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Final Report RFQ (15/013) – Research Translation in Aboriginal and Torres Strait Islander health research

Overview of systematic reviews of research into the health of Aboriginal and Torres Strait Islander peoples

Prepared for the National Health and Medical Research Council (NHMRC) by the Australasian Cochrane Centre (ACC) 15 June 2015



WORKING TO BUILD A HEALTHY AUSTRALIA

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Executive summary

Background and scope

In April 2015, the Australasian Cochrane Centre was contracted by the Office of the National Health and Medical Research Council (ONHMRC) to identify current systematic reviews (2012 onwards) that had included studies involving Aboriginal and/or Torres Strait Islander peoples and considered effects of interventions on health. The resulting overview of systematic reviews (the 'Overview') reports the characteristics of identified reviews and their included studies summarising:

- 1. *The question(s) each review aimed to address*. Captured in the review objectives and the criteria used to determine eligibility of studies for inclusion in the review (participants, interventions, comparators, outcomes and study design "PICOS" criteria).
- 2. The extent to which primary research evidence addressed the review question. Captured by the characteristics of studies included in the review (how closely they match the PICOS criteria) and the number of studies and participants included in the review (the volume of evidence). Reported separately for the review as a whole, and for those studies involving Aboriginal and Torres Strait Islander peoples.

In line with the scope specified by the OHNMRC, the Overview does not report or synthesise findings about the effects of interventions or the quality of evidence supporting intervention effects. Nor does it assess coverage of the identified reviews in relation to priority needs.

Additional aims were to list systematic reviews and trials that help capture the broader review and trial literature potentially relevant to the health of Aboriginal and/or Torres Strait Islander peoples.

Methods

The methods used in the Overview were based on published guidance on the conduct and reporting of overviews of systematic reviews (Becker 2011).

Reviews published since 2012 were located using a systematic search of bibliographic databases (PubMed, Embase), collections of systematic reviews (Cochrane Library, PDQ Evidence, Epistemonikos) and websites of institutes and organisations dedicated to Aboriginal and Torres Strait Islander health (ATSIhealth, Healthinfonet, AIHW Closing the Gap clearinghouse). Searches were conducted on 23 March 2015. Additional searches were conducted to identify trials not yet included in a systematic review. Records retrieved by the search were independently screened by two authors against pre-specified eligibility criteria. The characteristics of included reviews and their included studies were extracted and summarised. The methodological quality of reviews was assessed using the ROBIS (risk of bias in systematic reviews) tool.

Results

The search identified 25 reviews that met all inclusion criteria.

- Six reviews addressed questions in relation to the health of Aboriginal and Torres Strait Islander peoples
- Eleven reviews involved Indigenous peoples from any nation (7 reviews) or from Australia, New Zealand, Canada and the United States (4 reviews)

• The remainder considered any population (8 reviews)

The 25 reviews included 18 unique controlled trials involving Aboriginal and Torres Strait Islander peoples and more than 50 quantitative evaluations using non-comparative designs (number of unique studies not reported in all reviews).

Types of interventions: 10 reviews considered interventions categorised as clinical (prevention, treatment, screening), 12 considered public health interventions (sometimes combined with individually focused prevention), and three reviews related to health service delivery.

Coverage by condition: The most common areas were maternal and child health (9 reviews), smoking cessation (4 reviews), substance use prevention or treatment (3 reviews), mental health (2 reviews), diabetes (2 reviews), and parenting (2 reviews). Some reviews covered multiple areas (e.g. diabetes during pregnancy, care for people with severe mental illness and substance use).

Lists of trials and (out of scope) systematic reviews that help capture the broader trial and review literature potentially relevant to the health of Aboriginal and Torres Strait Islander peoples were collated and reported in Appendices as follows:

- Trials not yet included in systematic reviews (32 trials): This list includes published peerreviewed papers reporting results of randomised trials and non-randomised trials with concurrent controls. Trials were categorised broadly by topic as: physical activity and nutrition (10 trials), ear health (6 trials), communicable disease (4 trials), smoking cessation (4 trials), cardiovascular health and diabetes (2 trials), health promotion and well-being (2 trials), oral health (2 trials), and substance use (2 trials). Appendix 5
- Systematic reviews with *potential for updating* (i.e. those with a search prior to 2011) that included one or more trials involving Aboriginal and/or Torres Strait Islander peoples (16 reviews; Appendix 6)
- Systematic reviews that explicitly planned to include studies involving Aboriginal and/or Torres Strait Islander peoples, but did not identify any such studies (12 reviews; Appendix 7). These reviews help *capture gaps in primary research*.
- Systematic reviews that examined *factors influencing implementation* of interventions (e.g. acceptability, barriers and facilitators) (21 reviews; Appendix 8)
- Systematic reviews that examined *prevalence or risk factors* among Aboriginal and/or Torres Strait Islander peoples (47 reviews; Appendix 9). These reviews may help *identify priority needs.*
- Systematic reviews that included studies involving indigenous peoples from New Zealand, Canada or the USA, but not Australia (7 reviews; Appendix 10)

Conclusions

This Overview of reviews identified and summarised the characteristics of current systematic reviews that included quantitative evaluations of the effects of interventions (including programs and services) on the health of Aboriginal and Torres Strait Islander peoples. Controlled trials yet to be included in a systematic review were also identified. In so doing, the Overview provides information about the type and volume of current review evidence available for informing policy and practice. The Overview also identifies gaps in systematic review activity, providing information to inform decisions about where new or updated reviews may be needed, as well as a list of epidemiological reviews, the findings of which may highlight the need for intervention research.

The Australasian Cochrane Centre

The Australasian Cochrane Centre (ACC) is nationally and internationally known for its work on evidence synthesis and implementation, including systematic reviews, overviews and clinical practice guideline development. Our expertise includes literature searching, critical appraisal (of clinical trials and systematic reviews), methods of statistical and narrative synthesis, complex reviews and using GRADE (Grading of Recommendations Assessment, Development and Evaluation) principles to interpret evidence and derive recommendations. We have extensive experience in writing and editing Cochrane systematic reviews, summarising evidence in various formats, and producing guidance for policy makers. In the past two years we have been contracted by the National Health and Medical Research Council (NHMRC) to conduct three Natural Therapies overviews; seven methodological reviews (six overviews, one guideline); and a systematic review (in partnership with Monash Centre for Occupational and Environmental Health) of additional evidence on wind farms and human health.

Name	Position	Role
Dr Sue Brennan	Research Fellow	Project oversight; design of data extraction methods and tools; data collection and checking; ROBIS assessments; writing of summaries; drafting overview report.
Steve McDonald	Senior Research Fellow	Literature searching; critical review of drafts and contributions to writing of the report (lead on search methods).
Dr Catherine Chamberlain	Senior Research Fellow	Provision of content specific advice relating to Aboriginal and Torres Strait Islander populations; critical review of drafts and contributions to writing of the report.
Madeleine Hill	Research Assistant	Citation screening and reference management; data collection; contributions to compilation of report and appendices.
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Carole Lunny	Research Assistant	Assessment of systematic review quality (ROBIS).

Contributors to this Overview

Declaration of interests

None of the specified personnel have any relevant declarations.

1 Background

In April 2015, the Australasian Cochrane Centre (ACC) was contracted by the Office of the National Health and Medical Research Council (ONHMRC) to identify and appraise the methodological quality of current systematic reviews (published 2012 on) that had included studies involving Aboriginal and/or Torres Strait Islander peoples. The resulting overview of systematic reviews (the 'Overview') comprises the following:

- A summary of the characteristics of each systematic review included in the Overview.
- An appraisal of the methods of each systematic review included in the Overview.
- A list of trials (randomised, quasi-randomised, cluster-randomised, controlled nonrandomised) involving Aboriginal and/or Torres Strait Islander peoples that are yet to be included in published systematic reviews.

1.1 Context for this Overview

The context for this Overview, as described by the ONHMRC, is as follows (verbatim extract from the Statement of Requirement written by the ONHMRC).

"The National Health and Medical Research Council (NHMRC) is charged by its legislation, the National Health and Medical Research Council Act 1992, with raising the standard of individual and public health throughout Australia and fostering the development of consistent health standards, research and training, and the consideration of ethical issues. NHMRC achieves this by making recommendations, issuing guidelines, advice, and funding research.

The NHMRC Strategic Plan outlines that it will continue to commit at least 5% of its funding of research, capacity building and research translation to Aboriginal and Torres Strait Islander health. Further, it will now also review the outcomes of the previous decade of this funding commitment and provide the findings to authorities responsible for health care.

NHMRC established the Research Translation Faculty, a key advisory forum which all NHMRC funded Chief Investigators and Fellows are eligible to join. The first task for the Faculty has been to help NHMRC identify the most significant gaps between research evidence and health policy and practice, and develop a compelling case for NHMRC on how to address those gaps - a Case for Action. Possible actions on how to address a gap might include advice to government about health policy, clinical or public health guidelines, or opportunities to collaborate with strategic partners.

Whilst there are no specific Cases for Action focussed on Aboriginal and Torres Strait Islander health, the Principal Committee Indigenous Caucus (PCIC) has had opportunity to comment on the existing Cases for Action, and develop their own if they so wish.

NHMRC is also forging a stronger working relationship with the Cochrane Collaboration, an international organisation that brings together groups of people, most of whom volunteer, to identify, synthesise and interpret the body of evidence pertaining to specific healthcare questions. It is NHMRC's intention to put the wealth of information produced by the Collaboration, including the systematic reviews they publish, to better use."

2 Objectives

The objectives of this Overview, as specified by the OHNMRC, were:

- 1. To identify all current systematic reviews of the effects of interventions (including programs and services) intended to improve health that included studies involving Aboriginal or Torres Strait Islander peoples.
- 2. To summarise the characteristics of the identified systematic reviews and their included studies, highlighting studies that involved Aboriginal or Torres Strait Islander peoples.
- 3. To identify and list publications of trials (randomised, quasi-randomised, clusterrandomised, controlled non-randomised) involving Aboriginal or Torres Strait Islander Australian peoples that are not yet included in systematic reviews.

In addition, we also planned to note and provide reference lists of the following (out of scope reviews):

- Systematic reviews with *potential for updating* (i.e. not current, but included one or more trials involving Aboriginal and/or Torres Strait Islander peoples)
- Systematic reviews that explicitly planned to include studies involving Aboriginal and/or Torres Strait Islander peoples, but did not identify any such studies
- Systematic reviews that examined *factors influencing implementation* of interventions (e.g. barriers and facilitators, acceptability)
- Systematic reviews that examined *prevalence or risk factors* among Aboriginal and/or Torres Strait Islander peoples
- Systematic reviews that included studies involving indigenous peoples from New Zealand, Canada or the USA, but not Australia.

Consideration of (1) findings about the effects of interventions from reviews included in this Overview, and (2) systematic reviews examining priorities or needs for health interventions among Aboriginal and/or Torres Strait Islander peoples, are both outside the scope of this Overview.

3 Methods

The methods used in this Overview are based on published guidance on the conduct and reporting of overviews of systematic reviews (Becker 2011).

This Overview focuses on identifying systematic reviews and reporting their characteristics and those of their included studies. To do so we summarise information pertaining to:

1. *The question(s) each review aimed to address*. This is captured in the review objectives and the criteria used to determine eligibility of studies for inclusion in the review (participants, interventions, comparators, outcomes and study design - "PICOS" criteria).

2. *The extent to which primary research evidence addressed the review question.* This is captured by the characteristics of studies included in the review (how closely they match the PICOS criteria) and the number of studies and participants included in the review (the volume of evidence).

We do not report or synthesise findings about the effects of interventions or the quality of evidence supporting intervention effects (i.e. assessment of the risk of bias in individual studies; GRADE assessments of the quality of the body of evidence). Nor do we report the findings of individual studies.

A second aim of the Overview is to identify trials not yet included in systematic reviews. We provide a reference list for these trials, but do not report any other characteristics.

3.1 Terminology

Reviews, studies, evaluations: Throughout this Overview, we refer to systematic reviews as 'reviews' and primary research as 'studies' or 'evaluations' (used interchangeably).

Reports and publications: A study (or evaluation) may be comprised of one or more reports (whether peer reviewed research publications, policy evaluations, grey literature or other reports). For example, a single study may result in separate publications reporting the design of a program or service, the protocol for evaluating the program, and the results of the evaluation. Where possible, we report number of studies rather than number of reports.

Programs and services: Some reviews reported findings from evaluation of programs and services arising from multiple independent studies, without delineating the contribution of individual studies to the evaluation. In such circumstances, we report number of programs evaluated rather than number of studies.

In Section 3.2 Criteria for considering reviews for inclusion in this Overview, we explain our usage of 'Aboriginal' (Section 3.2.2), 'Indigenous' (Section 3.2.2) and 'intervention' (Section 3.2.3).

3.2 Criteria for considering reviews for this Overview

The following eligibility criteria were pre-specified for inclusion of systematic reviews.

3.2.1 Types of reviews and included studies

Systematic reviews of primary studies reporting quantitative evaluations of the effects of interventions were considered for inclusion in this Overview.

We defined 'systematic review' according to the definition published by the Cochrane Collaboration (Cochrane Collaboration 2005), in which systematic and explicit methods are used to:

- review a clearly formulated question,
- identify, select, and critically appraise relevant research, and
- collect and analyse data from studies included in the review.

Analysis was defined broadly, including any approach to summarise or synthesise quantitative results from included studies (e.g. statistical synthesis using meta-analytic methods; summary in text and tables).

Reviews that addressed other types of questions (e.g. development and description of programs or services; current clinical practice) or included qualitative evaluations, were considered for inclusion provided that they also aimed to review intervention effects from quantitative evaluations.

Reviews were excluded if they did not include at least one primary study involving quantitative evaluation of intervention effects. No restrictions were placed on the design of quantitative evaluations. This approach ensured we captured as many reviews as possible, while also aligning with the ONHMRC's aim of identifying trials that have been included in systematic reviews.

3.2.2 Types of participants

We considered reviews including any population providing that the review included at least one primary study that involved Aboriginal or Torres Strait Islander peoples. To meet our study design eligibility criteria, the study had to report a quantitative evaluation of the effects of interventions. Studies in which participants were non-Aboriginal health professionals or service providers were included provided that the study evaluated an intervention intended to improve the health of Aboriginal or Torres Strait Islander peoples (e.g. culturally tailored models of care; approaches for improving cultural competence).

Throughout the Overview, we use the term 'Aboriginal' (as in 'Aboriginal women' and 'Aboriginal children') to refer collectively to people who identify as Aboriginal in Australia (Department of Aboriginal Affairs, 1981). We use the term 'Indigenous' as a collective name for people who are the descendants of the first inhabitants of other nations. We use these terms with respect for the autonomy and diversity of Aboriginal and Indigenous peoples.

3.2.3 Types of interventions

We considered reviews that examined the effects of any intervention. The term 'intervention' is used to refer to:

- Preventive care and health promotion (e.g. programs to prepare women for pregnancy and childbirth, vaccination programs, smoking cessation)
- Screening for prevention and early detection of health conditions (e.g. screening for diabetes), excluding studies that reported only the accuracy of tests
- Clinical treatments and modalities (e.g. psychosocial interventions for people with mental illness, antibiotics)
- Models of care and service delivery (e.g. integrated care for complex and chronic health conditions, Aboriginal health workers, specialist outreach services)
- Approaches used to improve health professional practice and the quality of care (e.g. cultural competence education, clinical audit)
- Approaches and tools used to support patient communication and decision making (e.g. decision aids)
- Other programs, policies, services or strategies that have as one of their aims, the improvement of health (e.g. parenting programs).

We have used the term 'intervention' in this Overview because of its widespread usage and meaning in the evaluation of health care, and within Cochrane review methodology more specifically. However, in the policy context for Aboriginal and Torres Strait Islander peoples this term has been used to refer to controversial government strategies, and we respectfully acknowledge these concerns.

3.2.4 Types of outcomes

Reviews that reported any health or public health outcome were considered for inclusion. We used a broad definition of health outcome, including outcomes that are known or potential determinants of health (e.g. patient knowledge and self-efficacy, health behaviours such as diet) and measures of professional practice and service performance (e.g. test ordering, referrals, wait times).

In identifying health outcomes, we considered the definition of "Aboriginal health" from the National Aboriginal Community Controlled Health Organisation's (NACCHO) Constitution:

"Aboriginal health" means not just the physical well-being of an individual but refers to the social, emotional and cultural well-being of the whole Community in which each individual is able to achieve their full potential as a human being thereby bringing about the total well-being of their Community. It is a whole of life view and includes the cyclical concept of life-death-life."

(NACCHO Constitution amended 9 March 2006 also from the National Aboriginal Health Strategy (NAHS) 1989. See <u>http://www.naccho.org.au/aboriginal-health/definitions/</u>)

3.2.5 Currency and validity of reviews

Currency: In line with NHMRC requirements, only 'current' systematic reviews were considered for inclusion in the Overview. A current systematic review was defined as a review published since 2012 with a search date of January 2011 or later.

Validity: Systematic reviews that met all other eligibility criteria were evaluated using the ROBIS (risk of bias in systematic reviews) tool to confirm that they met minimum definitional criteria for a systematic review (Whiting 2014). These criteria were pre-specified as follows.

- No important concerns regarding specification of eligibility criteria (Domain 1 of the ROBIS tool); and
- No important concerns regarding identification and selection of studies (Domain 2 of the ROBIS tool).

Using the ROBIS criteria provides a transparent means by which to confirm that a review is a systematic review, and lessens the chance that included reviews will have excluded or missed relevant and important studies.

3.3 Search Methods

3.3.1 Systematic reviews

We searched the following bibliographic databases, collections of systematic reviews and websites of institutes and organisations dedicated to Aboriginal and Torres Strait Islander health for reports of systematic reviews published since 2012: PubMed, Embase, ATSIhealth, Cochrane Library, PDQ Evidence, Epistemonikos, Healthinfonet and the AIHW Closing the Gap clearinghouse. The specialist collections of Aboriginal and Torres Strait Islander health contain

grey literature sources, such as government reports, which are not routinely indexed in databases like PubMed. Searches were conducted on 23 March 2015.

For PubMed we applied the filter developed by the Lowitja Institute for retrieving Aboriginal and Torres Strait Islander health literature (Tieman 2014). Records retrieved by the filter were restricted to reports of reviews using the PubMed Clinical Queries for Systematic Reviews filter combined with the Publication Type term 'Review' (see Appendix 1 for details of all search strategies). For Embase we applied the systematic reviews filter used by the Canadian Agency for Drugs and Technologies in Health (CADTH 2014).

