plots identifies outliers (i.e. where the CI of a trial does not overlap with other included studies), we will contact the authors of the trial to confirm the trial data and we will perform the sensitivity analyses with the trial removed to assess any impact on the pooled estimates of effect.

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Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and obesity (Protocol)

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7

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Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and obesity (Protocol)

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8

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\* Indicates the major publication for the study

# APPENDICES

# Appendix I. Search strategy

Database(s): MEDLINE 1946 to present with daily update Search strategy: # Searches 1 Workplace/ 2 Work/ 3 Occupational Health/ 4 Occupational Medicine/ 51 or/1-4 6 Health Behavior/ 7 Health Education/ 8 Health Promotion/ 9 Healthy People Programs/ 10 exp Primary Prevention/ 11 Randomized Controlled Trial/ 12 Controlled Clinical Trial/ 13 Clinical Trials as Topic/ 14 Random Allocation/ 15 Evaluation Studies/ 16 Comparative Study/ 17 random\*.tw. 18 trial.tw.

Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and lobesity (Protocol)

19 groups.tw. 20 placebo.tw. 21 experiment\*.tw. 22 (time adj series).tw. 23 (pretest or pre test or posttest or post test).tw. 24 impact.tw. 25 change\*.tw. 26 evaluat\*.tw. 27 effect\*.tw. 28 "before and after".tw. 29 intervention\*.tw. 30 program\*.tw. 31 compare\*.tw. 32 (control or controls\* or controla\* or controle\* or controli or controll\*).tw. 33 or/6-32 34 implement\*.mp. 35 dissemin\*.mp. 36 adopt\*.mp. 37 practice\*.mp. 38 organi?ational change\*.mp. 39 diffus\*.mp. 40 (system\* adj2 change\*).mp. 41 quality improvement\*.mp. 42 transform\*.mp. 43 translat\*.mp. 44 transfer\*.mp. 45 uptake\*.mp. 46 sustainab\*.mp. 47 institutionali\*.mp. 48 routin\*.mp. 49 maintenance.mp. 50 capacity.mp. 51 incorporat\*.mp. 52 adher\*.mp. 53 integrat\*.mp. 54 scal\*.mp. 55 ((polic\* or practice\* or program\* or innovation\*) adj5 (performance or feedback or prompt\* or reminder\* or incentive\* or penalt\* or communicat\* or social market\* or professional development or network\* or leadership or opinion leader\* or consensus process\* or change manage\* or train\* or audit\*)).mp. 56 or/34-55 57 exp Obesity/ 58 Weight Gain/ 59 exp Weight Loss/ 60 obes\*.af. 61 (weight gain or weight loss).af. 62 (overweight or over weight or overeat\* or over eat\*).af. 63 weight change\*.af. 64 ((bmi or body mass index) adj2 (gain or loss or change)).af. 65 exp Primary Prevention/ 66 (primary prevention or secondary prevention).af. 67 (preventive measure\* or preventative measure\*).af. 68 (preventive care or preventative care).af. 69 (obesity adj2 (prevent\* or treat\*)).af.

Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and ll obesity (Protocol)

70 or/57-69 71 exp Exercise/ 72 physical inactivity.mp. 73 physical activity.mp. 74 exp Motor Activity/ 75 (physical education and training).mp. 76 exp "Physical Education and Training"/ 77 Physical Fitness/ 78 sedentary.tw. 79 exp Life Style/ 80 exp Leisure Activities/ 81 exp Sports/ 82 Dancing/ 83 dancing.mp. 84 (exercise\* adj aerobic\*).tw. 85 sport\*.tw. 86 ((life style or life style) adj5 activ\*).tw. 87 or/71-86 88 exp Diet/ 89 nutrition\*.mp. 90 healthy eating.mp. 91 fruit\*.tw. 92 vegetable\*.tw. 93 canteen.mp. 94 menu.tw. 95 (calorie or calories).tw. 96 energy intake.tw. 97 energy density.tw. 98 eating.tw. 99 (feeding behavior or feeding behaviour).tw. 100 dietary intake.tw. 101 food.tw. 102 soft drink\*.tw. 103 soda.tw. 104 sweetened drink\*.tw. 105 fat.tw. 106 confectionary.tw. 107 menu planning.tw. 108 feeding program\*.tw. 109 nutrition program\*.tw. 110 nutritional program\*.tw. 111 cafeteria\*.tw. 112 nutritional status.tw. 113 or/88-112 114 exp Smoking/ 115 exp "tobacco Use Cessation"/ 116 smok\*.mp. 117 nicotine.mp. 118 tobacco use\*.tw. 119 tobacco.mp. 120 exp tobacco/ 121 or/114-120 122 cessation.tw.

Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and l2 obesity (Protocol)

123 prevent\*.tw. 124 stop\*.tw. 125 quit\*.tw. 126 abstin\*.tw. 127 abstain\*.tw. 128 reduc\*.tw. 129 "tobacco use disorder".mp. 130 ex-smoker\*.mp. 131 anti-smok\*.mp. 132 or/122-131 133 121 and 132 134 exp Alcohols/ 135 exp Alcohol Drinking/ 136 exp Alcohol Abuse/ 137 exp Alcohol, Ethyl/ae 138 alcohol\*.mp. 139 Drink\*.mp. 140 liquor\*.mp. 141 beer\*.mp. 142 wine\*.mp. 143 spirit\*.mp. 144 drunk\*.mp. 145 intoxicat\*.mp. 146 binge.mp. 147 or/134-146 148 70 or 87 or 113 or or 133 or 147 149 5 and 33 and 56 and 148 Database(s): MEDLINE In-Process & Other Non-Indexed Citations Search strategy: # Searches 1 workplace\*.mp. 2 work.mp. 3 Occupational Health.mp. 4 Occupational Medicine.mp. 5 1 or 2 or 3 or 4 6 Health Behavio?r\*.mp. 7 Health Education.mp. 8 health promotion.mp. 9 Healthy People Program\*.mp. 10 Primary Prevention.mp. 11 Randomized Controlled Trial/ 12 Controlled Clinical Trial/ 13 Evaluation Studies/ 14 Comparative Study/ 15 random\*.tw. 16 trial.tw. 17 groups.tw. 18 placebo.tw. 19 experiment\*.tw. 20 (time adj series).tw. 21 (pretest or pre test or posttest or post test).tw. 22 impact.tw. 23 change\*.tw.

Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and l3 obesity (Protocol)

24 evaluat\*.tw. 25 effect\*.tw. 26 "before and after".tw. 27 intervention\*.tw. 28 program\*.tw. 29 compare\*.tw. 30 (control or controls\* or controla\* or controle\* or controli or controll\*).tw. 31 or/6-30 32 implement\*.mp. 33 dissemin\*.mp. 34 adopt\*.mp. 35 practice\*.mp. 36 organi?ational change\*.mp. 37 diffus\*.mp. 38 (system\* adj2 change\*).mp. 39 quality improvement\*.mp. 40 transform\*.mp. 41 translat\*.mp. 42 transfer\*.mp. 43 uptake\*.mp. 44 sustainab\*.mp. 45 institutionali\*.mp. 46 routin\*.mp. 47 maintenance.mp. 48 capacity.mp. 49 incorporat\*.mp. 50 adher\*.mp. 51 integrat\*.mp. 52 scal\*.mp. 53 ((polic\* or practice\* or program\* or innovation\*) adj5 (performance or feedback or prompt\* or reminder\* or incentive\* or penalt\* or communicat\* or social market\* or professional development or network\* or leadership or opinion leader\* or consensus process\* or change manage\* or train\* or audit\*)).mp. 54 or/32-53 55 exp Obesity/ 56 Weight Gain/ 57 exp Weight Loss/ 58 obes\*.af. 59 (weight gain or weight loss).af. 60 (overweight or over weight or overeat\* or over eat\*).af. 61 weight change\*.af. 62 ((bmi or body mass index) adj2 (gain or loss or change)).af. 63 exp Primary Prevention/ 64 (primary prevention or secondary prevention).af. 65 (preventive measure\* or preventative measure\*).af. 66 (preventive care or preventative care).af. 67 (obesity adj2 (prevent\* or treat\*)).af. 68 or/55-67 69 exp Exercise/ 70 physical inactivity.mp. 71 physical activity.mp. 72 exp Motor Activity/ 73 (physical education and training).mp. 74 exp "Physical Education and Training"/

Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and l4 obesity (Protocol)