In addition to searching the Cochrane Library for reviews published since 2012, we sought to identify any Cochrane Review that may have included studies involving Aboriginal and/or Torres Strait Islander peoples. This was done by limiting searches to relevant terms (indigenous, aboriginal or torres) appearing in Tables of Cochrane Reviews, based on the assumption that any eligible studies would be described in the 'Characteristics of included studies' table

3.3.2 Randomised trials

To identify randomised trials (randomised, quasi-randomised, cluster-randomised, controlled non-randomised) involving Aboriginal and/or Torres Strait Islander peoples we searched the Cochrane Central Register of Controlled Trials (CENTRAL) (Issue 3, 2015). Records with Indigenous, Aboriginal or Torres in the title, abstract or keywords fields were downloaded.

3.4 Data collection and analysis

3.4.1 Selection of reviews

Two authors (SB, MH) independently screened titles and abstracts of records retrieved from the search for systematic reviews. The full text of all potentially eligible reviews (those that could not be clearly excluded based on abstract) was screened by one author (SB) to confirm inclusion. Inclusion decisions were confirmed by a second author (MH or LC).

3.4.2 Selection of trials

Two authors (SB, MH) independently screened titles and abstracts of records retrieved from the CENTRAL search for trials (i.e. the search used to identify trials not yet included in systematic reviews). Decisions to list trials were based on title and abstract alone; full text was not retrieved. Records were screened to exclude studies involving indigenous populations from outside Australia. When trial protocols were identified, further searching was done to confirm whether results from the trial had been published. We then cross-checked each citation against Epistemonikos to identify if any of the studies had been included in systematic reviews that we may have overlooked or that were published before 2012. Trials not included in a systematic review were noted.

3.4.3 Data extraction and management

A data extraction form was developed by one author (SB) with input from two others (CC, SM). Two authors (SB, LC) piloted the form on four systematic reviews and their included studies. After an initial round of data extraction (2 reviews) and feedback on the extracted data (CC), the form was revised to improve consistency of data extraction and the utility of information arising. Further minor refinements were made in a subsequent round of testing (2 reviews).

Data were extracted by one author (LC, MH or SB), and checked for a subset of reviews (19 of 25 reviews) by a second author (SB).

The types of data extracted were:

1. Characteristics of the review

- Objectives
- Criteria used to determine eligibility of studies for inclusion in the review (study design(s) participants, interventions, comparators, outcomes)
- Volume of evidence (number of: included studies, ongoing studies, participants) overall and from studies involving Aboriginal and/or Torres Strait Islander peoples. These data were limited to quantitative evaluations only
- Whether the review used a framework to consider equity implications (e.g. PROGRESSplus, other equity lens), particularly for Aboriginal and Torres Strait Islander people and communities
- 2. Characteristics of all studies included in the review (quantitative evaluations only):
 - Study design(s), participants, interventions, comparators and outcomes. These data were extracted to provide information from which to assess the overall applicability of the review

3. Characteristics of included studies involving Aboriginal and Torres Strait Islander people

• Study design(s), participants, interventions, comparators and outcomes. These data were extracted to provide information on the extent and type of evidence available from studies directly applicable to Aboriginal and Torres Strait Islander people.

Characteristics of included studies were extracted from the review where sufficient information was available. Selected reports of studies involving Aboriginal or Torres Strait Islander peoples were retrieved, where necessary, to check or augment data reported in the systematic review (19 of 25 reviews). Retrieved studies included all trials except those not readily available from an electronic source (e.g. some grey literature reports).

3.4.4 Methodological quality of systematic reviews: Risk of Bias assessment

As with all types of research, the design, conduct and reporting of systematic reviews may introduce biases that systematically influence review findings. The ROBIS (risk of bias in systematic reviews) tool was developed to assess potential biases arising from the review methods and reporting (Whiting 2014). ROBIS assessment does not include assessment of the quality of evidence arising from studies included in the review (such as would be assessed by GRADE or equivalent tools).

ROBIS involves assessment of concerns about the review process in relation to four domains:

- Domain 1: specification of study eligibility criteria
- Domain 2: methods used to identify and/or select studies
- Domain 3: methods used to collect data and appraise studies
- Domain 4: synthesis and finding

The final phase involves judging the overall risk of bias by assessing whether (i) the interpretation of findings addressed concerns relating to domains 1 to 4, (ii) the relevance of the evidence to the review question was considered in formulating conclusions, and (iii) emphasis of results based on statistical significance was avoided. Based on this assessment, reviews receive an overall rating of low, unclear or high risk of bias.

All current reviews meeting the PICOS criteria for this Overview were assessed using ROBIS by one author (CL or SB) and a subset (15 of 25 reviews) checked by a second author (SB).

3.5 Summary of the characteristics of included reviews

One author (SB) prepared summaries of the characteristics of each of the included reviews using a template adapted from that used for the CRISP summaries (Cochrane reviews identified and summarised for policy: policymakers.evidencemap.org/) produced by the Australasian Cochrane Centre. The resulting summaries incorporate characteristics of each review and their included studies as specified under data extraction.

In addition to writing a summary for each included review, we also tabulated brief information intended to capture the scope of the included reviews. This included a précis of the main objective of the review, the type of review question (effectiveness or broader), the population covered by the review (any, Indigenous, Aboriginal and/or Torres Strait Islander peoples), the types of studies include in the review (any quantitative design or restricted). We also report number of included studies overall and those involving Aboriginal and/or Torres Strait Islander people.

3.6 Supplementary lists of trials and systematic reviews

As described under the Objectives of this Overview, we collated lists of systematic reviews and trials that help capture the broader review and trial literature potentially relevant to Aboriginal and/or Torres Strait Islander peoples. The purpose and limitations of these lists are as follows.

- Trials not yet included in systematic reviews. This list identifies gaps in systematic review activity where there is either no systematic review, or no current systematic review, in which these trials would be eligible. We used Epistemonikos to determine if the trials retrieved from the CENTRAL search had been included in systematic reviews. Citation searches would provide confirmation that these trials have not been included in reviews. Additionally, there may be reviews in progress that will include these trials. Checks of the PROSPERO database for registration of systematic reviews could confirm whether there are reviews in progress in which these trials would be eligible. These additional checks were outside the scope of this Overview.
- Systematic reviews with potential for updating. These reviews had a search date prior to 2011 but included one or more trials involving Aboriginal and/or Torres Strait Islander peoples. It is important to note that, with the exception of the search of the Cochrane Library, our search for reviews published prior to 2012 was limited to checks on Epistemonikos to determine if trials identified from CENTRAL had been included in a systematic review. Hence the list of non-Cochrane reviews may be incomplete.
- Systematic reviews that explicitly planned to include studies involving Aboriginal and/or Torres Strait Islander peoples, but did not identify any such studies. These reviews help capture gaps in primary research.
- Systematic reviews that examined *factors influencing implementation* of interventions (e.g. barriers and facilitators, acceptability). These reviews were screened on titles and

abstracts only, so some may not have included studies involving Aboriginal and/or Torres Strait Islander peoples.

- Systematic reviews that examined *prevalence or risk factors* among Aboriginal and/or Torres Strait Islander peoples. These reviews may help to identify the need for primary intervention research, but were out of the scope of this Overview, so were screened on titles and abstracts only.
- Systematic reviews that included studies involving indigenous peoples from New Zealand, Canada or the USA, but not Australia. This list provides additional information about the body of evidence potentially relevant to indigenous peoples. However, the search strategy for PubMed and Embase used in this Overview was specifically designed to identify reviews involving Aboriginal and/or Torres Strait Islander peoples, not those involving indigenous peoples from other countries.

4 Results

4.1 Results of the search

4.1.1 Systematic reviews identified by the search

A flow chart summarising search and screening results is provided in Figure 1.

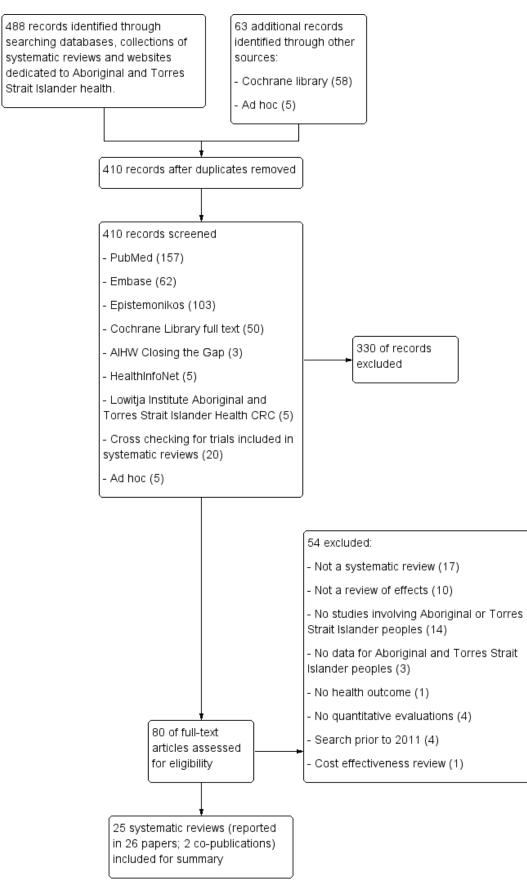
The searches of PubMed, Embase, ATSIhealth, Cochrane Library, PDQ Evidence, Epistemonikos, Healthinfonet and the AIHW Closing the Gap clearinghouse yielded 488 potential reports of systematic reviews published since 2012. Following deduplication, we screened the 355 unique records from these searches. We excluded 283 based on title and abstract review, and included 72 reports from this set for full-text screening.

The additional search of the Cochrane Library for reviews potentially involving Aboriginal and Torres Strait Islander peoples retrieved 58 Cochrane Reviews. Of these, eight were unique reviews confirmed as including one or more studies involving Aboriginal and/or Torres Strait Islander peoples (i.e. 50 were excluded). One of the eight was excluded because its search date was prior to 2011. The seven unique reviews were included for full-text screening. A further five reviews were identified from other sources (ad hoc), of which one was included for full-text review.

4.1.2 Trials identified by the CENTRAL search

The searches of CENTRAL for randomised trials (randomised, quasi-randomised, clusterrandomised, controlled non-randomised) identified 353 unique records. Checking for reports of trial results arising from identified protocols yielded a further four unique records. Of these, 107 records reported the design or findings of a randomised trial involving Aboriginal and/or Torres Strait Islander peoples. These 107 records included final trial reports (N=51), process evaluations (N=3), protocols (N=21), conference abstracts (N=22), and trial registry records (N=10). Nineteen of the 51 final trial reports had been included in one or more systematic reviews. The remaining 32 were included in the list of trials not yet included in a systematic review.

Figure 1. Flow of studies through the review



4.2 Characteristics of included systematic reviews

From the 80 full text reports, we included 25 reviews (reported in 26 papers, two of which were co-publications of the same review). The detailed summaries of these reviews and their included studies are provided in Appendix 1.

Table 1 provides a précis of the objective of each included review, outlines the scope the review (summarised in the text that follows), and reports the number of included studies.

4.2.1 Participants

Six reviews addressed questions specifically in relation to the health of Aboriginal and/or Torres Strait Islander peoples. Of these two had broader eligibility criteria, including studies that evaluated programs or services used in, or of particular relevance to healthcare for Aboriginal and/or Torres Strait Islander peoples.

Seven reviews addressed questions in relation to the health of indigenous peoples; two of which considered studies involving indigenous peoples from any nation, while four were restricted to Australia, New Zealand, Canada and the United States. The remaining 12 reviews considered studies involving any population; two of these were restricted to studies in Australia.

4.2.2 Interventions

Ten reviews considered interventions that could be broadly categorised as clinical (including prevention, treatment and screening), 12 considered public health interventions (sometimes in combination with individually focused prevention), and three reviews addressed questions related to health service delivery.

The most common areas of health covered were maternal and child health (9 reviews), smoking cessation (4 reviews), substance use prevention or treatment (3 reviews), mental health (2 reviews), diabetes (2 reviews), and parenting (2 reviews). Several reviews could be categorised in multiple clinical areas (e.g. diabetes during pregnancy, care for people with severe mental illness and substance misuse), hence some reviews are counted in more than one category.

4.2.3 Types of questions and studies included in reviews

Seventeen reviews focused on evaluating the effectiveness of interventions. Six reviews had additional objectives. These objectives included identifying and describing programs or services used to deliver care (4 reviews), identifying factors that may influence the acceptability and implementation of an intervention (e.g. barriers and facilitators) (1 review), and evaluating screening accuracy (1 review). Two reviews are best described as scoping reviews, covering a broad range of questions that included the effectiveness of interventions (Chamberlain 2013b, Olsen 2014).

The 25 reviews included 18 unique controlled trials involving Aboriginal and Torres Strait Islander peoples and more than 50 quantitative evaluations using non-comparative designs (number of unique studies not reported in all reviews). Five reviews included primary research using any study design (quantitative, qualitative, mixed method). Nine reviews included quantitative evaluations only, most without restriction on study design. The remaining 11 reviews were restricted to study designs commonly considered to provide higher level evidence for establishing the effects of an intervention. In eight of these reviews, eligibility was restricted to randomised trials (including cluster randomised, quasi randomised and controlled trials). One review also included cohort studies to examine harms. In the other two reviews before and after studies with concurrent controls (sometimes called pre-post designs) and interrupted times series studies were also eligible.

Table 1 Objectives and scope of reviews included in the Overview

Review ID	Objective (précis)		Scope of review		Number of studies (qu	antitative evaluations)
		Type of review	Population	Study design	All	Involving Aboriginal and/or Torres Strait Islander peoples
Barlow 2014	Group-based parenting programmes for parental psychosocial wellbeing	Effectiveness	Any	Randomised trials	48	1
Bowes 2014	Prevention and early intervention for improving outcomes in early childhood years	Effectiveness; factors influencing implementation	Aboriginal and/or Torres Strait Islander peoples (eligibilty any indigenous peoples)	Quantitative evaluations (unrestricted)	44 program evaluations (Randomised trials (4 studies), before-and- after studies with concurrent controls (2 studies), other studies used historic or no controls.	Most studies (number not reported)
Carson 2012a	Smoking cessation in indigenous populations	Effectiveness	Indigenous (Any country)	Randomised trials	4	1
Chamberlain 2013a	Psychosocial smoking cessation interventions during pregnancy	Effectiveness	Any	Randomised trials	86 (77 provided data for inclusion in meta- analysis for primary outcome)	1
Chamberlain 2013b	Early screening for diabetes in pregnancy	Effectiveness, current screening practice, prevelance (scoping review)	Indigenous (Australia, Canada, New Zealand, United States)	No restrictions	11 evaluations or descriptions of interventions (plus 134 other studies)	1 (plus 4 program descriptions, qualitative evaluations or guidance)
Chou 2013	Prevention of dental caries in children younger than 5 years of age	Effectiveness; screening accuracy	Any	Randomised trials; cohort studies (primarily harms)	18 (plus 2 on screening accuracy)	1
Clifford 2013	Suicide prevention interventions for indigenous people	Effectiveness, Program description	Indigenous (Australia, New Zealand, Canada, USA)	Quantitative evaluations (unrestricted)	9	3
Clifford 2015	Interventions to improve cultural competence in health care for indigenous peoples	Effectiveness; program description	Indigenous (Australia, New Zealand, Canada, USA)	Quantitative evaluations (unrestricted)	16	5
Day 2013	Psycho-social interventions for	Effectiveness	Aboriginal and/or Torres	Quantitative evaluations	12 program evaluations	12 programs (number

Review ID	Objective (précis)		Scope of review		Number of studies (qu	antitative evaluations)
		Type of review	Population	Study design	All	Involving Aboriginal and/or Torres Strait Islander peoples
	social and emotional wellbeing of Aboriginal and Torres Strait Islander peoples		Strait Islander peoples	(unrestricted)	(plus 3 with qualitative evaluations, 36 studies overall)	studies unclear)
Ejere 2015	Face washing promotion for the prevention of active trachoma in endemic communities	Effectiveness	Any	Randomised trials	2	1
Farley 2014	Antibiotics for bronchiolitis in children under two years of age	Effectiveness	Any	Randomised trials	7	1
Gao 2014	Macrolide therapy in adults and children with non-cystic fibrosis bronchiectasis	Effectiveness	Any	Randomised trials	9	1
Gould 2013	Culturally targeted anti-tobacco media messages for indigenous peoples	Effectiveness	Indigenous (Australia, New Zealand, Canada, USA)	No restrictions	14 (plus 6 qualitative studies)	3 (plus one qualitative study)
Guy 2012	Sexually transmissible infection programs delivered in remote Aboriginal communities	Effectiveness	Aboriginal and/or Torres Strait Islander peoples	Quantitative evaluations (restricted based on question)	4 program evaluations (12 publications)	4 programs
Harlow 2014	Suicide prevention programs for indigenous youth	Effectiveness	Indigenous (Australia, Canada, New Zealand, United States)	Quantitative evaluations (unrestricted)	6 program evaluations (plus 2 qualitative evaluations and 1 program description)	1 program (plus 1 program description)
Hunt 2013	Psychosocial interventions for people with both severe mental illness and substance misuse	Effectiveness	Any	Randomised trials	32	1
Jongen 2014	Aboriginal and Torres Strait Islander maternal and child health programs	Effectiveness; program description	Aboriginal and/or Torres Strait Islander peoples	No restrictions	7 program evaluations (10 studies; plus 2 qualitative evaluations and 11 descriptions of programs)	7 programs (10 studies)
Kristjansson 2015	Supplementary feeding interventions for improving the physical and psychosocial health	Effectiveness	Any	Randomised trials, before- and-after with control,	32	1

Review ID	Objective (précis)		Scope of review		Number of studies (qu	antitative evaluations)
		Type of review	Population	Study design	All	Involving Aboriginal and/or Torres Strait Islander peoples
	of disadvantaged children			interrupted time series		
Lee 2013	Interventions for prevention or treatment of substance use among young Indigenous Australians	Effectiveness	Aboriginal and/or Torres Strait Islander peoples	Quantitative evaluations (unrestricted)	8	8
MacLean 2012	Psychosocial therapeutic interventions for volatile substance use	Effectiveness	Any	Quantitative evaluations (unrestricted)	19	5
McCalman 2014a	Characteristics, implementation and effects of indigenous health promotion tools	Effectiveness; program description	Aboriginal and/or Torres Strait Islander peoples (eligibility wider if tool in use in Aboriginal healthcare)	No restrictions	5 (plus 6 qualitative evaluations)	4 (plus 1 qualitative)
Olsen 2014	National Hepatis B strategy: community response, prevention, diagnosis and screening (including prevalence and incidence), clinical management and other health care.	Effectiveness, program description, current practice (e.g. clinical audits), prevelence (scoping review)	Any (Australian)	No restrictions	1 evaluation (plus 43 reports on community response (1), prevention (12), diagnosis and screening (23), clinical management (14), other care (5))	1 evaluation (other 43 reports not checked for population)
Passey 2013	Smoking cessation interventions targeting pregnant Indigenous women	Effectiveness	Indigenous (Any country)	Quantitative evaluations (with control group)	2	1
Schofield 2014	Primary care workforce models for managing diabetes	Effectiveness	Any (Australian)	Quantitative evaluations (unrestricted)	11 (plus 3 reviews or policy papers)	3
van Zon 2012	Antibiotics for otitis media with effusion in children up to 18 years	Effectiveness	Any	Randomised trials	23	1

4.3 Excluded systematic reviews

Following full text review, we excluded 54 reports that did not meet the eligibility criteria for the Overview. Reasons for exclusion were as follows:

- Not a systematic review (17 papers, of which two were reviews at title or protocol stage)
- Not a review of the effects of an intervention (10 reviews; of which two examined factors influencing acceptability or implementation of interventions)
- None of the included studies involved Aboriginal or Torres Strait Islander peoples (14 reviews)
- Identified one study involving Aboriginal and non-Indigenous participants but did not report data separately for Aboriginal participants (3 reviews; each including one potentially relevant study). None of these reviews addressed questions specific to Aboriginal and/or Torres Strait Islander or other indigenous peoples. Two of the reviews included the same trial (Kaufman 2013; Renfrew 2012)
- Review did not aim to report a health or public health outcome (1 review)
- None of the included studies reported quantitative evaluations (4 reviews)
- Search date prior to 2011 (4 reviews)
- Review of cost-effectiveness studies (1 review)
- No reviews were excluded on the basis on the ROBIS assessment.

The list of reviews and reasons for exclusion are reported in the Characteristics of excluded reviews table (Appendix 2).

4.4 Risk of bias in included systematic review

The ROBIS assessment for each included review is reported in Appendix 4. Four of 25 reviews were rated at high risk of bias overall. In most cases this assessment was made because reviews did not consider or clearly reflect the quality of evidence supporting their conclusions. This assessment does not invalidate the findings of these reviews; rather it indicates that the findings need to be interpreted with greater consideration of the quality of the evidence supporting conclusions.

Ten reviews were assessed as having some concerns regarding the methods used to identify and select studies (Domain 2 of the ROBIS tool). All ten were rated as at unclear risk of bias for this domain. In most cases this was because the review did not report whether one or more authors applied eligibility criteria to select studies.

4.5 Supplementary lists of trials and systematic reviews

Lists of trials and (out of scope) systematic reviews that help capture the broader trial and review literature potentially relevant to the health of Aboriginal and Torres Strait Islander peoples are reported in Appendices as follows:

• Trials not yet included in systematic reviews (32 trials): This list includes published peerreviewed papers reporting results of randomised trials and non-randomised trials with concurrent controls. Trials were categorised broadly as: cardiovascular health and diabetes (2 trials), communicable disease (4 trials), ear health (6 trials), health promotion and well-being (2 trials), oral health (2 trials), physical activity and nutrition (10 trials), smoking cessation (4 trials), and substance use (2 trials). Appendix 5

- Systematic reviews with *potential for updating* (search date prior to 2011; included one or more trials involving Aboriginal and/or Torres Strait Islander peoples) (16 reviews): Appendix 6
- Systematic reviews that explicitly planned to include studies involving Aboriginal and/or Torres Strait Islander peoples, but did not identify any such studies (12 reviews): Appendix 7
- Systematic reviews that examined *factors influencing implementation* of interventions (e.g. barriers and facilitators, acceptability) (21 reviews): Appendix 8
- Systematic reviews that examined *prevalence or risk factors* among Aboriginal and/or Torres Strait Islander peoples (47 reviews): Appendix 9
- Systematic reviews that included studies involving indigenous peoples from New Zealand, Canada or the USA, but not Australia (7 reviews): Appendix 10

5 Discussion

5.1 Key findings

This Overview of systematic reviews identified 25 current reviews that included quantitative studies evaluating the effects of interventions on the health of Aboriginal and/or Torres Strait Islander peoples. These reviews varied in scope but could be broadly grouped into reviews that only focused on the health of Indigenous peoples (13 reviews) (including six reviews involving only Aboriginal and Torres Strait Islander peoples) and reviews that considered any population (12 reviews).

Among the 13 reviews that focused on the health of Indigenous peoples, only one restricted the inclusion of quantitative studies to randomised trials. In contrast eight of the 12 reviews that considered any population restricted inclusion to randomised trials only. This difference reflects a common trade-off in systematic reviews wherein decisions must be made about the value of including all available studies versus the potential loss of information arising from restricting study design, including the feasibility and acceptability of both the intervention and the conduct of a controlled trial. This decision impacts on relevance and influences how much confidence can be placed in the findings of the review; namely how certain we can be that the observed effects are due to the intervention rather than other changes over time or unaccounted for differences among groups. Irrespective of included study designs, it is critical that the findings of a review clearly reflect the quality of the underlying evidence. The ROBIS assessments indicated that this was the case in most but not all reviews.

Overviews of reviews provide information about gaps in systematic review coverage. These gaps arise when there is no review or where there is a review that is not up-to-date. We identified 32 trials that were yet to be included in a systematic review. These trials point to topics where new reviews or an update of an existing review may be warranted. One step toward this would be to assess the identified trials for eligibility for inclusion in the reviews that were excluded because their search date was prior to 2011 (Appendix 6; 16 reviews) and those that did not identify any quantitative evaluations of interventions involving Aboriginal and Torres Strait Islander peoples

(Appendix 7; 12 reviews). One included review (Carson 2012) identified three ongoing trials involving Aboriginal and Torres Strait Islander peoples that have now been published, which could be a prompt to update this review.

5.2 Scope of this Overview and resulting implications for future research

This Overview aimed to identify systematic reviews examining the effects of health-related interventions among Aboriginal and Torres Strait Islander peoples. Mapping these reviews to priority needs for health interventions among Aboriginal and Torres Strait Islander peoples was outside the scope of the Overview, but is a critical step in determining the utility of the identified reviews. We identified 47 reviews of epidemiological studies examining prevalence and risk factors, which may help to identify priority reviews of interventions (Appendix 9). Using a holistic concept of health and research to identify priority needs, such as those identified through extensive consultation (e.g. National Aboriginal and Torres Strait Islander Health Plan), through epidemiological studies, or qualitative research may provide essential information needed to assess both the utility of reviews and gaps in review activity. In evaluating the utility of existing research, consideration needs to be given to the acceptability and appropriateness of different study designs to Aboriginal and Torres Strait Islander peoples. In particular, an important consideration when interpreting the applicability of evidence is the extent to which participative, flexible research designs conducted with and by Aboriginal and Torres Strait Islander peoples were used.

5.3 Strengths and limitations

This Overview used a systematic and broad search to identify and provide a 'snapshot' of all current systematic reviews and controlled trials of the effects of interventions on the health of Aboriginal and Torres Strait Islander peoples. By searching for trials, and cross-checking whether identified trials had been included in a review, we lessened the chance that relevant reviews and trials would be overlooked. The search strategy provided a sensitive method for retrieving reviews focused on the health of Aboriginal and Torres Strait Islander peoples. However, it is complex to locate reviews that included studies involving Aboriginal and Torres Strait Islander peoples if the review considered other populations. Titles and abstracts of such reviews rarely reflect the specific populations among which studies are conducted. Our search for Cochrane reviews included the full text of the table of characteristics of included studies, minimising the chance that we missed relevant Cochrane reviews. But full text searching was not possible for other sources, so we may have missed eligible reviews published elsewhere.

6 Conclusion

This Overview of reviews identified and summarised the characteristics of current systematic reviews that included quantitative evaluations of the effects of interventions (including programs and services) on the health of Aboriginal and Torres Strait Islander peoples. Controlled trials yet to be included in a systematic review were also identified. In so doing, the Overview provides information about the type and volume of current review evidence available for informing policy and practice. The Overview also identifies gaps in systematic review activity, providing information to inform decisions about where new or updated reviews may be needed, as well as a list of epidemiological reviews, the findings of which may highlight the need for intervention research. However, active collaboration and a broad range of research designs is needed to develop conceptual models which illuminate health priorities and the subsequent 'gaps' in research, as well as 'gaps' between research and current practice and policy.

7 References

7.1 References to reviews included in the Overview (and included trials involving Aboriginal and Torres Strait Islander people)

Indented references are to trials (randomised, quasi-randomised, cluster-randomised, nonrandomised with concurrent control) included in the review that involved Aboriginal and Torres Strait Islander peoples. Studies using other quantitative designs (e.g. historic controls, no controls) are not listed.

Barlow 2014

Barlow J, Smailagic N, Huband N, Roloff V, Bennett C. Group-based parent training programmes for improving parental psychosocial health. Cochrane Database of Systematic Reviews. 2014(5):CD002020.

Turner KM, Richards M, Sanders MR. Randomised clinical trial of a group parent education programme for Australian Indigenous families. Journal of Paediatrics and Child Health. 2007;43(6):429-37.

Bowes 2014

Bowes J, Grace R. Review of early childhood parenting, education and health intervention programs for Indigenous children and families in Australia. Issues paper no. 8. Canberra: Closing the Gap Clearinghouse. Australian Institute of Health and Welfare: Australian Institute of Family Studies, 2014.

D'Espaignet ET, Measey ML, Carnegie MA, Mackerras D. Monitoring the 'Strong Women, Strong Babies, Strong Culture Program': the first eight years. Journal of Paediatrics and Child Health. 2003;39(9):668-72.

Morris PS, Gadil G, McCallum GB, Wilson CA, Smith-Vaughan HC, Torzillo P, et al. Single-dose azithromycin versus seven days of amoxycillin in the treatment of acute otitis media in Aboriginal children (AATAAC): a double blind, randomised controlled trial. The Medical Journal of Australia. 2010;192(1):24-9.

Panaretto KS, Lee HM, Mitchell MR, Larkins SL, Manessis V, Buettner PG, et al. Impact of a collaborative shared antenatal care program for urban Indigenous women: a prospective cohort study. The Medical Journal of Australia. 2005;182(10):514-9.

Roberts-Thomson KF, Slade GD, Bailie RS, Endean C, Simmons B, Leach AJ, et al. A comprehensive approach to health promotion for the reduction of dental caries in remote Indigenous Australian children: a clustered randomised controlled trial. International Dental Journal. 2010;60(3 Suppl 2):245-9.

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Valery PC, Masters IB, Taylor B, Laifoo Y, O'Rourke PK, Chang AB. An education intervention for childhood asthma by Aboriginal and Torres Strait Islander health workers: a randomised controlled trial. The Medical Journal of Australia. 2010;192(10):574-9.

Carson 2012a

Carson KV, Brinn MP, Peters M, Veale A, Esterman AJ, Smith BJ. Interventions for smoking cessation in Indigenous populations. Cochrane Database of Systematic Reviews. 2012(1):CD009046.

Ivers RG, Farrington M, Burns CB, Bailie RS, D'Abbs PH, Richmond RL, et al. A study of the use of free nicotine patches by Indigenous people. Australian and New Zealand Journal of Public Health. 2003;27(5):486-90.

Studies identified as ongoing in the review but subsequently published (reference to report of trial results cited here, but not yet included in the review):

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Marley JV, Atkinson D, Kitaura T, Nelson C, Gray D, Metcalf S, et al. The Be Our Ally Beat Smoking (BOABS) study, a randomised controlled trial of an intensive smoking cessation intervention in a remote aboriginal Australian health care setting. BMC Public Health. 2014;14:32.

Walker N, Johnston V, Glover M, Bullen C, Trenholme A, Chang A, et al. Effect of a family-centered, secondhand smoke intervention to reduce respiratory illness in indigenous infants in Australia and New Zealand: a randomized controlled trial. Nicotine & Tobacco Research. 2015;17(1):48-57.

Chamberlain 2013a

Chamberlain C, O'Mara-Eves A, Oliver S, Caird JR, Perlen SM, Eades SJ, et al. Psychosocial interventions for supporting women to stop smoking in pregnancy. Cochrane Database of Systematic Reviews. 2013(10):CD001055.

Eades SJ, Sanson-Fisher RW, Wenitong M, Panaretto K, D'Este C, Gilligan C, et al. An intensive smoking intervention for pregnant Aboriginal and Torres Strait Islander women: a randomised controlled trial. The Medical Journal of Australia. 2012;197(1):42-6.

Chamberlain 2013b

Chamberlain C, McNamara B, Williams ED, Yore D, Oldenburg B, Oats J, et al. Diabetes in pregnancy among indigenous women in Australia, Canada, New Zealand and the United States. Diabetes/Metabolism Research and Reviews. 2013;29(4):241-56.

Chou 2013

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Clifford 2015

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Day 2013

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Ejere 2015

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Gao 2014

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Gould 2013

Gould GS, McEwen A, Watters T, Clough AR, van der Zwan R. Should anti-tobacco media messages be culturally targeted for Indigenous populations? A systematic review and narrative synthesis. Tobacco Control. 2013;22(4):e7.

Guy 2012

Guy R, Ward JS, Smith KS, Su JY, Huang RL, Tangey A, et al. The impact of sexually transmissible infection programs in remote Aboriginal communities in Australia: a systematic review. Sexual Health. 2012;9(3):205-12.

Harlow 2014

Harlow AF, Bohanna I, Clough A. A systematic review of evaluated suicide prevention programs targeting Indigenous youth. Crisis. 2014;35(5):310-21.

Hunt 2013

Hunt GE, Siegfried N, Morley K, Sitharthan T, Cleary M. Psychosocial interventions for people with both severe mental illness and substance misuse. Cochrane Database of Systematic Reviews. 2013(10):CD001088.

Nagel T, Robinson G, Condon J, Trauer T. Approach to treatment of mental illness and substance dependence in remote Indigenous communities: results of a mixed methods study. Australian Journal of Rural Health. 2009;17(4):174-82.

Jongen 2014

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Schofield 2014

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8 Appendices

Appendix 1. Search strategies

Searches conducted 23 March 2015

PubMed

#	Search Statement	Results
#1	(((((Australia[mh] OR Australia*[tiab]) AND (Oceanic Ancestry Group[mh] OR Aborigin*[tiab] OR Indigenous[tw])) OR (Torres Strait* Islander*[tiab])) AND medline[sb]) OR ((((.au[ad] OR Australia*[ad] OR Australia*[tiab] OR Northern Territory[tiab] OR Northern Territory[ad] OR Tasmania[tiab] OR Tasmania[ad] OR New South Wales[tiab] OR New South Wales[ad] OR Victoria[tiab] OR Victoria[ad] OR Queensland[tiab] OR Queensland[ad]) AND (Aborigin*[tiab] OR Indigenous[tiab])) OR (Torres Strait* Islander*[tiab])) NOT medline[sb]))	7134
#2	Review[ptyp]	1,946,959
#3	#1 AND #2	497
#4	(systematic review [ti] OR meta-analysis [pt] OR meta-analysis [ti] OR systematic literature review [ti] OR (systematic review [tiab] AND review [pt]) OR consensus development conference [pt] OR practice guideline [pt] OR cochrane database syst rev [ta] OR acp journal club [ta] OR health technol assess [ta] OR evid rep technol assess summ [ta] OR drug class reviews [ti]) OR (clinical guideline [tw] AND management [tw]) OR ((evidence based[ti] OR evidence-based medicine [mh] OR best practice* [ti] OR evidence synthesis [tiab]) AND (review [pt] OR diseases category[mh] OR behavior and behavior mechanisms [mh] OR therapeutics [mh] OR evaluation studies[pt] OR validation studies[pt] OR guideline [pt] OR pmcbook)) OR ((systematic [tw] OR systematically [tw] OR critical [tiab] OR (study selection [tw]) OR (predetermined [tw] OR inclusion [tw] AND criteri* [tw]) OR exclusion criteri* [tw] OR main outcome measures [tw] OR standard of care [tw] OR standards of care [tw]) AND (survey [tiab] OR surveys [tiab] OR overview* [tw] OR review [tiab] OR reviews [tiab] OR search* [tw] OR handsearch [tw] OR analysis [ti] OR critique [tiab] OR appraisal [tw] OR (reduction [tw]AND (risk [mh] OR risk [tw]) AND (death OR recurrence))) AND (literature [tiab] OR publications [tiab] OR publication [tiab] OR bibliography [tiab] OR bibliographies [tiab] OR published [tiab] OR references [tw] OR citation [tw] OR citations [tw] OR database [tiab] OR internet [tiab] OR textbooks [tiab] OR references [tw] OR scales [tw] OR papers [tw] OR datasets [tw] OR trials [tiab] OR meta-analy* [tw] OR (clinical [tiab] AND studies [tiab]) OR treatment outcome [mh] OR treatment outcome [tw] OR pmcbook)) NOT (letter [pt] OR newspaper article [pt] OR comment [pt])	238,191
#5	#1 AND #4	176
#6	#3 OR #5	587
#7	"2012/01/01"[PDAT] : "2015/12/31"[PDAT]	160

Embase

(Ovid <1974 to 2015 March 20>)

#	Search Statement	Results
1	meta-analysis/ or systematic review/ or meta-analysis as topic/ or "meta analysis (topic)"/ or "systematic review (topic)"/ or exp technology assessment, biomedical/	171647
2	((systematic* adj3 (review* or overview*)) or (methodologic* adj3 (review* or overview*))).ti,ab.	88018
3	((quantitative adj3 (review* or overview* or synthes*)) or (research adj3 (integrati* or overview*))).ti,ab.	7090
4	((integrative adj3 (review* or overview*)) or (collaborative adj3 (review* or overview*)) or (pool* adj3 analy*)).ti,ab.	16750
5	(data synthes* or data extraction* or data abstraction*).ti,ab.	17105
6	(handsearch* or hand search*).ti,ab.	6608
7	(mantel haenszel or peto or der simonian or dersimonian or fixed effect* or latin square*).ti,ab.	17905
8	(met analy* or metanaly* or technology assessment* or HTA or HTAs or technology overview* or technology appraisal*).ti,ab.	7278
9	(meta regression* or metaregression*).ti,ab.	3899
10	(meta-analy* or metaanaly* or systematic review* or biomedical technology assessment* or bio-medical technology assessment*).mp,hw.	216761
11	(medline or cochrane or pubmed or medlars or embase or cinahl).ti,ab,hw.	130997
12	(cochrane or (health adj2 technology assessment) or evidence report).jw.	15364
13	(comparative adj3 (efficacy or effectiveness)).ti,ab.	10134