75 Physical Fitness/ 76 sedentary.tw. 77 exp Life Style/ 78 exp Leisure Activities/ 79 exp Sports/ 80 Dancing/ 81 dancing.mp. 82 (exercise\* adj aerobic\*).tw. 83 sport\*.tw. 84 ((life style or life style) adj5 activ\*).tw. 85 or/69-84 86 exp Diet/ 87 nutrition\*.mp. 88 healthy eating.mp. 89 fruit\*.tw. 90 vegetable\*.tw. 91 canteen.mp. 92 menu.tw. 93 (calorie or calories).tw. 94 energy intake.tw. 95 energy density.tw. 96 eating.tw. 97 (feeding behavior or feeding behaviour).tw. 98 dietary intake.tw. 99 food.tw. 100 soft drink\*.tw. 101 soda.tw. 102 sweetened drink\*.tw. 103 fat.tw. 104 confectionary.tw. 105 menu planning.tw. 106 feeding program\*.tw. 107 nutrition program\*.tw. 108 nutritional program\*.tw. 109 cafeteria\*.tw. 110 nutritional status.tw. 111 or/86-110 112 exp Smoking/ 113 exp "tobacco Use Cessation"/ 114 smok\*.mp. 115 nicotine.mp. 116 tobacco use\*.tw. 117 tobacco.mp. 118 exp tobacco/ 119 or/112-118 120 cessation.tw. 121 prevent\*.tw. 122 stop\*.tw. 123 quit\*.tw. 124 abstin\*.tw. 125 abstain\*.tw. 126 reduc\*.tw. 127 "tobacco use disorder".mp.

Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and IS obesity (Protocol)

128 ex-smoker\*.mp. 129 anti-smok\*.mp. 130 or/120-129 131 119 and 130 132 exp Alcohols/ 133 exp Alcohol Drinking/ 134 exp Alcohol Abuse/ 135 exp Alcohol, Ethyl/ae 136 alcohol\*.mp. 137 Drink\*.mp. 138 liquor\*.mp. 139 beer\*.mp. 140 wine\*.mp. 141 spirit\*.mp. 142 drunk\*.mp. 143 intoxicat\*.mp. 144 binge.mp. 145 or/132-144 146 68 or 85 or 111 or 131 or 145 147 5 and 31 and 54 and 146 Database(s): PsycINFO 1806 to May 2016 Search strategy: # Searches 1 WORKPLACE INTERVENTION/ or Workplace.mp. 2 work.mp. 3 exp Occupational Health/ 4 Occupational Medicine.mp. 5 1 or 2 or 3 or 4 6 Health Behavior/ 7 Health Education/ 8 Health Promotion/ 9 Healthy People Program\*.mp. 10 Primary prevention.mp. 11 exp Clinical Trials/ 12 Evaluation Stud\*.mp. 13 Comparative Stud\*.mp. 14 random\*.tw. 15 trial.tw. 16 groups.tw. 17 placebo.tw. 18 experiment\*.tw. 19 (time adj series).tw. 20 (pretest or pre test or posttest or post test).tw. 21 impact.tw. 22 change\*.tw. 23 evaluat\*.tw. 24 effect\*.tw. 25 "before and after".tw. 26 intervention\*.tw. 27 program\*.tw. 28 compare\*.tw. 29 (control or controls\* or controla\* or controle\* or controli or controll\*).tw. 30 or/6-29

Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and l6 obesity (Protocol)

31 implement\*.mp. 32 dissemin\*.mp. 33 adopt\*.mp. 34 practice\*.mp. 35 organi?ational change\*.mp. 36 diffus\*.mp. 37 (system\* adj2 change\*).mp. 38 quality improvement\*.mp. 39 transform\*.mp. 40 translat\*.mp. 41 transfer\*.mp. 42 uptake\*.mp. 43 sustainab\*.mp. 44 institutionali\*.mp. 45 routin\*.mp. 46 maintenance.mp. 47 capacity.mp. 48 incorporat\*.mp. 49 adher\*.mp. 50 integrat\*.mp. 51 scal\*.mp. 52 ((polic\* or practice\* or program\* or innovation\*) adj5 (performance or feedback or prompt\* or reminder\* or incentive\* or penalt\* or communicat\* or social market\* or professional development or network\* or leadership or opinion leader\* or consensus process\* or change manage\* or train\* or audit\*)).mp. 53 or/31-52 54 Obesity/ 55 Weight Gain/ 56 Weight Loss/ 57 obes\*.af. 58 (weight gain or weight loss).af. 59 (overweight or over weight or overeat\* or over eat\*).af. 60 weight change\*.af. 61 ((bmi or body mass index) adj2 (gain or loss or change)).af. 62 (primary prevention or secondary prevention).af. 63 (preventive measure\* or preventative measure\*).af. 64 (preventive care or preventative care).af. 65 (obesity adj2 (prevent\* or treat\*)).af. 66 or/54-65 67 exp EXERCISE/ 68 physical inactivity.mp. 69 exp Physical Activity/ 70 Motor Activity.mp. 71 (physical education and training).mp. 72 exp Physical Education/ 73 Physical Fitness/ 74 exp SEDENTARY BEHAVIOR/ or sedentary.mp. 75 exp Lifestyle/ 76 exp Leisure Time/ or Leisure Activities.mp. 77 exp SPORTS/ 78 exp Dance/ or Dancing.mp. 79 (exercise\* adj aerobic\*).tw. 80 sport\*.tw. 81 ((life style or life style) adj5 activ\*).tw.

Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and I7 obesity (Protocol)

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82 or/67-81 83 Diet.mp. 84 nutrition\*.mp. 85 healthy eating.mp. 86 fruit\*.tw. 87 vegetable\*.tw. 88 canteen.mp. 89 menu.tw. 90 (calorie or calories).tw. 91 energy intake.tw. 92 energy density.tw. 93 eating.tw. 94 (feeding behavior or feeding behaviour).tw. 95 dietary intake.tw. 96 food.tw. 97 soft drink\*.tw. 98 soda.tw. 99 sweetened drink\*.tw. 100 fat.tw. 101 confectionary.tw. 102 menu planning.tw. 103 feeding program\*.tw. 104 nutrition\* program\*.tw. 105 cafeteria\*.tw. 106 nutritional status.tw. 107 or/83-106 108 exp TOBACCO SMOKING/ 109 Smoking Cessation/ 110 smok\*.mp. 111 nicotine.mp. 112 tobacco.mp. 113 or/108-112 114 cessation.tw. 115 prevent\*.tw. 116 stop\*.tw. 117 quit\*.tw. 118 abstin\*.tw. 119 abstain\*.tw. 120 reduc\*.tw. 121 "tobacco use disorder".mp. 122 ex-smoker\*.mp. 123 anti-smok\*.mp. 124 or/114-123 125 113 and 124 126 exp ALCOHOLS/ 127 exp Binge Drinking/ or exp Alcoholism/ 128 exp Alcohol Abuse/ 129 alcohol\*.mp. 130 Drink\*.mp. 131 liquor\*.mp. 132 beer\*.mp. 133 wine\*.mp. 134 spirit\*.mp.

Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and l8 obesity (Protocol)

135 drunk\*.mp. 136 intoxicat\*.mp. 137 binge.mp. 138 or/126-137 139 66 or 82 or 107 or 125 or 138 140 5 and 30 and 53 and 139 141 1 or 3 or 4 142 30 and 53 and 139 and 141 **CINAHL** # Query S1 (MH "Work Environment") OR "Workplace" S2 (MH "Work") S3 (MH "Occupational Health") S4 (MH "Occupational Medicine") S5 S1 OR S2 OR S3 OR S4 S6 (MH "Health Behavior") S7 (MH "Health Education") S8 (MH "Health Promotion") S9 Healthy People Program\* S10 (MH "Preventive Health Care") OR "Primary Prevention" S11 (MH "Randomized Controlled Trials") S12 (MH "Clinical Trials+") S13 (MH "Random Assignment") S14 (MH "Evaluation Research") S15 (MH "Comparative Studies") S16 TI random\* OR AB random\* S17 TI trial OR AB trial S18 TI groups OR AB groups S19 TI placebo OR AB placebo S20 TI experiment\* OR AB experiment\* S21 TI (time n1 series) OR AB (time n1 series) S22 TI ( (pretest or pre test or posttest or post test) ) OR AB ( (pretest or pre test or posttest or post test) ) S23 TI impact OR AB impact S24 TI change\* OR AB change\* S25 TI evaluat\* OR AB evaluat\* S26 TI effect\* OR AB effect\* S27 TI ( "before and after" ) OR AB ( "before and after" ) S28 TI intervention\* OR AB intervention\* S29 TI program\* OR AB program\* S30 TI compare\* OR AB compare\* S31 TI ( (control or controls\* or controle\* or controle\* or controli) ) OR AB ( (control or controls\* or controla\* or controle\* or controli or controll\*) ) \$32 \$6 OR \$7 OR \$8 OR \$9 OR \$10 OR \$11 OR \$12 OR \$13 OR \$14 OR \$15 OR \$16 OR \$17 OR \$18 OR \$19 OR \$20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31 S33 implement\* S34 dissemin\* S35 adopt\* S36 practice\* \$37 "organi?ational change\*" S38 diffus\* S39 (system\* n2 change\*) S40 "quality improvement\*" S41 transform\*

Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and l9 obesity (Protocol)