#	Search Statement	Results
14	(outcomes research or relative effectiveness).ti,ab.	7848
15	((indirect or indirect treatment or mixed-treatment) adj comparison*).ti,ab.	1880
16	review.pt.	2023952
17	or/1-16	2234179
18	Australia/	116805
19	(australia* or "new south wales" or victoria or queensland or "northern territory" or tasmania).ti,ab.	129403
20	(aborigin* or torres or indigenous).ti,ab.	31100
21	(18 or 19) and 20	7009
22	17 and 21	626
23	limit 22 to yr="2012 -Current"	143
24	limit 23 to embase	103

ATSIhealth: Aboriginal and Torres Strait Islander health bibliography

#1	("systematic review") or meta-analysis limited to 2012-2015	23

Cochrane Library

#1	Indigenous or aborigin* or torres:ti,ab,kw	428
#2	australia* or "northern territory" or tasmania or "new south wales" or victoria or queensland:ti,ab,kw	8614
#3	#1 AND #2	148 ¹
-		

¹ 6 records from CDSR and DARE for period 2012-2015

PDQ Evidence

http://www.pdq-evidence.org/en/

#1 (indigenous OR aborigin* OR torres) limited to 2012-2015 14
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Epistemonikos

http://www.epistemonikos.org

#1	(indigenous OR aborigin* OR torres) limited to 2012-2015	131

Healthinfonet

http://www.healthinfonet.ecu.edu.au/

#1	systematic review (title) limited to 2012-2015	42]
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AIHW Closing the Gap Clearinghouse

http://www.aihw.gov.au/closingthegap/

#1	"systematic review" limited to 2012-2015	8
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Cochrane Central Register of Controlled Trials Register (Issue 3, 2015)

#1	Indigenous or aborigin* or torres:ti,ab,kw	373
#2	australia* or "northern territory" or tasmania or "new south wales" or victoria or queensland:ti,ab,kw	21037
#3	#1 AND #2	134
#4	#1 NOT #3	239

Appendix 2. Characteristics of included reviews

Barlow 2014

Objective: To review the effects of group-based parenting programmes on parental psychosocial wellbeing

	Number of studies	Number of participants
All quantitative evaluations	48	4837
Those involving Aboriginal and Torres Strait Islander peoples	1	51

	What the review looked for	What the review found
Study design(s)	Randomised trials	Randomised trials (48 trials)
		Studies involving Aboriginal Australians: Randomised trial (1 study)
Participants	Adults with parental responsibility for day-to-day care of children with or without behavioural problems (including mothers, fathers, grandparents, foster parents, adoptive parents or	Parents with day-to-day parenting responsibility: both parents, mothers only, either parent, others (grandparents, foster parents, step parents, relatives)
	guardians) Co-morbidities: Programs that targeted parents with a diagnosed psychiatric disorder were	Socio-demographic characteristics: Low socio- economic status and disadvantage reported for participants in a small number of studies.
	excluded. Age: Programs that targeted teenagers who were parents or pregnant were excluded	Studies involving Aboriginal Australians (1 study): Mostly mothers (45/51 participants) of children aged 1 to 13 years. Families were recruited through community health centres and training was delivered in the community.
Countries	Any country	Australia (10 studies), USA (21 studies), Canada (7 studies), UK (3 studies). One study in: China, Germany, Japan, the Netherlands, New Zealand.
Intervention(s)	Parenting programmes meeting the following criteria:	Group-based parent training programmes categorised as
	- group-based format;	(1) Behavioural (22 studies)
	- standardised or manualised programme;	(2) Cognitive-behavioural (19 studies)
	 any theoretical framework (including behavioural, cognitive and cognitive-behavioural); 	(3) Multimodal or other (8 studies)
	- developed largely with the intention of helping	Setting in which intervention delivered: community settings, outpatient clinics, primary care.
	parents to manage children's behaviour and improve family functioning and relationships [p5]	Intervention intensity: 8 to 14 sessions (36 studies), 1 to 6 sessions (10 studies), 16 weeks (2 studies)
		Studies involving Aboriginal Australians (1 study): Group 'Triple P' parent programme, 8 weeks
Comparator(s)	Waiting-list, no treatment, treatment as usual or a placebo	Waiting-list, no treatment, treatment as usual
Outcomes	Primary: Parental psychosocial health (depressive symptoms, anxiety, stress, self-esteem, anger, aggression, guilt,	Primary: Parental psychosocial health: depression anxiety, stress, anger, guilt (measured with standardised measures)
	Measured by: standardised measures (e.g. Beck Depression Inventory, Parenting Stress Index)	Follow up time(s): immediately post-intervention (up to 1 month), short-term (2-6 months), long-
	Follow up time(s): not specified	term (more than 6 months)
	Exclusions: studies that only reported child outcomes	Secondary: Confidence, satisfaction with partner relationship

What the review looked for	What the review found
Secondary: Confidence, partner satisfaction, adverse effects	
Consideration of effects on equity for Aboriginal and Torres Strait Islander peoples	Minimal or no consideration of equity
Ongoing studies involving Aboriginal and Torres Strait Islander peoples	None identified

Bowes 2014

Objective: To review prevention and early intervention research focused on improving outcomes for Australian Indigenous children in the early childhood years

	Number of studies	Number of participants
All quantitative evaluations	44 program evaluations (multiple studies; some overlap where programs cover multiple types of programs)	Not reported (due to nature of synthesis and evaluations)
Those involving Aboriginal and Torres Strait Islander peoples	Most studies (number not reported)	Not reported

	What the review looked for	What the review found
Study design(s)	Any design (quantitative and qualitative)	Randomised trials (4 studies), before-and-after studies with concurrent controls (2 studies; 10 unconfirmed - some appear to be historic or no control), other studies used historic or no controls. All or most studies involved Aboriginal and Torres Strait Islander peoples
Participants	Children, their parents and families, health and other professionals Age: Early childhood years (conception to school entry) Socio-demographic factors: Indigenous	Children, their parents and families, health and other professionals involved in delivering care and education Age: Early childhood years (conception to school entry) Socio-demographic factors: Indigenous, with a strong focus on Indigenous people in Australia
Countries	Australia (strong focus), USA, Canada, New Zealand	Not reported per program.
Intervention(s)	 Programs targeted at the early childhood years focused on: (1) Parenting, (2) Early childhood education, (3) Health (4) Combinations of the above. Programs could be mainstream or indigenous-specific in their delivery, but outcomes for indigenous children, families or communities had to be reported. 	 Programs targeted at the early childhood years focused on: (1) Parenting: mainstream parenting programs for disadvantaged families, indigenous-specific parenting programs, and home visiting programs (13 programs) (2) Early childhood education: 'Mainstream intervention programs for disadvantaged families', 'indigenous-specific programs in early childhood education', 'Programs targeting specific aspects of learning', and 'Specific formats for early childhood education programs' (10 programs) (3) Health: 'Interventions targeting particular disorders/diagnoses'; 'Community-embedded

	What the review looked for	What the review found
		Maternal and Infant Health programs'; and 'Broad health interventions including the social determinants of health' (21 programs)
		Some programs covered multiple areas, so are counted more than once.
Comparator(s)	Any comparator	In studies with comparator group, usual care/practice or alternative strategies were common comparators. For studies without control groups, the comparison is typically with care/practice in period prior to introduction of new program.
Outcomes	Primary: Not specified	Primary: Not specified
	Secondary: Outcomes for Australian Indigenous children in the early childhood years and their parents	Secondary: Program specific child and family outcomes including benefits and harms; client satisfaction with program, program outputs (such as number of visits to a service)
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Yes - explicit consideration using other 'equity lens' (e.g. framework specific to review topic)
Ongoing studies peoples	involving Aboriginal and Torres Strait Islander	Not reported

Carson 2012a

Objective: To review the effects of smoking cessation interventions in indigenous populations.

	Number of studies	Number of participants
All quantitative evaluations	4	1201
Those involving Aboriginal and Torres Strait Islander peoples	1	111

	What the review looked for	What the review found
Study design(s)	Randomised trials; quasi-randomised trials	Randomised trials (2 studies); controlled clinical trials (2 studies)
		Studies involving Aboriginal Australians: Randomised trial (1 study)
Participants	Active smokers	Health condition(s): Active smokers
	Socio-demographic characteristics: Indigenous	Age: 30 to 50 years in most studies.
	people from any country. No restrictions on age, sex, or co-morbidities	Sex: Women and Men (% not reported across studies)
		Socio-demographic characteristics: Aboriginal Australians (1 trial), Māori people in New Zealand (trials), American Indians (1 trial). All trials involvec urban populations. Data on education, employment status and income were reported when available from trial reports.
		Studies involving Aboriginal Australians (1 study): Generally healthy active smokers. Most were moderate/heavy smokers (>10 per day). Urban and remote communities.

	What the review looked for	What the review found
Countries	Any country	New Zealand (2 studies), Australia (1 study) and United States (1 study).
Intervention(s)	Smoking cessation interventions categorised as:	Smoking cessation interventions:
	 Pharmacotherapies (e.g. nicotine replacement). Cognitive and behavioural therapies, (e.g. counselling, support groups, self-help, motivational lectures). Alternative therapies (e.g. acupuncture, hyperstherapy). 	(1) Pharmacotherapy (2 studies: one of bupropion plus individually tailored motivational telephone calls over 7 weeks; the second of nicotine patches plus a brief intervention involving advice on quitting, counselling on cessation and pamphlet over 10 weeks).
	hypnotherapy, aversion therapy). (4) Public policy (e.g. legislative interventions, media campaigns, community interventions). (5) Combination therapy (any combination of 1 to 4).	(2) Cognitive and behavioural therapies (2 studies: 1 involved counselling on smoking cessation (duration not reported); the second a mobile phone text messaging-based smoking cessation service delivered over 6 months).
		Setting: Interventions were delivered remotely by mobile phone (1 study), at community health clinics (2 studies), or at a research study centre (1 study). Most studies appeared to be in urban locations, but reporting of this information in the review was incomplete.
		Studies involving Aboriginal Australians (1 study): Pharmacotherapy (nicotine replacement patches) plus a brief intervention (advice on quitting, counselling on cessation, shown a flip-chart, pamphlet).
Comparator(s)	Usual practice (e.g. low intensity brief advice on quitting), no intervention, placebo, co- interventions (e.g. alcohol counselling)	Placebo pharmacotherapy plus individually tailored motivational telephone calls; Brief intervention involving advice on quitting, counselling on cessation and pamphlet; No smoking related information,
Outcomes	Primary: Smoking cessation	Primary: Smoking cessation (4 studies)
	Measured by: Continuous abstinence and/or relevant 'point prevalence', with or without biochemical validation Follow up time(s): 6 months or longer (longest follow-up time selected when multiple were	Secondary: Adverse events (2 studies), mortality (1 study), costs (1 study), change in attitudes (1 study). Quality of life, pulmonary function, exercise tolerance, knowledge (0 studies)
	reported) Secondary: Adverse effects; mortality; costs of interventions; quality of life; pulmonary function; attitudes (e.g. readiness to quit); knowledge (e.g. health effects of tobacco); exercise tolerance (e.g. six-minute walking distance)	
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Partial - considered equity but assessment not comprehensive (e.g. no a priori framework, reporting limited to data in included studies)
		The authors discuss the need to evaluate whether programs and strategies shown to be effective in other contexts are likely to be successful for Indigenous people.
Ongoing studies i peoples	nvolving Aboriginal and Torres Strait Islander	3 studies ongoing at time of review, all 3 have since been published:
		Atkinson 2008 (ACTRN12608000604303); Eades 2009 (ACTRN12609000929202); Johnston 2010a

What the review looked for	What the review found
	(ACTRN12609000937213)

Chamberlain 2013a

Objective: To review the effects of psychosocial smoking cessation interventions during pregnancy on smoking behaviour and perinatal health outcomes.

	Number of studies	Number of participants
All quantitative evaluations	86 (77 provided data for inclusion in meta- analysis for primary outcome)	29,000 (from 77 trials in primary analysis)
Those involving Aboriginal and Torres Strait Islander peoples	1	263

	What the review looked for	What the review found
Study design(s)	Randomised trials, cluster randomised trials, randomised cross-over trials	Randomised trials, cluster randomised trials, quasi- randomised trials (86 of which 77 provided data for inclusion in meta-analysis for primary outcome) Studies involving Aboriginal Australians: Randomised trial (1 study)
Participants	Women who are currently smoking or have recently quit smoking and are either pregnant or seeking a pre-pregnancy consultation. Socio-demographic characteristics: No restrictions.	Generally healthy pregnant women, most recruited at first antenatal visit during the second trimester of pregnancy. Included women who had 'spontaneously quit' smoking when they became pregnant (1740 women) and current smokers (remainder). [p22] Age: Mostly 16 years or over Socio-demographic characteristics: Low socio- economic status (47 trials). Women belonging to ethnic minority populations (7 trials). Trials in Indigenous communities: Australia (1 trial), Alaska, US (1 trial), New Zealand (>40% of participants were Māori women) (1 trial)
		Studies involving Aboriginal women (1 study): Women (at or before 20 weeks gestation); current smokers or recent quitters. Excluded pregnancy complicated by a mental illness or receiving treatment for chemical dependencies. Socio- demographic characteristics: Low SES and minority ethnic group.
Countries	Any country	Almost all trials were in high income countries: USA (57), Canada (1), the UK (13), Norway (3), Sweden (1), Holland (1), Spain (1), Australia (5), and New Zealand (2). Two were in middle income countries: Argentina, Brazil, Cuba, Mexico (1), Poland (1).
Intervention(s)	 Psychosocial interventions for supporting smoking cessation in pregnancy categorised as: (1) Counselling (e.g. motivational interviewing, cognitive behaviour therapy, relaxation, problem solving facilitation) (2) Health education (e.g. self-help manuals or automated text messaging, without any personal interaction). (3) Feedback about the fetal health status or measurement of by-products of tobacco smoking (e.g. ultrasound monitoring, carbon monoxide measurements). 	 Smoking cessation interventions categorised as: (1) Counselling (48 trials), (2) Health education (7 trials), (3) Feedback (7 trials), (4) Incentives (4 trials), (5) Social support (10 trials) Provider and intensity: Interventions "differed substantially in their intensity, their duration, and the people involved in their implementation." [p22] Setting: mainly public hospitals or community antenatal clinics.

	What the review looked for	What the review found
	 (4) Incentives (e.g. financial incentive contingent on their smoking cessation). (5) Social support from peer and/or partner (e.g. support from a self-nominated peer, 'lay' peers trained by project staff) 	Studies involving Aboriginal women (1 study): Counselling (tailored): GP advice to quit smoking 'cold turkey' and return for two follow up visits. First follow-up (day 3-5) partner or support person invited to attend visit with Aboriginal health worker. Second follow-up (day 7-10) offered NRT if still smoking and no contraindications. Urban.
Comparator(s)	Usual care, no intervention, less intensive interventions, alternative interventions	Usual care (information about the risk of smoking and advice to quit) (44 trials); alternative intervention of lesser intensity (31 trials); alternative intervention of equal intensity (2 trials)
Outcomes	Primary: Smoking abstinence (point prevalence abstinence) Measured by: self-report, biochemically validated or both	Primary: Smoking abstinence (77 trials contributed data to meta-analysis; 19 of which reported on differential effects among women of different ethnicity, socio-economic status and other factors)
	Follow up time(s): late pregnancy Secondary: Continued smoking abstinence in late pregnancy after spontaneous quitting in early pregnancy (relapse prevention); smoking abstinence postpartum (0-5 months, 6-11 months, 12-17 months)	Secondary: Continued smoking abstinence in late pregnancy after spontaneous quitting in early pregnancy (14 trials); smoking abstinence postpartum (32 trials)
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Yes - explicit consideration using PROGRESS-plus framework
Ongoing studies i peoples	nvolving Aboriginal and Torres Strait Islander	None identified

Chamberlain 2013b

Objective: To review evidence for early screening for gestational diabetes mellitus (including effectiveness of screening, treatment and follow-up systems) among indigenous women in Australia, Canada, New Zealand and the United States.