S42 translat\* S43 transfer\* S44 uptake\* S45 sustainab\* S46 institutionali\* S47 routin\* S48 maintenance S49 capacity S50 incorporat\* S51 adher\* S52 integrat\* S53 scal\* S54 ((polic\* or practice\* or program\* or innovation\*) n5 (performance or feedback or prompt\* or reminder\* or incentive\* or penalt\* or communicat\* or social market\* or professional development or network\* or leadership or opinion leader\* or consensus process\* or change manage\* or train\* or audit\*)) S55 S33 OR S34 OR S35 OR S36 OR S37 OR S38 OR S39 OR S40 OR S41 OR S42 OR S43 OR S44 OR S45 OR S46 OR S47 OR S48 OR S49 OR S50 OR S51 OR S52 OR S53 OR S54 S56 (MH "Obesity+") S57 (MH "Weight Gain") S58 (MH "Weight Loss+") S59 obes\* S60 (weight gain or weight loss) S61 (overweight or over weight or overeat\* or over eat\*) S62 "weight change\*" S63 ((bmi or body mass index) n2 (gain or loss or change)) S64 (primary prevention or secondary prevention) S65 (preventive measure\* or preventative measure\*) S66 (preventive care or preventative care) S67 S56 OR S57 OR S58 OR S59 OR S60 OR S61 OR S62 OR S63 OR S64 OR S65 OR S66 S68 (MH "Exercise+") S69 "physical inactivity" S70 (MH "Physical Activity") S71 (MH "Motor Activity+") S72 (MH "Physical Education and Training") S73 "physical education and training" S74 (MH "Physical Fitness") S75 TI sedentary OR AB sedentary S76 (MH "Life Style+") S77 (MH "Leisure Activities+") S78 (MH "Sports+") S79 (MH "Dancing") OR "Dancing" S80 TI (exercise\* n1 aerobic\*) OR AB (exercise\* n1 aerobic\*) S81 TI sport\* OR AB sport\* S82 TI ( ((life style or life style) n5 activ\*) ) OR AB ( ((life style or life style) n5 activ\*) ) S83 S68 OR S69 OR S70 OR S71 OR S72 OR S73 OR S74 OR S75 OR S76 OR S77 OR S78 OR S79 OR S80 OR S81 OR S82 S84 (MH "Diet+") S85 "nutrition\*" S86 "healthy eating" S87 TI fruit\* OR AB fruit\* S88 TI vegetable\* OR AB vegetable\* S89 canteen S90 TI menu OR AB menu S91 TI ( (calorie or calories) ) OR AB ( (calorie or calories) )

Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and 20 obesity (Protocol)

S92 TI "energy intake" OR AB "energy intake" S93 TI "energy density" OR AB "energy density" S94 TI eating OR AB eating S95 TI ( (feeding behavior or feeding behaviour) ) OR AB ( (feeding behavior or feeding behaviour) ) S96 TI "dietary intake" OR AB "dietary intake" S97 TI food OR AB food S98 TI "soft drink\*" OR AB "soft drink\*" S99 TI soda OR AB soda S100 TI "sweetened drink\*" OR AB "sweetened drink\*" S101 TI fat OR AB fat S102 TI confectionary OR AB confectionary S103 TI "menu planning" AND AB "menu planning" S104 TI "feeding program\*" OR AB "feeding program\*" S105 TI "nutrition program\*" OR AB "nutrition program\*" S106 TI "nutritional program\*" OR AB "nutritional program\*" S107 TI cafeteria\* OR AB cafeteria\* S108 TI "nutritional status" OR AB "nutritional status" S109 S84 OR S85 OR S86 OR S87 OR S88 OR S89 OR S90 OR S91 OR S92 OR S93 OR S94 OR S95 OR S96 OR S97 OR S98 OR \$99 OR \$100 OR \$101 OR \$102 OR \$103 OR \$104 OR \$105 OR \$106 OR \$107 OR \$108 S110 (MH "Smoking+") S111 (MH "Smoking Cessation Programs") S112 smok\* S113 nicotine S114 (MH "Tobacco+") OR "tobacco" S115 S110 OR S111 OR S112 OR S113 OR S114 S116 TI cessation OR AB cessation S117 TI prevent\* OR AB prevent\* S118 TI stop\* OR AB stop\* S119 TI quit\* OR AB quit\* S120 TI abstin\* OR AB abstin\* S121 TI abstain\* OR AB abstain\* S122 TI reduc\* OR AB reduc\* S123 TI "tobacco use disorder" OR AB "tobacco use disorder" S124 TI ex-smoker\* OR AB ex-smoker\* S125 TI anti-smok\* OR AB anti-smok\* S126 S116 OR S117 OR S118 OR S119 OR S120 OR S121 OR S122 OR S123 OR S124 OR S125 S127 S115 AND S126 S128 (MH "Alcohols+") S129 (MH "Alcohol Drinking+") S130 (MH "Alcohol Abuse") S131 alcohol\* S132 Drink\* S133 liquor\* S134 beer\* S135 wine\* S136 spirit\* S137 drunk\* S138 intoxicat\* S139 binge S140 S128 OR S129 OR S130 OR S131 OR S132 OR S133 OR S134 OR S135 OR S136 OR S137 OR S138 OR S139 S141 S67 OR S83 OR S109 OR S127 OR S140 S142 S5 AND S32 AND S55 AND S141 CENTRAL

Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and obesity (Protocol)

ID Search #1 MeSH descriptor: [Workplace] this term only #2 MeSH descriptor: [Work] this term only #3 MeSH descriptor: [Occupational Health] this term only #4 MeSH descriptor: [Occupational Medicine] this term only #5 {or #1-#4} #6 MeSH descriptor: [Health Behavior] this term only #7 MeSH descriptor: [Health Education] this term only #8 MeSH descriptor: [Health Promotion] this term only #9 MeSH descriptor: [Healthy People Programs] this term only #10 MeSH descriptor: [Primary Prevention] explode all trees #11 MeSH descriptor: [Randomized Controlled Trial] this term only #12 MeSH descriptor: [Controlled Clinical Trial] this term only #13 MeSH descriptor: [Clinical Trials as Topic] this term only #14 MeSH descriptor: [Random Allocation] this term only #15 MeSH descriptor: [Evaluation Studies] this term only #16 MeSH descriptor: [Comparative Study] this term only #17 random\*:ti,ab #18 trial:ti,ab #19 groups:ti,ab #20 placebo:ti,ab #21 experiment\*:ti,ab #22 (time near/1 series):ti,ab #23 (pretest or pre test or posttest or post test):ti,ab #24 impact:ti,ab #25 change\*:ti,ab #26 evaluat\*:ti,ab #27 effect\*:ti,ab #28 "before and after":ti,ab #29 intervention\*:ti,ab #30 program\*:ti,ab #31 compare\*:ti,ab #32 (control or controls\* or controla\* or controle\* or controli or controll\*):ti,ab #33 {or #6-#32} #34 implement\* #35 dissemin\* #36 adopt\* #37 practice\* #38 organi?ational change\* #39 diffus\* #40 (system\* near/2 change\*) #41 quality improvement\* #42 transform\* #43 translat\* #44 transfer\* #45 uptake\* #46 sustainab\* #47 institutionali\* #48 routin\* #49 maintenance #50 capacity #51 incorporat\* #52 adher\*

Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and 22 obesity (Protocol)

#53 integrat\*

#54 scal\*

#55 ((polic\* or practice\* or program\* or innovation\*) near/5 (performance or feedback or prompt\* or reminder\* or incentive\* or penalt\* or communicat\* or social market\* or professional development or network\* or leadership or opinion leader\* or consensus process\* or change manage\* or train\* or audit\*))

#56 {or #34-#55}

#57 MeSH descriptor: [Obesity] explode all trees

#58 MeSH descriptor: [Weight Gain] this term only

#59 MeSH descriptor: [Weight Loss] this term only

#60 obes\*

#61 (weight gain or weight loss)

#62 (overweight or over weight or overeat\* or over eat\*)

#63 weight change\*

#64 ((bmi or body mass index) near/2 (gain or loss or change))

#65 MeSH descriptor: [Primary Prevention] explode all trees

#66 (primary prevention or secondary prevention)

#67 (preventive measure\* or preventative measure\*)

#68 (preventive care or preventative care)

#69 (obesity near/2 (prevent\* or treat\*))

#70 {or #57-#69}

#71 MeSH descriptor: [Exercise] explode all trees

#72 physical inactivity

#73 physical activity

#74 MeSH descriptor: [Motor Activity] explode all trees

#75 "physical education and training"

#76 MeSH descriptor: [Physical Education and Training] explode all trees

#77 MeSH descriptor: [Physical Fitness] this term only

#78 sedentary:ti,ab

#79 MeSH descriptor: [Life Style] explode all trees

#80 MeSH descriptor: [Leisure Activities] explode all trees

#81 MeSH descriptor: [Sports] explode all trees

#82 MeSH descriptor: [Dancing] this term only

#83 dancing

#84 (exercise\* near/1 aerobic\*)