	Number of studies	Number of participants
All quantitative evaluations	11 evaluations or descriptions of interventions (plus 134 other studies)	7073 (in the 11 papers that described or evaluated interventions)
Those involving Aboriginal and Torres Strait Islander peoples	1 (plus 4 program descriptions, qualitative evaluations, or guidance)	Not reported

	What the review looked for	What the review found
Study design(s)	Any design	Randomised trial (1 study); before-and-after study without control (1 study); unclear (9 studies). Some of the 9 studies described but did not evaluate interventions.
		Studies involving Aboriginal Australians: Before- and-after study without control (1 study)
Participants	Health condition: Diabetes in pregnancy, including gestational diabetes mellitus, pre-existing type 2	Health condition: Women with or at risk of diabetes in pregnancy (pre-existing and gestational)
	diabetes mellitus, and pre-existing type 1 diabetes mellitus. Severity of condition: Any, including women at risk	Socio-demographic characteristics: Indigenous women
		Studies involving Aboriginal Australians (1 study):

	What the review looked for	What the review found
	of diabetes in pregnancy. Socio-demographic characteristics: Indigenous women.	26 women with diabetes (gestational or Type 2), of whom 7 were pregnant.
Countries	Australia, Canada, New Zealand, United States.	Australia (2 studies), Canada (6 studies), New Zealand (1 study), United States (2 studies)
Intervention(s)	Screening for gestational diabetes, treatment pathways after diagnosis, systems for follow-up after pregnancy. Studies on the acceptability of screening were also considered.	Screening for gestational diabetes (3 studies), treatment pathways after diagnosis (6 studies), systems for follow-up after pregnancy (5 studies). Acceptability of screening for gestational diabetes among indigenous women (0 studies) Studies involving Aboriginal Australians (1 study): Integrated primary-secondary care diabetes clinic.
Comparator(s)	Any comparator	No comparative studies identified.
Outcomes	Primary: Not specified Secondary: Any outcome. Outcomes identified in the background as being of importance include: early detections of diabetes mellitus, reduction of diabetes mellitus related health risks in pregnancy and birth (e.g. reduction in caesarean section, preeclampsia, congenital abnormalities, macrosomia), improved health outcomes arising from opportunity to provide health interventions, harms (increased psychological stress, impacts of selective application of screening).	Primary: Not specified Secondary: Studies involving Aboriginal Australians: primary - metabolic control (HbA1c) (1 study)
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Yes - explicit consideration using other 'equity lens' (e.g. framework specific to review topic)
Ongoing studies i peoples	nvolving Aboriginal and Torres Strait Islander	Not reported

Chou 2013

Objective: To review of the effects of interventions for prevention of dental caries in children younger than 5 years of age

	Number of studies	Number of participants
All quantitative evaluations	18 (plus 2 on screening accuracy)	> 18,000 (1 large cohort of 14,000)
Those involving Aboriginal and Torres Strait Islander peoples	1	666

	What the review looked for	What the review found
Study design(s)	Randomised trials; cluster randomised trials; controlled clinical trials; cohort studies.	Randomised trials (10 studies, at least one cluster- randomised); controlled clinical trials (2 studies); cohort studies (6 studies).
		Studies involving Aboriginal Australians: Cluster randomised trial (1 study)
Participants	Health condition(s): Prevention of caries Age: Children less than 5 years old	Health condition(s): Prevention of caries Age: Children less than 5 years old Socio-demographic characteristics: Studies in

	What the review looked for	What the review found
	Socio-demographic characteristics: No restrictions	Indigenous communities: rural Canada (1 study), Australia (1 study). Other studies in urban areas. Low socioeconomic or underserved communities (4 studies)
		Studies involving Aboriginal Australians (1 study): Children around 3 years of age in remote Aboriginal communities.
Countries	Any country	Canada, Australia, United States, Saudi Arabia, Finland, Sweden, Japan (number per country not reported)
Intervention(s)	Interventions for preventing dental caries, categorised as:	Types of intervention: Interventions for preventing dental caries, categorised as:
	(1) Oral health screening (including risk assessment) by the primary care clinician	(1) Oral health screening by the primary care clinician (0 studies)
	 (2) Parental or caregiver/guardian oral health education by the primary care clinician (3) Referral by a primary care clinician to a dentist (4) Preventive treatment (dietary fluoride supplementation, topical fluoride application, or 	(2) Parental or caregiver/guardian oral health education as part of multifactorial interventions (e.g. with medical record reminders, clinician training, provision of toothbrushing materials) (2 trials)
	xylitol)	 (3) Referral by a primary care clinician to a dentist (1 study) (4) Preventive treatment: dietary fluoride supplementation (0 studies), topical fluoride application (5 studies), xylitol (5 studies)
		Studies involving Aboriginal Australians (1 study): Topical fluoride application. Three groups, each with different treatment regimens (number, frequency and duration of applications).
Comparator(s)	Any comparator	No intervention, intervention of different intensity or different treatment regimen, placebo wipes
Outcomes	Primary: Not specified	Primary: Not specified
	Secondary: Outcomes included: decreased incidence of dental caries, associated complications and harms (including dental fluorosis)	Secondary: Mean caries, composite caries outcome (presence of 1 or more decayed (noncavitated or cavitated), missing (due to caries), or filled tooth surfaces),
	Measured by: oral screening	Measured by: oral screening
	Follow up time(s): any follow up	Follow up time(s): varied, 1 to 6 years
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Partial - considered equity, but not explicitly in relation to Aboriginal and Torres Strait Islander populations
Ongoing studies i peoples	nvolving Aboriginal and Torres Strait Islander	None identified

Clifford 2013

Objective: To review the effects of suicide prevention interventions for Indigenous people of Australia, New Zealand, Canada or the USA

	Number of studies	Number of participants
All quantitative evaluations	9	41,150 (includes 40,000 participants from one large community-wide study including

non-indigenous people)

848

Those involving Aboriginal and Torres Strait Islander peoples

3

	What the review looked for	What the review found
Study design(s)	Quantitative evaluations (any design)	Before-and-after study with concurrent control (1 study), interrupted time series study with control (1 study), interrupted time series study without control (1 study), before-and-after studies without control (6 studies)
		Studies involving Aboriginal Australians: Before- and-after studies without control (3 studies)
Participants	Health condition: Suicide prevention for at risk and other people	Suicide prevention for at risk and other Indigenous people
	Socio-demographic characteristics: Indigenous people.	Age (reported in 6 of 9 studies): 10 to 55 years; 4 studies targeted young people
	No restrictions on co-morbidities, age, sex	Sex (reported in 5 of 9 studies): 9 to 42% of participants were men
		Socio-demographic characteristics: Indigenous people. Rural (4 studies), remote (2 studies), rural and remote (1 study) regional (1 study), unspecified (1 study)
		Studies involving Aboriginal Australians: Youth aged 15-25 years (1 study), adults aged 20-55 years (2 studies). Remote (1 study), rural and remote (1 study), regional (1 study). About 10% of participants were men (reported in 2 of 3 studies).
Countries	Australia, New Zealand, Canada, USA	Australia (3 studies), Canada (1 study), USA (5 studies)
Intervention(s)	Programs, services or policies for suicide prevention, early intervention or postvention for indigenous people	 Suicide prevention interventions categorised as: (1) Community prevention: alcohol restrictions (1 study, Native Alaskan communities), structured empowerment program (1 study), multi-faceted strategies ('The Adolescent Suicide Prevention Project' and 'The Elluam Tungiinun' prevention program) (2) Gatekeeper training: teaching people within the community how to identify and support individuals at high risk of suicide (3 studies). (3) Education: integration of culturally tailored life skills training (e.g. communication and problem solving) into the high school curriculum (1 study,
		Native American teenagers); multi-media education session (1 study) Studies involving Aboriginal Australians: (1) Community prevention: structured empowerment program (1 study); (2) Gatekeeper training (2 studies). Setting remote (1 study), rural and remote (1 study), regional (1 study)
Comparator(s)	Any comparator	Comparators not reported in the review (2 studies used concurrent controls)
Outcomes	Primary: Not specified	Primary: Not specified

What the review looked for	What the review found
Secondary: Any outcome related to suicide prevention	Secondary: Health outcomes (measured in 3 studies): suicide vulnerability, suicide attempts, death rates, hopelessness, depression. Follow-up times: 8 months, 1-13 years.
	Intermediate outcomes (measured in 6 studies): knowledge, confidence, intentions, individual or community empowerment, skills, youth or adult protective behaviours
Consideration of effects on equity for Aboriginal and Torres Strait Islander peoples	Yes - explicit consideration using other 'equity lens' (e.g. framework specific to review topic)
Ongoing studies involving Aboriginal and Torres Strait Islander peoples	Not reported

Clifford 2015

Objective: To review the effects of interventions to improve cultural competence in health care for Indigenous peoples of Australia, New Zealand, Canada or the USA

	Number of studies	Number of participants
All quantitative evaluations	16	832 health professionals (335 students), 578 healthcare services (number of professional within services not reported in review), 324 patients
Those involving Aboriginal and Torres Strait Islander peoples	5	429 health professionals (224 students), 98 health services,137 patients

	What the review looked for	What the review found
Study design(s)	Quantitative evaluations (any design)	Randomised trial (2 studies); before-and-after study with concurrent control (2 studies); before- and-after study with historical control (2 studies); before-and-after study without control (4 studies); interrupted time series study without control (1 study); historical control cohort study (2 studies); post intervention survey with repeated measures (1 study); post intervention survey (2 study)
		Studies involving Aboriginal Australians: interrupted time series studies without control (1 study); before-and-after study with historical control (2 studies); historical control cohort study (1 studies); post intervention survey with repeated measures (1 study)
Participants	Health professionals working with Indigenous people; health-care programs or services delivered for Indigenous peoples	Health professionals working with Indigenous people, health-care programs or services delivered for Indigenous peoples. Professionals included Indigenous and non-Indigenous health professionals and students (undergraduate and postgraduate).
		Studies involving Aboriginal Australians: Health professionals in an area wide health service (2 studies), undergraduate medical students (1 study), Aboriginal health workers (1 study), community pharmacists (1 study)

	What the review looked for	What the review found
Countries	Australia, New Zealand, Canada, USA	Australia (5 studies), USA (11 studies)
Intervention(s)	Interventions designed to improve cultural competence in health care for indigenous peoples	Cultural competence interventions categorised as (1) Education and/or training of health professionals or health students (didactic, interactive and experiential methods) (8 studies) (2) Culturally specific health programs or resources delivered to indigenous people (5 studies) (3) Indigenous health workforce (3 studies) Setting in which intervention delivered: urban health service (2 studies), rural outreach (1 study), remote community health centres/dental clinics (2 studies), state-wide health service (1 study), university (3 studies), not specified (7 studies) Studies involving Aboriginal Australians: (1)
		Education and/or training of health professionals or health students (4 studies); (2) Indigenous health workforce (1 study). Setting: urban health service (1 study), rural outreach (1 study), remote community health centres (1 study), state-wide health service (1 study), university (1 study)
Comparator(s)	Any comparator	4 studies used concurrent controls (1 in Australia). The comparators were not reported in the review.
Outcomes	Primary: Not specified Secondary: Not specified: "reported outcomes related to people participating in the intervention" [p2]	Primary: Not specified Secondary: Studies involving Aboriginal Australians only. Health professional outcomes: knowledge (e.g. understanding health issues), attitudes, readiness and commitment to improve health of Aboriginal people (e.g. taking an advocacy role), confidence with Aboriginal health issues, healthcare process outcomes (e.g. delivery of guideline-adherent diabetes care, smoking cessation advice). Most measured by self-report questionnaire. Patient outcomes: diabetes health outcomes.
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Yes - explicit consideration using other 'equity lens' (e.g. framework specific to review topic)
Ongoing studies i peoples	nvolving Aboriginal and Torres Strait Islander	Not reported

Day 2013

Objective: To review the effects of psycho-social interventions for improving social and emotional wellbeing of Aboriginal and Torres Strait Islander people

	Number of studies	Number of participants
All quantitative evaluations	12 program evaluations (plus 3 with qualitative evaluations, 36 studies overall)	Not reported
Those involving Aboriginal and Torres Strait Islander peoples	12 programs (no. studies unclear)	All participants were Aboriginal and Torres Strait Islander people

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	What the review looked for	What the review found
Study design(s)	Any design (synthesis of effects limited to 'high quality' evaluations based on a priori criteria)	Quantitative evaluations: design not reported for individual studies/programs.
		All or most studies involved Aboriginal and Torres Strait Islander peoples
Participants	Individuals and communities receiving or providing support for emotional and social wellbeing. Socio-demographic characteristics: Aboriginal and Torres Strait Islander people	Individuals and communities receiving or providing support for emotional and social wellbeing. Participants included (1) community members supporting those with mental health problems, (2) people and communities affected by past practices of forced removal of children, and (3) women preparing for pregnancy and childbirth. Socio-demographic characteristics: Aboriginal and Torres Strait Islander people, including remote communities.
Countries	Australia	Australia
Intervention(s)	Psycho-social interventions implemented to improve social and emotional wellbeing of Aboriginal and Torres Strait Islander individuals and communities	 Psycho-social interventions for social and emotional wellbeing categorised as: (1) Early intervention: Mental health first aid training to recognise mental illness and risk factors, develop action plans (mainstream international program with culturally tailored versions for Aboriginal and Torres Strait Islander adults and youth). 12 hours of training with ongoing contact with trainer. (multiple studies; 2 trials and other evaluations) (2) Indigenous mental health programs (Link-Up Program; Bringing them home): Assistance and counselling for people, families and communities affected by past removal policies. Training and professional support for staff and mental health workers delivering programs. (4 linked programs, multiple studies) (3) Community-based support for preparing for pregnancy and childbirth: delivered by Aboriginal women in remote communities (multiple evaluations)
Comparator(s)	Any comparator	Not reported
Outcomes	Primary: Not specified Secondary: Social and emotional wellbeing (any measure, any follow-up time)	Primary: Not specified Secondary: Program-specific measures of social and emotional wellbeing (e.g. recognition of mental health disorders, confidence in providing help to people with mental health disorders, birth weight, client satisfaction with services)
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Yes - explicit consideration using other 'equity lens' (e.g. framework specific to review topic)
Ongoing studies i peoples	nvolving Aboriginal and Torres Strait Islander	Not reported

Ejere 2015

Objective: To review the effects of face washing promotion for the prevention of active trachoma in endemic

communities		
	Number of studies	Number of participants
All quantitative evaluations	2	2560
Those involving Aboriginal and Torres Strait Islander peoples	1	1143

	What the review looked for	What the review found
Study design(s)	Randomised trials; quasi-randomised trials	Cluster randomised trials (2 studies) Studies involving Aboriginal Australians: Cluster randomised trial (1 study)
Participants	Health condition: People with or at risk of active trachoma Socio-demographic characteristics: Areas in which trachoma is endemic	Health condition(s): People with or at risk of active trachoma Age: Mostly under 14 years Socio-demographic characteristics: Areas endemic to trachoma (2 studies); 6 rural villages in Tanzania (1 study), 36 remote Aboriginal communities in Australia Studies involving Aboriginal Australians (1 study): children 5 to 14 years
Countries	Any country where trachoma is endemic	Australia (1 study), Tanzania (1 study)
Intervention(s)	Face washing promotion delivered by any means appropriate to the local setting (e.g. health education leaflets; community leaders; role-play; school teachers; women groups). Co-interventions involving mass antibiotic treatment (any dose or frequency of tetracycline ointment or capsules, azithromycin, or erythromycin) were included if the control group also received treatment.	 Face washing promotion alone (1 study), with tetracycline drops (2nd arm of same study), or with tetracycline ointment (1 study). Face washing promotion involved: (1) community based promotion (1 study) involving neighbourhood meetings, reinforcement activities at school plays, seminars with traditional healers, meetings with village groups. (2) eye washing by school teachers (daily for 3 months) (1 study) Studies involving Aboriginal Australians (1 study): Eye washing by school teachers alone or combined with tetracycline eye drops.
Comparator(s)	No intervention; mass antibiotic treatment if the intervention group also received treatment.	Tetracycline ointment (1 study); Tetracycline eye drops; no intervention (2 arms in one study)
Outcomes	 Primary: Number of participants with active trachoma, Measured by: Thylefors 1987 scale, or comparable scales Follow up time: 6, 12, >12 months post-treatment allocation Secondary: Number of participants with an unclean face (eye or nasal discharge based on WHO 2001 or any other definition used in trials) 	 Primary: Number of participants with active trachoma at 12 months (1 trial, using Thylefors scale) and at 3 months (1 trial, using a simplified grading scheme for follicular trachoma) Secondary: Number of participants with an unclean face (1 trial); number of participants with severe trachoma (1 trial)
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Partial - considered equity but assessment not comprehensive (e.g. no a priori framework, reporting limited to data in included studies)
Ongoing studies i peoples	nvolving Aboriginal and Torres Strait Islander	None identified

Farley 2014

		Number of studies	Number of participants
All quantitative e	valuations	7	824
Those involving A Torres Strait Islar		1	96 (71 Aboriginal children)
	What the revi	ew looked for	What the review found
Study design(s)	Randomised ti	ials	Randomised trials (7 studies)
			Studies involving Aboriginal Australians: Randomised trial (1 study)
Participants	clinical criteria	on: Bronchiolitis, diagnosed using (e.g. respiratory distress preceded	Health condition(s): Bronchiolitis (clinically diagnosed)
		ptoms, with or without fever) Inder 2 years of age	Age: Children under 2 years of age (6 trials), children under 7 months (1 trial)
	No restrictions demographic o	on severity, co-morbidities, or socio- characteristics	Socio-demographic characteristics: Low income countries (2 studies), upper-middle income countries (2 studies), high income countries (3 studies)
			Studies involving Aboriginal Australians (1 study): one study included Aboriginal children (71/96 participants, 74%), of whom two thirds were from remote areas.
Countries	Any country		Australia (1 study), Bangladesh (2 studies), Brazil (1 study), Turkey (1 study), Not reported (2 studies, high income countries)
Intervention(s)	Oral, intravend antibiotics	ous, intramuscular or inhaled	Antibiotic treatment: oral erythromycin (2 studies), intravenous ampicillin (2 studies), clarithromycin (1 study), azithromycin (3 studies), oral ampicillin (2nd arm of a 3 arm study)
			Studies involving Aboriginal Australians (1 study): A single large dose of oral liquid azithromycin (30mg/kg)
Comparator(s)	Placebo		Studies involving Aboriginal Children: placebo
Outcomes	bronchiolitis (requirement; c	tion of signs/symptoms of duration of supplementary oxygen oxygen saturation; wheeze;	Primary: Duration of supplementary oxygen requirement (3 studies); oxygen saturation (1 study); wheeze (1 study); fever (1 study)
	discharge from	uration of admission/time to hospital, readmissions, /adverse events (including death),	Secondary: Duration of admission/time to discharge from hospital, readmissions, adverse events (deaths), radiological findings
Consideration of Islander peoples	effects on equit	y for Aboriginal and Torres Strait	Minimal or no consideration of equity
Ongoing studies i	nvolving Aborig	inal and Torres Strait Islander	None identified

Gao 2014

Objective: To review the effects of macrolide therapy in adults and children with non-cystic fibrosis bronchiectasis

	Number of studies	Number of participants
All quantitative evaluations	9	559
Those involving Aboriginal and Torres Strait Islander peoples	1	89

	What the review looked for	What the review found
Study design(s)	Randomised trials	Randomised trials (9 studies)
		Studies involving Aboriginal Australians: Randomised trial (1 study)
Participants	Health condition: Clinically stable non-cystic fibrosis bronchiectasis defined by high-resolution computed tomography (HRCT)	Health condition(s): Clinically stable non-cystic fibrosis bronchiectasis defined by high-resolution computed tomography (HRCT)
	Age: Adults or children	Age: Adults (6 studies), children (3 studies)
	No restrictions on co-morbidities or socio- demographic characteristics.	Socio-demographic characteristics: One study in Aboriginal communities.
		Studies involving Aboriginal Australians (1 study): Children aged 1 to 8 years with confirmed bronchiectasis or chronic suppurative lung disease, and 1 or more exacerbation in the past year. Children on long-term antibiotics or with chronic conditions were excluded.
Countries	Any country	Not reported. One trial in Australia.
Intervention(s)	Long-term macrolide treatment (more than 2 months)	Long-term macrolide treatment (more than 2 months): azithromycin (5 studies), erythromycin (3 studies), roxithromycin (1 study)
		Duration of treatment: 8 weeks to 24 months
		Studies involving Aboriginal Australians (1 study): azithromycin (weekly for 12-24 months)
Comparator(s)	Placebo or usual care	Placebo (7 trials); usual medication care (2 trials)
Outcomes	Primary: Number of bronchiectasis exacerbations (including the total number of patients experiencing one or more exacerbations);	Primary: Total number of patients experiencing one or more exacerbation (9 trials); frequency (rate) of exacerbation (4 trials)
	frequency of exacerbation	Follow up time: 2 to 12 months
	Measured by: Not specified Follow up time(s): Not specified	Secondary: Admissions for infective exacerbations (3 trials), quality of life (5 trials), spirometric indices
	Secondary: Admissions for infective exacerbations,	(6 trials, various measures), sputum volume (4
	quality of life (QoL), spirometric indices, sputum volume, 6-minute walk test (6MWT) and adverse events	trials), 6-minute walk test (2 trials), adverse events (6 trials)
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Minimal or no consideration of equity
Ongoing studies i peoples	nvolving Aboriginal and Torres Strait Islander	Not reported

Gould 2013

Objective: To review the effects of culturally targeted anti-tobacco media messages for indigenous or First Nations people

	Number of studies	Number of participants
All quantitative evaluations	14 (plus 6 qualitative studies)	15,268 (quantitative evaluations only)
Those involving Aboriginal and Torres Strait Islander peoples	3 (plus one qualitative study)	1361

	What the review looked for	What the review found
Study design(s)	Any design (quantitative or qualitative evaluations)	Randomised trials (4 studies), before-and-after studies without control (5 studies), unclear design (5 studies). The remaining 6 studies were qualitative (not considered here).
		Studies involving Aboriginal Australians: Before- and-after studies without control (1 study), post- intervention survey (2 studies)
Participants	Health condition: Tobacco smoking prevention and cessation	Health condition: current smokers, recent quitters and non-smokers
	Socio-demographic characteristics: Indigenous people	Age: Adults and children; 7 studies focussed on young people.
	No restrictions of co-morbidities, age, sex.	Sex: Male and females; 2 studies focussed on women.
		Socio-demographic characteristics: Indigenous people from urban, rural and remote communities
		Studies involving Aboriginal Australians: Remote (2 studies), rural and urban (1 study), rural (1 study). Two studies included non-Aboriginal participants (50% in one study, 10% in the other).
Countries	Australia, New Zealand, Canada, USA	Australia, New Zealand, USA, Canada
Intervention(s)	Media-based anti-tobacco messages culturally targeted for indigenous people including television or radio campaigns, print media, internet, mobile phone	Media-based anti-tobacco messages culturally targeted for indigenous people, delivered by
		(1) Television or radio advertisements (6 studies)
		(2) Print media (e.g. cigarette pack health warning (3 studies)
		(3) Internet (e.g. SmokingZine website) (1 studies)
		(4) Mobile phone messaging (culturally appropriat text and video) (2 studies)
		(5) Other (e.g. culturally targeted video) (3 studies)
		Evaluations involving Aboriginal Australians: (1) Television or radio advertisements (4 studies), (2) Other: multi-faceted including CD-ROM delivered in schools and the community (1 study).
Comparator(s)	Any comparator	Media-based anti-tobacco message that were not culturally targeted for indigenous people (1 study, unclear design), no anti-tobacco message (1 randomised trial), unclear (3 randomised trials), no comparator (9 studies).
		Quantitative evaluations involving Aboriginal Australians: no comparators (4 studies)

	What the review looked for	What the review found
Outcomes	Primary: Not specified	Primary: Not specified
	Secondary: Smoking behaviour (cessation, quit rates, intention to quit or smoke), knowledge, attitudes, beliefs, message recall	Secondary: Smoking behaviour (cessation, attempts to quit, intention to quit or smoke), knowledge, attitudes, beliefs, message recall
		Measured by: self-report, biochemically validated, questionnaire
		Follow up: varied across studies, immediate to 6 months.
		Other outcomes: calls to Quitline, cultural suitability, recall of messages or campaign
Consideration Islander people	of effects on equity for Aboriginal and Torres Strait es	Yes - explicit consideration using other 'equity lens' (e.g. framework specific to review topic)
Ongoing studie peoples	es involving Aboriginal and Torres Strait Islander	Not reported

Guy 2012

Objective: To review the effects of sexually transmissible infection (STI) programs delivered by primary health care services in remote Aboriginal communities

	Number of studies	Number of participants
All quantitative evaluations	4 program evaluations (12 publications)	15,197
Those involving Aboriginal and Torres Strait Islander peoples	4 programs	All participants were Aboriginal and Torres Strait Islander people

	What the review looked for	What the review found
Study design(s)	Cohort studies reporting data over a 5-year period or more	Cohort studies reporting data over a 5-year period or more
		All or most studies involved Aboriginal and Torres Strait Islander peoples
Participants	Health condition: People with or at risk of sexually transmissible infection	Health condition(s): People with or at risk of sexually transmissible infection
	Socio-demographic characteristics: Aboriginal	Age: 14-40 years
	Australians living in remote communities.	Sex: Not reported
	No restrictions on co-morbidities, age, sex	Socio-demographic characteristics: Aboriginal Australians living in remote communities.
Countries	Australia	Australia
Intervention(s)	Sexually transmissible infection programs delivered by primary health care services in remote Aboriginal communities	Sexually transmissible infection (STI) programs in remote Aboriginal communities
		 Annual community STI screening (over 4- to 8- week periods in the target age groups)
		(2) Opportunistic testing of people attending clinical services (e.g. during antenatal checks and adult health checks)
		Additional intervention components included: community education, educational materials about STI's, and training of local staff in sexual health.
		Setting in which intervention delivered: 52 primary

	What the review looked for	What the review found
		health clinics in remote Aboriginal communities (4 studies). Most were Aboriginal Community Controlled Health Services.
Comparator(s)	No comparator	No comparator
Outcomes	Primary: Bacterial STI infection prevalence in the target age group	Primary: STI prevalence or positivity (chlamydia, gonorrhoea and syphilis)
	Secondary: Process outcomes: testing coverage in target age group; number of chlamydia and gonorrhoea tests per week; extent of treatment; extent of contact tracing	Measured by: STI testing reports from individual health services and centres
		Follow-up times: routine reporting over 5 year period
		Secondary: Process outcomes: testing coverage in target age group; number of chlamydia and gonorrhoea tests per week; extent of treatment; extent of contact tracing
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Yes - explicit consideration using other 'equity lens' (e.g. framework specific to review topic)
Ongoing studies peoples	involving Aboriginal and Torres Strait Islander	Not reported

Harlow 2014

Objective: To review the effects of suicide prevention programs for indigenous youth

	Number of studies	Number of participants
All quantitative evaluations	6 program evaluations (plus 2 qualitative evaluations and 1 program description)	353 (quantitative evaluations; N not reported for 1 study)
Those involving Aboriginal and Torres Strait Islander peoples	1 program (plus 1 program description)	57

	What the review looked for	What the review found
Study design(s)	Any design	Before-and-after studies with control (1 study, unclear if concurrent control), before-and-after studies without control (4 studies), interrupted time series study without control (1 study, description in review suggests ITS)
		Studies involving Aboriginal Australians: Before- and-after studies without control (1 study)
Participants	Health condition: Suicide prevention Socio-demographic characteristics: Indigenous	Health condition: Suicide prevention for at risk and other youth
	youth No restrictions on co-morbidities, sex	Co-morbidities: Symptoms of PTSD, anxiety and depression, alcohol and drug use among some participants
		Socio-demographic characteristics: Indigenous (6 studies). Remote and rural locations (4 studies), not-specified (2 studies)
		Studies involving Aboriginal Australians (1 study): 48 of 57 participants were Aboriginal, all from a rural setting. Mean age was 36 years (range 19 to 55).

	What the review looked for	What the review found
Countries	Australia, New Zealand, Canada, United States	Australia (1 study), USA (5 studies)
Intervention(s)	 Youth suicide prevention programs categorised using the Center for Disease Control's (CDC) categories: (1) School gatekeeper training; (2) Community gatekeeper training; (3) General suicide education; (4) Screening programs; (5) Peer support programs; (6) Crisis centers and hotlines; (7) Means restriction; (8) Intervention after a suicide 	 Youth suicide prevention programs categorised as: (1) Community gatekeeper training (1 study) (2) General suicide education and peer support (4 studies, 3 of which also included community and/or school gatekeeper training) (3) Intervention in response to trauma (1 study) Setting in which intervention delivered: community (2 studies), school (4 studies) Studies involving Aboriginal Australians (1 study): Community gatekeeper training
Comparator(s)	Any comparator	No comparators.
Outcomes	Primary: Not specified Secondary: Not specified	 Primary: Not specified Secondary: Health outcomes: suicidal thoughts/behaviours, suicide attempt/risk taking behaviours in school, knowledge and views on suicide Measured by: mainly self-report Follow up: reported in review as pre, post or during program Other outcomes: satisfaction with program, community acceptability
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Yes - explicit consideration using other 'equity lens' (e.g. framework specific to review topic)
Ongoing studies i peoples	nvolving Aboriginal and Torres Strait Islander	Not reported

Hunt 2013

Objective: To review the effects of psychosocial interventions for reduction in substance use among people with a serious mental illness

	Number of studies	Number of participants
All quantitative evaluations	32	3165
Those involving Aboriginal and Torres Strait Islander peoples	1	49

	What the review looked for	What the review found
Study design(s)	Randomised trials	Randomised trials (32 studies)
		Studies involving Aboriginal Australians: Randomised trial (1 study)
Participants	Health condition: People with both severe mental illness and substance misuse Severity of condition: Severe defined as "people with chronic mental illness like schizophrenia who	People with severe mental illness (mainly schizophrenia, schizophrenia disorder or psychosis). All had a diagnosis of substance use disorder or evidence of substance misuse.

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	What the review looked for	What the review found
	present to adult services for long-term care" [p8]	Age: 18 to 65 years
	Exclusions: Organic disorder, non-severe mental illness (e.g. post-traumatic stress disorder (PTSD), anxiety disorders), tobacco abuse Socio-demographic characteristics: No restrictions	Socio-demographic characteristics: Some participants were homeless, had a history of unstable accommodation, or were incarcerated a the time of the study.
		Studies involving Aboriginal Australians (1 study): Men and women living in 3 remote communities, mainly with diagnosis of schizophrenia (39%) or major depression (45%). Mean age was 21 years (those under 18 years were excluded).
Countries	Any country	USA (21 trials), Australia (6 trials), UK, Germany, Switzerland, Denmark, Ireland
		No trials from low or middle income countries.
ntervention(s)	Psychosocial interventions for substance misuse	Psychosocial interventions categorised as:
	categorised as:	(1) Long-term integrated care (4 trials)
	(1) Long-term integrated and non-integrated care by community mental health teams	(2) Non-integrated intensive case management (4 trials)
	(2) Non-integrated models of care or intensive case management	(3) Motivational interviewing plus cognitive behavioural therapy (7 trials)
	(3) Patient or client focused short-term	(4) Cognitive behavioural therapy alone (2 trials)
	interventions using individual approaches (cognitive behavioural therapies, motivational interviewing, contingency management)	(5) Motivational interviewing alone (8 trials)
		(6) Skills training (2 trials)
	(4) Patient or client focused short-term interventions using group approaches (Social skills training)	(7) Contingency management (2 trials)
		Studies involving Aboriginal Australians (1 study): Motivational interviewing delivered in 2 brief
	Duration and intensity of treatment categorised as:	sessions (1 hour) 2-6 weeks apart.
	(a) long-term interventions that offered an array of services with different levels of integration and assertive outreach	
	(b) stand-alone interventions received over shorter periods	
Comparator(s)	Standard care, treatment as usual	Treatment as usual
		Studies involving Aboriginal Australians: Delayed treatment (motivational interviewing).
Outcomes	Primary: Loss to treatment, substance (non- alcohol) use, symptoms	Primary: Loss to treatment (3, 6, 12 months), substance (non-alcohol) use, symptoms
	Follow up time(s): 3, 6, 9, 12, 18, 24 and 36 months	Studies involving Aboriginal Australians: did not
	Secondary: Number lost to evaluation, death (all causes), substance use (alcohol drugs or both),	measure primary outcomes specified in the review Secondary: Global assessment of functioning,
	readmissions, homelessness	general life satisfaction, death
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Minimal or no consideration of equity
Ongoing studies i peoples	nvolving Aboriginal and Torres Strait Islander	Not reported

Jongen 2014

Objective: To review the effects of Aboriginal and Torres Strait Islander maternal and child health programs

	Number of studies	Number of participants
All quantitative evaluations	7 program evaluations (10 studies; plus 2 qualitative evaluations and 11 descriptions of programs)	> 6000 (not reported for 4 studies)
Those involving Aboriginal and Torres Strait Islander peoples	7 programs (10 studies)	All participants were Aboriginal and Torres Strait Islander people

	What the review looked for	What the review found
Study design(s)	Any design	Before-and-after studies with control (2 studies); before-and-after studies without control (2 studies); historical control study (2 studies); case control studies (4 studies)
		All or most studies involved Aboriginal and Torres Strait Islander peoples
Participants	Health condition: Maternal and child health Socio-demographic characteristics: Aboriginal and	Women who were pregnant or receiving peri- or post-natal care. Babies and children.
	Torres Strait Islander people	Age: Two programs were for teenage and young Aboriginal mothers. Age range over which care was delivered for children was not specified (6 programs) or varied across programs (up to 14 years).
		Socio-demographic characteristics: Aboriginal and Torres Strait Islander women and children. Urban (3 programs), rural (2 programs), remote (4 programs), rural and urban (1 program)
Countries	Australia	Australia (10 studies)
Intervention(s)	Aboriginal and Torres Strait Islander maternal and child health programs and services	Aboriginal and Torres Strait Islander maternal and child health programs and services in which the main intervention was:
		(1) Antenatal and postnatal care (6 studies)
		(2) Integrated or continuum model of maternity care (3 studies)
		(3) Other (combination of nutritional intervention, counselling and maternal support) (1 study)
Comparator(s)	Any comparator	Not reported
Outcomes	Primary: Not specified	Primary: Not specified
	Secondary: Any child or maternal health outcome; outcomes that predict child or maternal health	Secondary: Child or maternal health outcomes: birth weights, pre-term birth, perinatal mortality, gestational age, maternal weight, caesarean, breastfeeding rates, smoking during pregnancy
		Other outcomes: experience of care, service attendance, antenatal visits, giving birth in hospital or local maternity service, referrals to support
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Yes - explicit consideration using other 'equity lens' (e.g. framework specific to review topic)

What the review looked for

What the review found

peoples

Kristjansson 2015

Objective: To review the effects of supplementary feeding interventions, alone or with co-intervention, for improving the physical and psychosocial health of disadvantaged children aged three months to five years.

	Number of studies	Number of participants
All quantitative evaluations	32	Total not reported, but each of the 3 main analyses included 1000 to 1600 participants
Those involving Aboriginal and Torres Strait Islander peoples	1	116

	What the review looked for	What the review found
Study design(s)	Randomised trials; cluster randomised trials; before-and-after studies with concurrent controls; interrupted time series studies	Randomised trials (5 studies); cluster randomised trials (16 studies); before-and-after studies with concurrent controls (11 studies)
		Studies involving Aboriginal Australians: Cluster before-and-after study with concurrent controls (1 study)
Participants	Health condition: Disadvantaged children (low- income, malnourished, undernourished, underweight or stunted) Severity of condition: Excluded severely malnourished children (those with a weight-for- height z-score of three standard deviations or more below the mean) Age: 3 months to 5 years Socio-demographic characteristics: Socio- economically disadvantaged, rural or urban, low education and/or income	Health condition(s): Disadvantaged children Severity of condition: Mild to moderate malnourishment. In almost all studies in low- and middle-income countries, a high proportion of children had low weight-for-age z-scores (WAZ) or height-for-age z-scores (HAZ). Age: 3 months to 5 years Socio-demographic characteristics: Many children came from low income areas and had parents with low education, low income, or both. Studies involving Aboriginal children (1 study): children aged 4 years (average) in remote, low SES communities. Weight and height consistently below average; nutrients below "acceptable levels".
Countries	Any country	 High-income countries: Australia (1 study), Canada (1 study), United States (1 study). Low and middle income countries: India (6 studies), Bangladesh (2 studies), Jamaica (2 studies), Indonesia (2 studies), Columbia (2 studies), Malawi (3 studies), Niger, Nigeria, Kenya, Peru, South Africa, Vietnam, Thailand, Brazil, Ecuador, Haiti, Mexico (1 study each), multi-national (1 study; Bolivia, Caledonia, Congo, Senegal)
Intervention(s)	Supplementary feeding involving provision of energy and macronutrients through: (1) hot or cold meals (breakfast or lunch), (2) snacks (including both food and beverages such as milk or milk substitutes), (3) meals or snacks in combination with take-home rations, or (4) take-home rations. Setting in which intervention delivered: include	Supplementary food alone (16 studies) or with co- interventions (18 studies) (e.g. food rations for the family, cash transfers to families). Examples of supplementary food included Ready- to-Use Therapeutic Feeding (RUTF) with or without other foods (11 studies), locally available foods such as fruit, vegetables, rice and lentils (7 studies).