#85 sport\*:ti,ab

#86 ((life style or life style) near/5 activ\*):ti,ab

#87 {or #71-#86}

#88 MeSH descriptor: [Diet] explode all trees

#89 nutrition\*

#90 healthy eating
#91 fruit\*:ti,ab

#92 vegetable\*:ti,ab

#93 canteen

#94 menu:ti,ab

#95 (calorie or calories):ti,ab

#96 energy intake:ti,ab

#97 energy density:ti,ab

#98 eating:ti,ab

#99 (feeding behavior or feeding behaviour):ti,ab

#100 dietary intake:ti,ab

#101 food:ti,ab

#102 soft drink\*:ti,ab

#103 soda:ti,ab

Strategies to improve the implementation of workplace-based policies or practices targeting tobacco, alcohol, diet, physical activity and 23 obesity (Protocol)

#104 sweetened drink\*:ti,ab #105 fat:ti,ab #106 confectionary:ti,ab #107 menu planning:ti,ab #108 feeding program\*:ti,ab #109 nutrition program\*:ti,ab #110 nutritional program\*:ti,ab #111 cafeteria\*:ti.ab #112 nutritional status:ti,ab #113 {or #88-#112} #114 MeSH descriptor: [Smoking] explode all trees #115 MeSH descriptor: [Tobacco Use Cessation] explode all trees #116 smok\* #117 nicotine #118 tobacco use\* #119 tobacco #120 MeSH descriptor: [Tobacco] explode all trees #121 {or #114-#120} #122 cessation:ti,ab #123 prevent\*:ti,ab #124 stop\*:ti,ab #125 quit\*:ti,ab #126 abstin\*:ti,ab #127 abstain\*:ti.ab #128 reduc\*:ti.ab #129 "tobacco use disorder":ti,ab #130 ex-smoker\*:ti,ab #131 anti-smok\*:ti,ab #132 {or #122-#131} #133 {and #121, #132} #134 MeSH descriptor: [Alcohols] explode all trees #135 MeSH descriptor: [Alcohol Drinking] explode all trees #136 MeSH descriptor: [Alcoholism] explode all trees #137 MeSH descriptor: [Ethanol] explode all trees #138 alcohol\* #139 Drink\* #140 liquor\* #141 beer\* #142 wine\* #143 spirit\* #144 drunk\* #145 intoxicat\* #146 binge #147 {or #134-#146} #148 {or #70, #87, #113, #133, #147} #149 {and #5, #33, #56, #148} ERIC Work or workplace or "occupational medicine" or "occupational health"

And

"health behavior" or "health behaviour" or "health education" or "health promotion" or "primary prevention" or random\* or "evaluation stud\*" or "comparative stud\*" or trial or groups or placebo or experiment\* or (time and series) or pretest or "pre test" or posttest or "post test" or impact or change\* or evaluat\* or effect\* or "before and after" or intervention\* or program\* or compare\* or control or controls\* or controle\* or controlie or controlies

### and

implement\* or disseminat\* or adopt\* or practice\* or organi?ational change\* or diffus\* or (system\* and change\*) or quality improvement\* or transform\* or translat\* or transfer\* or uptake\* or sustainab\* or institutionali\* or routin\* or maintenance or capacity or incorporat\* or adher\* or integrat\* or scal\* or ((polic\* or practice\* or program\* or innovation\*) and (performance or feedback or prompt\* or reminder\* or incentive\* or penalt\* or communicat\* or social market\* or professional development or network\* or leadership or opinion leader\* or consensus process\* or change manage\* or train\* or audit\*)) and

obes\* or weight gain or weight loss or overweight or over weight or overeat\* or over eat\* or weight change\* or ((bmi or body mass index) and (gain or loss or change)) or primary prevention or secondary prevention or preventive measure\* or preventative measure\* or preventive care or preventative care or (obesity and (prevent\* or treat\*)) or exercise or physical inactivity or physical activity or Motor Activity or (physical education and training) or Physical Fitness or sedentary or Life Style or Leisure Activiti\* or sport\* or dancing or diet or nutrition\* or healthy eating or fruit\* or vegetable\* or canteen or food or menu or calorie or calories or energy intake or energy density or eating or feeding behavior or feeding behaviour or dietary intake or soft drink\* or soda or sweetened drink\* or fat or confectionary or feeding program\* or cafeteria\* or ((smok\* or tobacco or nictotine) and (cessation or stop\* or quit\* or abstin\* or abstain\* or reduc\* or ex-smoker\* or anti-smok\*)) or alcohol\* or drink\* or liquor\* or beer\* or wine\* or spirit\* or drunk\* or intoxicat\* or binge