	What the review looked for	What the review found
	preschool, day care, community settings, take-	Food was fortified in 16 studies.
	home rations, home-delivered rations	Studies involving Aboriginal children (1 study): Hot lunches in day cares (adjunctive intervention; 2/3 of daily recommended allowance) over 8 months. Multivitamin supplements.
Comparator(s)	No supplementary feeding; placebo controls (e.g. low-energy foods or drinks)	No supplementary feeding (27 studies), nutritional education (1 study), health care (3 studies), health care and nutritional counselling (1 study)
Outcomes	Primary: Physical health: Growth (weight, height, weight-for-age, height-for-age, weight-for-height).	Primary: Physical health: 31 of 32 studies provided data on nutritional outcomes reporting measures
	Psychosocial health: psychomotor development, cognitive development or mental development,	of growth (weight, height, weight-for-age, height- for-age, weight-for-height).
	attention, language, memory	Psychosocial health: psychomotor development, cognitive development or mental development.
	Adverse effects: substitution or leakage (e.g. sharing home rations with other family members).	Adverse effects: substitution or leakage (e.g. sharing home rations with other family members).
	Secondary: Physical health: biochemical markers	
	of nutrition, physical activity, morbidity, mortality, overweight or obesity	Secondary: Not extracted
	Psychosocial outcomes: stigmatisation, behaviour problems	
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Yes - explicit consideration using other 'equity lens' (e.g. framework specific to review topic)
Ongoing studies peoples	involving Aboriginal and Torres Strait Islander	None identified

Lee 2013

Objective: To review the effects of interventions designed to prevent or treat substance use among young Indigenous Australians

	Number of studies	Number of participants
All quantitative evaluations	8	> 266 (participant numbers not reported for all studies)
Those involving Aboriginal and Torres Strait Islander peoples	8	All participants were Aboriginal and Torres Strait Islander people

	What the review looked for	What the review found
Study design(s)	Quantitative evaluations (any design)	Before-and-after studies without control (7 studies), unclear (1 study)
		All or most studies involved Aboriginal and Torres Strait Islander peoples
Participants	Health condition: Prevention or treatment of substance use among young people	Health condition: Prevention or treatment of substance use among young people. Known
	Age: 8-25 years	history of substance use (1 study).
	Socio-demographic characteristics: Aboriginal and	Age: 8 to 32 years
	Torres Strait Islander people	Socio-demographic characteristics: Aboriginal Australians living in remote communities (8 studies)

	What the review looked for	What the review found
Countries	Australia	Australia (8 studies)
Intervention(s)	Programs designed to prevent or treat substance use among young Indigenous Australians	Substance use prevention and treatment categorised as:
		(1) School-based education programs (2 studies),
		(2) Peer support training,
		(3) Employment and skills training,
		(4) Cultural enhancement and recreational activities,
		(5) Parental skills training
		(6) Juvenile diversion programs.
		Most were aimed at young people irrespective of prior substance use (6 studies).
		Substances targeted: tobacco (1 study), alcohol (1 study), petrol (3 studies), multiple substances (3 studies)
		Setting in which intervention was delivered: community (4 studies), school (3 studies), diversion service (1 study)
Comparator(s)	Any comparator	No comparators
Outcomes	Primary: Substance use	Primary: Substance use (mainly self-report)
	Secondary: Not specified	Secondary: Health-related outcomes: Knowledge (of substance use, related harms), blood lead levels
		Other outcomes: Number people reached by the intervention, school attendance, employment status, criminal activity,
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Yes - explicit consideration using other 'equity lens' (e.g. framework specific to review topic)
Ongoing studies i peoples	involving Aboriginal and Torres Strait Islander	Not reported

MacLean 2012

Objective: To review the effects of psychosocial therapeutic interventions for volatile substance use

	Number of studies	Number of participants
All quantitative evaluations	19	> 716 (participant numbers not specified in 3 studies)
Those involving Aboriginal and Torres Strait Islander peoples	5	> 122 (participant numbers not specified in 2 studies)

	What the review looked for	What the review found
Study design(s)	Randomised trials; comparative studies with or without concurrent controls; case series with either post-test or pre-test/post-test outcomes	Before-and-after study with concurrent control (2 studies); before-and-after studies without control (8 studies), descriptive case series (9 studies)
		Studies involving Aboriginal Australians: before- and-after studies without control (1 study), descriptive case series (4 studies)

	What the review looked for	What the review found
Participants	Health condition: Volatile substance use (solvent, inhalants, volatile substance, gasoline, petrol and	Health condition: volatile substance use (current or previous)
	glue) No restrictions on co-morbidities, age, or socio-	Age: Mostly adolescents and young adults (17 studies)
	demographic characteristics	Socio-demographic characteristics: Remote and urban
		Studies involving Aboriginal Australians: History of volatile substance use (5 studies). Adolescents and young adults (4 studies), unclear (1 study). Place of residence remote (4 studies), unclear (1 study).
Countries	Any country	Australia (8 studies), United States (4 studies), Canada (3 studies), United Kingdom (3 studies), Brazil (1 study)
Intervention(s)	Psychosocial therapeutic approaches for volatile substance use including:	Psychosocial therapeutic approaches for volatile substance use categorised as:
	(1) Case management;	(1) Case management (1 study);
	(2) Counselling;	(2) Counselling (8 studies);
	(3) Activity and engagement programmes;(4) Residential programmes	(3) Activity and engagement programmes (7 studies);
	(5) Other (e.g. early intervention, brief	(4) Residential programmes (6 studies)
	interventions, family or group therapy)	(5) Combinations of intervention modalities (13 studies)
		Studies involving Aboriginal Australians: (1) case management (1 study); (2) counselling (1 study); (3) activity and engagement programmes (3 studies)
		Setting: community, residential outstation
Comparator(s)	Any comparator	Lesser intensity therapy (1 study), not reported (1 study), no comparators (17 studies)
Outcomes	Primary: Not specified.	Primary: Not specified
	Secondary: Not specified	Secondary: Health outcomes: Substance use (inhalant consumption, petrol or glue sniffing, cannabis use), blood lead levels, drug relapse, psychosocial clinical outcomes, general health
		Measured by: self-report, blood test, staff-reported
		Follow-up time(s): varied from 15 days to 4 years post-intervention
		Other outcomes: family functioning, employment status, crime, accommodation status, school attendance
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Yes - explicit consideration using other 'equity lens' (e.g. framework specific to review topic)
Ongoing studies peoples	involving Aboriginal and Torres Strait Islander	Not reported

McCalman 2014a

Objective: To review characteristics, implementation and effects of indigenous health promotion tools

Number of studies

Number of participants

All quantitative evaluations	5 (plus 6 qualitative evaluations)	Not reported	
Those involving Aboriginal and Torres Strait Islander peoples	4 (plus 1 qualitative)	Not reported	

	What the review looked for	What the review found
Study design(s)	Any design	Not reported All or most studies involved Aboriginal and Torres Strait Islander peoples
Participants	Health condition(s): Health promotion Socio-demographic characteristics: Aboriginal and Torres Strait Islanders	Participant characteristics not reported. Areas of health covered by evaluated tools were: preganancy and childbirth, neonatal health, healthy weight, substance use (alcohol, smoking), mental health, healthy lifestyle, cardiovascular health. Socio-demographic characteristics: Aboriginal Australians (4 studies), unspecified USA (1 study)
Countries	Australia (evaluations in other countries included if tool used or adapted for Indigenous Australian health promotion)	Australia (3 studies), USA (1 study)
Intervention(s)	Indigenous-specific or non-indigenous specific tools (structured step-by-step guides, instruments, packages, frameworks or resources) that were designed, recommended or used to plan, implement or evaluate an indigenous Australian health promotion program	 Health promotion tools categorised as: (1) Training packages (coping skills for partners of alcoholics, cardiovascular health, smoking cessation) (3 studies); (2) Practice framework (women's cultural) (1 study); (3) Guidelines (alcohol related problems) (1 study) Setting (where reported): community based (remote, rural), alcohol rehabilitation settings
Comparator(s)	Any comparator	No comparative studies.
Outcomes	Primary: Not specified Secondary: Health promotion practice and health outcomes	Primary: Not specified Secondary: Reported outcomes included measures of health and health care delivery, most specific to the tool (e.g. birth weights, mental health, alcohol related behaviours, health professional practice relating to alcohol use). Outcome measurement methods and follow-up times were not reported.
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Yes - explicit consideration using other 'equity lens' (e.g. framework specific to review topic)
Ongoing studies i peoples	nvolving Aboriginal and Torres Strait Islander	Not reported

Olsen 2014

Objective: National Hepatis B strategy: Scoping review of community response, prevention, diagnosis and screening (including prevalence and incidence), clinical management and other health care.

	Number of studies	Number of participants
All quantitative evaluations	1 evaluation (plus 43 reports on	Not reported

community response (1), prevention (12), diagnosis and screening (23), clinical management (14), other care (5))

Those involving Aboriginal and Torres Strait Islander peoples

1 evaluation (other 43 reports not checked Not reported for population)

	What the review looked for	What the review found
Study design(s)	Any design. Eligible studies had to report data related to one of the review questions. The definition of 'data' appears broad and may include data from reviews.	Not reported on a study-by-study basis. One randomised trial.
		Studies involving Aboriginal Australians: Randomised trial (1 trial)
Participants	Health condition(s): Hepatitis B	People with and without Hepatitis B, including
	Socio-demographic characteristics: Aboriginal and Torres Strait Islander people	highly susceptible populations (e.g. those who inject drugs)
	No restrictions on severity, co-morbidity, age, sex	Age: Adults, infants (in relation to immunisation)
		Socio-demographic characteristics: Aboriginal and Torres Strait Islander people and communities.
		In the single include trial, participants were people susceptible to Hepatitis B transmission through injecting drugs. 16/139 (12%) participants identified as Aboriginal and/or Torres Strait Islander.
		All included studies involved Aboriginal and Torres Strait Islander people either with or without hepatitis B.
Countries	Australia	Australia (1 evaluation, 43 other studies)
Intervention(s)	Any type of hepatitis B prevention (e.g. vaccination programs), diagnosis and screening, model of clinical management (e.g. specialist care), model for delivering care and support (e.g. integrated	Interventions to prevent hepatitis B: Financial incentive (\$30 AUD) for completing course of hepatitis B vaccinations; reminder to return in 7 days (1 study)
	support).	Intervention provider: Practice nurse
	The review did not examine specific diagnostic tests or clinical treatments.	Intervention setting: Two inner-city health services and a field study site
Comparator(s)	Any comparator	Standard care (no financial incentive; reminder to return in 7 days) (1 study)
Outcomes	Primary: Not specified	Primary: Not specified.
	Secondary: Not specified	Primary trial outcome: Completion of hepatitis B vaccination series
		Secondary: Drug use and treatment, risk-taking histories (secondary outcomes of the included trial)
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Yes - explicit consideration using other 'equity lens' (e.g. framework specific to review topic)
Ongoing studies i peoples	nvolving Aboriginal and Torres Strait Islander	Not reported

Passey 2013

Objective: To review the effects of smoking cessation interventions targeting pregnant Indigenous women

Number of studies

Number of participants

All quantitative evaluations	2
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1

Those involving Aboriginal and Torres Strait Islander peoples

Not reported
Not reported

	What the review looked for	What the review found
Study design(s)	Quantitative evaluations (with control group)	Randomised trial (1 trial); controlled clinical trial (1 trial)
		Studies involving Aboriginal Australians: Randomised trial (1 trial)
Participants	Pregnant women who smoke (not clear if women who had recently quit were eligible)	Pregnant women who smoke (not clear if women who had recently quit were eligible)
	Socio-demographic characteristics: Indigenous	Socio-demographic characteristics: Indigenous
		Studies involving Aboriginal Australians (1 study): Women (at or before 20 weeks gestation); current smokers or recent quitters. Excluded pregnancy complicated by a mental illness or receiving treatment for chemical dependencies. Socio- demographic characteristics: Low SES and minorit ethnic group.
Countries	Any country	Australia, USA
Intervention(s)	Smoking cessation interventions	Culturally tailored smoking cessations interventions developed for pregnant Indigenous women that combined:
		- face-to-face counselling
		- structured follow-up
		- involvement of family members
		- nicotine replacement therapy (2 studies)
		Studies involving Aboriginal Australians (1 study): Counselling (tailored): GP advice to quit smoking 'cold turkey' and return for follow up visits. First follow-up (day 3-5) partner or support person invited to attend visit with Aboriginal health worker. Second follow-up (day 7-10) offered NRT if still smoking and no contraindications. Setting: urban.
Comparator(s)	Any comparator	Usual care
Outcomes	Primary: Not specified	Primary: Not specified
	Secondary: Not specified	Secondary: Trial outcomes measure not reported in the review
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Partial - considered equity but assessment not comprehensive (e.g. no a priori framework, reporting limited to data in included studies)
Ongoing studies i peoples	nvolving Aboriginal and Torres Strait Islander	Not reported

Schofield 2014

Objective: To review the effects of diabetes primary care workforce models in Australia

Number of studies

Number of participants

Overview of systematic reviews of research into the health of Aboriginal and Torres Strait Islander peoples All quantitative evaluations 11 (plus 3 reviews or policy papers) Health professionals: not reported
Patient participants: > 2932 (not reported
for 3 studies) Those involving Aboriginal and
Torres Strait Islander peoples 3 > 110 health professionals, > 1100 patients,
> 86 Aboriginal and Torres Strait Islander peoples What the review looked for What the review found

	What the review looked for	What the review found
Study design(s)	Quantitative evaluations (any design)	Randomised trials (2 studies); before-and-after study without control (4 studies); costing or cost effectiveness studies (2 studies); retrospective audit (1 study); unclear (2 studies)
		Studies involving Aboriginal Australians: Cost impact analysis (1 study); before-and-after study without control (2 studies)
Participants	Health professionals and services caring for people with diabetes. People with or at risk of diabetes. Socio-demographic characteristics: No restrictions.	Health professional participants: multidisciplinary teams (6 studies), pharmacists (2 studies), not reported (3 studies)
		People with or at risk of diabetes: Most services were designed to care for people with type 2 diabetes.
		Socio-demographic characteristics: rural (4 studies), remote (1 costing study), rural and urban (1 study), urban (2 studies).
		Studies involving Aboriginal and Torres Strait Islander people (extracted from studies): Regional and surrounding rural area (1 study), rural and remote (1 study), remote - Torres Strait Islands (1 study). Health professional participants: multidisciplinary (2 studies, including doctors, pathologists, Aboriginal health workers, allied health), not reported (1 study).
Countries	Australia	Australia (10 studies). One study was in the Torres Strait Islands.
Intervention(s)	Diabetes primary care workforce models (Not further defined)	Diabetes primary care workforce models: (1) One-stop shops or coordinated diabetes treatment (e.g. multidisciplinary care teams, diabetes specialist support clinics, disease management program) (5 studies)
		(2) Pharmacy models (e.g. goal directed medication and lifestyle counselling; regular consultation with pharmacists) (2 studies)
		(3) Aboriginal services (e.g. tailored diabetes care delivered through Aboriginal and Torres Strait health services) (3 studies)
		(4) Telephone counselling (1 study)
		Studies involving Aboriginal and Torres Strait Islander people: Diabetes primary care workforce models delivered through Aboriginal and Torres Strait health services:
		(1) District wide implementation of new diabetes service in Torres Strait Islands (visiting specialist, patient registers, care plans, recall system, training of local health workers, system for reporting care

	What the review looked for	What the review found
		quality) (1 study)
		 (2) QAAMS (quality assurance for Aboriginal medical services) point of care testing program in aboriginal rural communities (1 study); (3) Self-management support program (the Flinders model), administered by Aboriginal Health workers (1 study).
Comparator(s)	Any comparator	Usual care (1 trial, 1 cost effectiveness analysis), lower intensity intervention (1 trial), models of care in period prior to introduction of new service (4 BA studies, 1 costing study), unclear (3 studies)
Outcomes	Primary: Not specified. (In background, the authors state it is important to assess whether the model "is likely to achieve" its intended aims and "represents value for money" (p496) Secondary: Not specified	Primary: Not specified
		Secondary: Health and professional practice outcomes (examples): glycaemic control (HbA1c), quality of life (SF12), self management (knowledge, attitudes, behaviour, impact), HBA1c test ordering
		Measured by: clinical data (medical records), self report surveys administered to health professionals and patients
		Follow-up time(s): short and long term outcomes (4 months to 40 years). 12 months in studies involving Aboriginal and Torres Strait Islander people.
		Other outcomes: satisfaction and acceptability of services (patient and health professional); access to services
Consideration of Islander peoples	effects on equity for Aboriginal and Torres Strait	Partial - considered equity but assessment not comprehensive (e.g. no a priori framework, reporting limited to data in included studies)
Ongoing studies i peoples	nvolving Aboriginal and Torres Strait Islander	Not reported

van Zon 2012

Objective: To review the effects of antibiotics in children up to 18 years with otitis media with effusion

	Number of studies	Number of participants
All quantitative evaluations	23	3027
Those involving Aboriginal and Torres Strait Islander peoples	1	103

	What the review looked for	What the review found
Study design(s)	Randomised trials	Randomised trials (23 studies) Studies involving Aboriginal Australians: Randomised trial (1 study)
Participants	Health condition(s): Otitis media with effusion (unilateral or bilateral) diagnosed by tympanometry alone or in combination with otoscopy. Severity of condition: Excluded children with	Health condition(s): Otitis media with effusion. Severity of condition: Proportion in each trial with unilateral versus bilateral OME varied widely Age: Children aged 5 months to 16 years (< 2 years in 14 trials)

Overview of systematic reviews of research into the health of Aboriginal and Torre	s Strait Islander peoples

	What the review looked for	What the review found
	ventilation tubes, chronic suppurative otitis media	Socio-demographic characteristics: Not reported
	Age: Children aged 18 years or under	Studies involving Aboriginal Australians (1 study):
	Socio-demographic characteristics: No restrictions	Children aged 12 months or under from a regional centre.
Countries	Any country	USA (8), Italy (2), the Netherlands (2), Sweden (2), Turkey (2), and 1 trial each in Australia, Denmark, Iran, Israel, Korea, Norway, UK
Intervention(s)	Oral antibiotics (of all types and courses of any duration)	Oral antibiotics. The types, dose and duration of antibiotic varied widely; most common types were Amoxicillin (6 studies), Trimethoprim- sulfamethoxazole (6 studies), Amoxicillin/clavulanic acid (4 studies) Studies involving Aboriginal Australians (1 study): Amoxicillin 50 mg/kg/day for 24 weeks (or until bilateral aeration of middle ears at 2 consecutive examinations)
Comparator(s)	Placebo, no treatment or therapy of unproven effectiveness (antihistamines, decongestants and mucolytics)	Placebo (12 studies), no treatment (8 studies), therapy of unproven effectiveness (3 studies) Studies involving Aboriginal children: placebo
Outcomes	Primary: Complete resolution of otitis media with effusion (OME)	Primary: Complete resolution of otitis media at 2 to 3 months (5 studies)
	Measured by: diagnosis made by tympanometry	Secondary: Complete resolution of otitis media
	alone or in combination with otoscopy	(more than 6 months, end of treatment), adverse effects (6 studies)
	Follow up time(s): 2 to 3 months Secondary: Complete resolution of OME (all time	
	points), partial or complete resolution of OME (all time points), partial or complete resolution of OME (all time points), hearing level, language and speech development, cognitive development, quality of life, insertion of ventilation tubes, tympanic membrane sequelae, adverse effects	
Consideration of effects on equity for Aboriginal and Torres Strait Islander peoples		Minimal or no consideration of equity
Ongoing studies i peoples	nvolving Aboriginal and Torres Strait Islander	Not reported