### **SCOPUS**

TITLE-ABS-KEY (workplace OR "occupational medicine" OR "occupational health")

AND TITLE-ABS-KEY ( "health behavior\*" OR "health behaviour\*" OR "health education" OR "health promotion" OR "primary prevention" OR random\* OR "evaluation stud\*" OR "comparative stud\*" OR trial OR groups OR placebo OR experiment\* OR ( time AND series ) OR pretest OR "pre test" OR posttest OR "post test" OR impact OR change\* OR evaluat\* OR effect\* OR "before and after" OR intervention\* OR program\* OR compare\* OR control OR controls\* OR controla\* OR controle\* OR controli OR controll\* )

AND TITLE-ABS-KEY ( implement\* OR disseminat\* OR adopt\* OR practice\* OR organi?ational change\* OR diffus\* OR ( system\* AND change\* ) OR quality improvement\* OR transform\* OR translat\* OR transfer\* OR uptake\* OR sustainab\* OR institutionali\* OR routin\* OR maintenance OR capacity OR incorporat\* OR adher\* OR integrat\* OR scal\* OR ( ( polic\* OR practice\* OR program\* OR innovation\* ) AND ( performance OR feedback OR prompt\* OR reminder\* OR incentive\* OR penalt\* OR communicat\* OR social market\* OR professional development OR network\* OR leadership OR opinion leader\* OR consensus process\* OR change manage\* OR train\* OR audit\* ) ) )

AND TITLE-ABS-KEY (obes\* or weight gain or weight loss or overweight or over weight or overeat\* or over eat\* or weight change\* or ((bmi or body mass index) and (gain or loss or change)) or primary prevention or secondary prevention or preventive measure\* or preventative measure\* or preventative care or preventative care or (obesity and (prevent\* or treat\*)) or exercise or physical inactivity or physical activity or Motor Activity or (physical education and training) or Physical Fitness or sedentary or Life Style or Leisure Activiti\* or sport\* or dancing or diet or nutrition\* or healthy eating or fruit\* or vegetable\* or canteen or food or menu or calorie or calories or energy intake or energy density or eating or feeding behavior or feeding behaviour or dietary intake or soft drink\* or soda or sweetened drink\* or fat or confectionary or feeding program\* or cafeteria\* or ((smok\* or tobacco or nictotine) and (cessation or stop\* or quit\* or abstain\* or reduc\* or ex-smoker\* or anti-smok\*)) or alcohol\* or drink\* or liquor\* or beer\* or wine\* or spirit\* or drunk\* or intoxicat\* or binge)

AND (LIMIT-TO (SUBJAREA, "MEDI") OR LIMIT-TO (SUBJAREA, "SOCI") OR LIMIT-TO (SUBJAREA, "NURS") OR LIMIT-TO (SUBJAREA, "HEAL")) AND (LIMIT-TO (EXACTKEYWORD, "Human") OR LIMIT-TO (EXACTKEYWORD, "Humans")) AND (EXCLUDE (SUBJAREA, "BUSI") OR EXCLUDE (SUBJAREA, "CENG") OR EXCLUDE (SUBJAREA, "CHEM") OR EXCLUDE (SUBJAREA, "COMP") OR EXCLUDE (SUBJAREA, "DECI") OR EXCLUDE (SUBJAREA, "ARTS") OR EXCLUDE (SUBJAREA, "ECON") OR EXCLUDE (SUBJAREA, "PHYS") OR EXCLUDE (SUBJAREA, "MATH") OR EXCLUDE (SUBJAREA, "ENER") OR EXCLUDE (SUBJAREA, "VETE"))

# CONTRIBUTIONS OF AUTHORS

Luke Wolfenden and Sze Lin Yoong led the development of the review protocol. Debbie Booth developed the search strategy. All authors contributed to the conception of the protocol, provided critical comment on drafts, and read and approved the final version.

# **DECLARATIONS OF INTEREST**

Luke Wolfenden: none known Tim Regan: none known Sze Lin Yoong: none known Christopher M Williams: none known John Wiggers: none known Melanie Kingsland: none known Andrew Milat: none known Chris Rissel: none known Adrian Bauman: none known Debbie Booth: none known Margaret M Farrell: none known France Légaré: none known Hervé Tchala Vignon Zomahoun: none known Benjamin Parmenter: none known Ali Ben Charif: none known

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# Internal sources

• No sources of support supplied

### **External sources**

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