Appendix 3. Characteristics of excluded reviews

Review ID	Reason for exclusion
Al Subie 2012	Not a systematic review
Angell 2014	Review of cost effectiveness studies
Azzopardi 2012	Not a systematic review
Bainbridge 2014	Review identified studies involving Aboriginal and/or Torres Strait Islander peoples, but no quantitative evaluations of interventions.
Brown 2012	Not a systematic review
CADTH 2014a	Review did not identify any eligible studies involving Aboriginal and/or Torres Strait Islander peoples
CADTH 2014b	Review did not identify any eligible studies involving Aboriginal and/or Torres Strait Islander peoples
CADTH 2014c	Review did not identify any eligible studies involving Aboriginal and/or Torres Strait Islander peoples
Calabria 2012	Review did not identify any eligible studies involving Aboriginal and/or Torres Strait Islander peoples
Carey 2013	Review did not aim to evaluate the effects, implementation, or acceptability of an intervention intended to improve health
Carson 2012b	Review did not identify any eligible studies involving Aboriginal and/or Torres Strait Islander peoples
Christian 2012	Review did not aim to evaluate the effects, implementation, or acceptability of an intervention intended to improve health
Closing the Gap Clearinghouse 2013	Not a systematic review
Coyle 2013	Review examined factors influencing implementation.
Davis 2013	Review of prevalence
Demetriou 2012	Search date prior to January 2011
Dennis 2013	Review included one study involving Aboriginal women and non-indigenous women, but data not reported separately Aboriginal women in the review or trial.
Dunt 2014	Not a systematic review
Everett 2011	Search date prior to January 2011
Ewen 2012	Review did not aim to evaluate the effects, implementation, or acceptability of an intervention intended to improve health
Graham 2013	Review of prevalence
lshikawa 2014	Review did not identify any eligible studies involving Aboriginal and/or Torres Strait Islander peoples
lyngkaran 2014	Not a systematic review
John 2013	Not a systematic review
Johnston 2013	Review did not aim to evaluate the effects, implementation, or acceptability of an intervention intended to improve health

Review ID	Reason for exclusion
Johnston 2013	Review did not identify any eligible studies involving Aboriginal and/or Torres Strait Islander peoples
Kaufman 2013	Review included one study involving Aboriginal and non-indigenous women, but data not reported separately for Aboriginal women in the review or trial.
King 2014	Not a published systematic review (conference abstract only)
Kwan 2012	Not a systematic review
Laws 2014	Review did not identify any eligible studies involving Aboriginal and/or Torres Strait Islander peoples
MacLean 2015	Review did not identify any eligible studies involving Aboriginal and/or Torres Strait Islander peoples
Majoni 2013	Not a systematic review
McCallum 2012	Review did not identify any eligible studies involving Aboriginal and/or Torres Strait Islander peoples
McCalman 2014b	Review included studies involving Aboriginal and/or Torres Strait Islander peoples, but no quantitative evaluations of the effects of interventions on health.
McDonald 2013	Not a systematic review
Miller 2012	Review did not aim to evaluate the effects, implementation, or acceptability of an intervention intended to improve health
NHMRC 2013	Review did not identify any eligible studies involving Aboriginal and/or Torres Strait Islander peoples
Nikpour 2014	Review included studies involving Aboriginal and/or Torres Strait Islander peoples, but no quantitative evaluations of the effects of interventions on health.
Oono 2013	Review did not identify any eligible studies involving Aboriginal and/or Torres Strait Islander peoples
Remond 2013	Not a systematic review
Renfrew 2012	Review included one study involving Aboriginal and non-indigenous women, but data not reported separately for Aboriginal women in the review or trial.
Roy 2014	Not a systematic review
Shlonsky 2013	Not a published systematic review (title registration only)
Short 2014	Review included one study involving Aboriginal Australians, but the study did not measure any health outcomes.
Smith 2005	Review included studies involving Aboriginal and/or Torres Strait Islander peoples, but no quantitative evaluations of the effects of interventions on health.
Sukala 2012a	Review did not identify any eligible studies involving Aboriginal and/or Torres Strait Islander peoples
Sukala 2012b	Not a systematic review
Tan 2012	Review examined factors influencing implementation.
Тарр 2015	Review did not aim to evaluate the effects, implementation, or acceptability of an intervention intended to improve health

Review ID	Reason for exclusion
Taylor 2012	Search date prior to January 2011
Tricco 2012	Search date prior to January 2011
Ward 2012	Not a systematic review
Whop 2012	Review did not identify any eligible studies involving Aboriginal and/or Torres Strait Islander peoples
Zeitz 2012	Not a systematic review

Appendix 4. Risk of bias assessment for included reviews

Risk of bias assessment: Barlow 2014

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were comprehensively specified and unambiguous (including primary and secondary outcomes), based on pre-specified protocol.
Concerns regarding methods used to identify and/or select studies	Low	The search appears comprehensive and terms used to identify studies were reported. The date range was appropriate; additional methods were used to identify studies. Two authors independently applied the eligibility criteria to studies retrieved from the search (titles/abstracts, full text).
Concerns regarding methods used to collect data and appraise studies	Low	Data extraction was independently performed by two authors. Risk of bias was independently assessed by two authors using Cochrane risk of bias tool. All relevant results were collected and study characteristics were tabulated.
Concerns regarding synthesis and findings	Low	Methods of synthesis were pre-specified (including sensitivity analyses and exploration of heterogeneity). All relevant studies were included in the analysis. Between study variation and biases in primary studies were considered and addressed where they existed.

Describe whether conclusions were supported by the evidence:

Potential biases in the review process were considered (Domains 1 to 4). Findings were explicitly interpreted in relation to relevance. Interpretation of intervention effects appropriately considered direction and magnitude of effect, in addition to statistical significance without inappropriately emphasising only statistically significant findings.		
Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	Y	
Was the relevance of identified studies to the review's research question appropriately considered?	γ	
Did the review authors avoid emphasising results on the basis of their statistical significance?	γ	
Overall risk of bias	Low Risk	

Risk of bias assessment: Bowes 2014

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were comprehensively specified and unambiguous (specific outcomes not reported, but categories were specified). It is unclear whether the criteria were based on a pre-specified protocol.
Concerns regarding methods used to identify and/or select studies	Unclear	The search appears comprehensive and terms used to identify studies among indigenous peoples are reported. The date range was appropriate, and additional methods were used to identify studies (e.g. grey literature). Date restrictions (previous 10 years) appear appropriate for current programs and services. It is unclear how many authors applied the eligibility criteria to studies retrieved from the search (titles/abstracts, full text).
Concerns regarding methods used to collect data and appraise studies	Unclear	Methods of extraction were not reported (i.e. how many authors, whether independent, data checks). Study characteristics were tabulated and provide comprehensive information about participants, interventions and context. NHMRC levels of evidence were assigned to studies, but risk of bias was not assessed. Assessing the level of evidence provides some information about the confidence that can be placed in the findings of a study, but mainly serves to identify study design rather than examining the potential for systematic bias arising from the design and conduct of a study. However, this is a broad overview so the approach may be sufficient to indicate the quality of evidence. Overall, this domain is rated at unclear risk of bias because of incomplete reporting of methods.
Concerns regarding synthesis and findings	Low	There was no quantitative synthesis; results and level of evidence were tabulated on a program-by-program basis. Results were mainly reported qualitatively (e.g. "significant increase"); unclear whether all outcomes or a selection were reported. Variation in findings across studies was considered, without quantitative analyses. While there is no assessment of risk of bias, the level of evidence was considered in the interpretation of findings. Given this is a broad scoping review, the overall synthesis approach seems appropriate.

Describe whether conclusions were supported by the evidence:

Potential biases in the review process were considered to a limited extent (mainly Domains 3). Findings were explicitly interpreted in relation to relevance. Results were mainly interpreted based on statistical significance; however, this was done without inappropriately emphasising statistically significant findings. The review findings appear to be supported by the evidence.

Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	РҮ
Was the relevance of identified studies to the review's research question appropriately considered?	Υ
Did the review authors avoid emphasising results on the basis of their statistical significance?	Υ
Overall risk of bias	Low Risk
Y=yes; PY=probably yes; N=no; PN=probably no; NI=no information	

Risk of bias assessment: Carson 2012

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were comprehensively specified and unambiguous (primary and secondary outcomes), based on a pre-specified protocol.
Concerns regarding methods used to identify and/or select studies	Unclear	The search was comprehensive (Cochrane specialist register) and terms used to identify studies among indigenous peoples were reported. The date range was appropriate, and additional methods were used to identify studies. One author applied the eligibility criteria to studies retrieved from the search (titles/abstracts, full text), thus there is potential that some studies may have been missed.
Concerns regarding methods used to collect data and appraise studies	Low	Data extraction was done by one author and checked by a second. Study characteristics were tabulated and summarised in the text. All relevant results appear to have been collected. Risk of bias was independently assessed by two authors using the Cochrane risk of bias tool.
Concerns regarding synthesis and findings	Low	Methods of synthesis were pre-specified (including sensitivity analyses and exploration of heterogeneity). All relevant studies were included in the analysis. Between study variation and biases in primary studies were considered and addressed where they existed.

Describe whether conclusions were supported by the evidence:

Findings were explicitly interpreted in relation to relevance. Interpretation of intervention effects appropriately considered direction and magnitude of effect, in addition to statistical significance. Potential biases in the review process were considered (Domains 1 to 4), except for single screening of studies for eligibility.

Did the interpretation of findings address all of the concerns	Y
identified in Domains 1 to 4? Was the relevance of identified studies to the review's research	v
question appropriately considered?	
Did the review authors avoid emphasising results on the basis of their statistical significance?	Υ
Overall risk of bias	Low Risk

Risk of bias assessment: Chamberlain 2013

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were comprehensively specified and unambiguous (including primary and secondary outcomes), based on pre-specified protocol.
Concerns regarding methods used to identify and/or select studies	Low	The search appears comprehensive and terms used to identify studies among indigenous peoples are reported. The date range was appropriate, and additional methods used to identify studies. Two authors applied the eligibility criteria to studies retrieved from the search (titles/abstracts, full text).
Concerns regarding methods used to collect data and appraise studies	Low	Data extraction was independently performed by two authors. Risk of bias was independently assessed using Cochrane risk of bias tool by two authors. Study characteristics were tabulated and summarised in the text. All relevant results appear to have been collected.
Concerns regarding synthesis and findings	Low	Methods of synthesis were pre-specified (including sensitivity analyses and exploration of heterogeneity). All relevant studies were included in the analysis. Between study variation and biases in primary studies were considered and addressed where they existed.

Describe whether conclusions were supported by the evidence:

 Findings were explicitly interpreted in relation to relevance. Interpretation of intervention effects appropriately considered direction and magnitude of effect, in addition to statistical significance. Potential biases in the review process were considered (Domains 1 to 4).

 Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?
 Y

 Was the relevance of identified studies to the review's research question appropriately considered?
 Y

 Did the review authors avoid emphasising results on the basis of their statistical significance?
 Y

 Overall risk of bias
 Low Risk

Risk of bias assessment: Chamberlain 2013

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were specified, but the broad scoping nature of the review means the criteria are intentionally inclusive, so specification is minimal with some ambiguity (e.g. outcomes are general as are eligile study designs). It is unclear whether criteria were pre- specified in a protocol.
Concerns regarding methods used to identify and/or select studies	Low	The search appears comprehensive (restricted to databases, which is appropriate for a broad scoping review) and terms used to identify studies among indigenous peoples are reported. The date range was appropriate. Two authors applied the eligibility criteria to abstracts/titles retrieved from the search. One author screened full text; a second author independently reviewed a sub-sample.
Concerns regarding methods used to collect data and appraise studies	Low	Data extraction and risk of bias assessment were done by one author and a subsample by a second. Study characteristics were not reported on a study-by-study basis, but are stated as available on request. Risk of bias was formally assessed using appropriate criteria (specific for each study design), and the quality of evidence across studies was assessed using GRADE and reported.
Concerns regarding synthesis and findings	Low	There was no quantitative synthesis, and results are reported for selected studies only (with minimal reporting of quantitative data). Variation in findings across studies was considered, without quantitative analyses. The quality of evidence was considered in interpreting findings. The synthesis approach was appropriate for a broad scoping review such as this.

Describe whether conclusions were supported by the evidence:

Potential biases in the review process were explicitly and carefully considered (Domains 1 to 4). Findings were explicitly interpreted in relation to relevance. Interpretation of intervention effects appropriately considered direction of effect, without inappropriate emphasis based on statistical significance.

Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	Y
Was the relevance of identified studies to the review's research question appropriately considered?	Υ
Did the review authors avoid emphasising results on the basis of their statistical significance?	Y
Overall risk of bias	Low Risk

Risk of bias assessment: Chou 2013

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were comprehensively specified and unambiguous (including primary and secondary outcomes), but it is unclear whether they were based on a pre-specified protocol.
Concerns regarding methods used to identify and/or select studies	Low	The search appears comprehensive and terms used to identify studies were reported. The date range was appropriate; additional methods were not used to identify studies. Two authors independently applied the eligibility criteria to studies retrieved from the search (unclear if both titles/abstracts and full text).
Concerns regarding methods used to collect data and appraise studies	Low	Data extraction and risk of bias assessment were done by one author and checked by a second. Study characteristics were tabulated and comprehensive. All relevant results appear to have been collected. Risk of bias was independently assessed by two authors using the US Preventive Services Task Force checklist.
Concerns regarding synthesis and findings	Low	There was no quantitative synthesis; study characteristics, results and risk of bias assessment were tabulated on a study-by-study basis. Results were synthesised using an approach similar to GRADE (risk of bias, consistency, applicability, directness, were considered in relation to the body of evidence). Meta- analysis seemed possible but the authors indicated it was not appropriate. Variation in findings across studies was considered, without quantitative analyses.

Describe whether conclusions were supported by the evidence:

Potential biases in the review process were considered (Domains 1 to 4). Findings were explicitly interpreted in relation to relevance. Interpretation of intervention effects appropriately considered direction and magnitude of effect, in addition to statistical significance, without inappropriately emphasising statistically significant findings.		
Did the interpretation of findings address all of the concerns	Y	
identified in Domains 1 to 4?		
Was the relevance of identified studies to the review's research question appropriately considered?	Υ	
Did the review authors avoid emphasising results on the basis of their statistical significance?	Υ	
Overall risk of bias	Low Risk	

Risk of bias assessment: Clifford 2013

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were specified; comparators and study designs were not specified, and outcomes were implicit (e.g. relevant to intervention; no primary outcome). It is unclear whether criteria were pre- specified in a protocol.
Concerns regarding methods used to identify and/or select studies	Low	The search appears comprehensive and terms used to identify studies among indigenous peoples are reported. The date range was appropriate, and additional methods were used to identify studies. Appear to be restricted to English language. One author applied the eligibility criteria to studies retrieved from the search (titles/abstracts, full text); a second author independently screened a subset.
Concerns regarding methods used to collect data and appraise studies	Low	Data extraction was performed by two authors. Risk of bias was assessed by two authors using the Effective Public Health Practice Project Quality Assessment Tool for Quantitative Studies. Unclear if extraction and assessment were done independently.
Concerns regarding synthesis and findings	Low	There was no quantitative synthesis; study characteristics, results and risk of bias assessment were tabulated on a study-by-study basis. Variation in findings across studies was considered, without quantitative analyses.

Describe whether conclusions were supported by the evidence:

 Potential biases in the review process were considered (primarily Domains 2). Findings were explicitly interpreted in relation to relevance. There was minimal reporting of effect estimates (no confidence intervals), and interpretation of intervention effects was largely based on statistical significance, although results supporting the intervention were not overemphasised. This likely reflected available data, but this is not explicitly stated.

 Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?
 Y

 Was the relevance of identified studies to the review's research question appropriately considered?
 Y

 Did the review authors avoid emphasising results on the basis of their statistical significance?
 Y

 Overall risk of bias
 Low Risk

Risk of bias assessment: Clifford 2015

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were specified; comparators and study designs were not specified, and outcomes were implicit (e.g. relevant to intervention; no primary outcome). It is unclear whether criteria were pre- specified in a protocol.
Concerns regarding methods used to identify and/or select studies	Low	The search appears comprehensive and terms used to identify studies among indigenous peoples are reported. The date range was appropriate, and additional methods were used to identify studies. Two authors applied the eligibility criteria to studies retrieved from the search (titles/abstracts, full text). Not explicitly stated as independent.
Concerns regarding methods used to collect data and appraise studies	Low	Data extraction was performed by two authors. Risk of bias was assessed by two authors using the Effective Public Health Practice Project Quality Assessment Tool for Quantitative Studies. Unclear if extraction and assessment were done independently.
Concerns regarding synthesis and findings	Low	There was no quantitative synthesis; study characteristics, results and risk of bias assessment were tabulated on a study-by-study basis. Variation in findings across studies was considered, without quantitative analyses.

Describe whether conclusions were supported by the evidence:

Potential biases in the review process were considered (primarily Domains 2). Findings were explicitly interpreted in relation to relevance. There was minimal reporting of effect estimates (no confidence intervals), and interpretation of intervention effects was largely based on statistical significance, although results supporting the intervention were not overemphasised. This likely reflected available data, but this is not explicitly stated.

Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	Y
Was the relevance of identified studies to the review's research question appropriately considered?	Y
Did the review authors avoid emphasising results on the basis of their statistical significance?	Y
Overall risk of bias	Low Risk

Risk of bias assessment: Day 2013

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were specified; comparators and study designs were not specified, and outcomes were implicit (e.g. relevant to intervention; no primary outcome). It is unclear whether criteria were pre- specified in a protocol.
Concerns regarding methods used to identify and/or select studies	Unclear	The search appears comprehensive and terms used to identify studies among indigenous peoples are reported. The date range was appropriate; additional methods appear not to have been used to identify studies. It is not stated how many authors applied the eligibility criteria to studies retrieved from the search (titles/abstracts, full text). For this reason, this domain was assessed as at unclear risk of bias.
Concerns regarding methods used to collect data and appraise studies	Unclear	Methods of data extraction were not reported (i.e. how many authors, whether independent, data checking). Brief study characteristics were tabulated (design, program, appraisal score) for most included programs; three programs were described in more detail in text. Risk of bias was assessed using the Maryland Scientific Methods Scale, but it is unclear if assessment was done by more than one author. This domain was assessed as at unclear risk of bias because of the incomplete reporting of methods.
Concerns regarding synthesis and findings	High	There was no quantitative synthesis. Variation in findings across studies was considered, without quantitative analyses. Biases in primary studies were considered in the summary of results. Results were summarised in the text for the three programs rated as having the highest quality evidence. There is no information indicating whether this was an a priori decision; such a statement is needed to confirm that decisions regarding which studies to report were not influenced by study findings. Consequently, this domain was assessed as at high risk of bias.

Describe whether conclusions were supported by the evidence:

Potential biases in the review process were considered (mainly domains 2 and 4). Findings were explicitly interpreted in relation to relevance. The basis on which intervention effects were interpreted is unclear (no effect estimates or statements about statistical significance were reported), but there is no indication that results were emphasised on the basis of statistical significance. However, the conclusions of the review were cautious and reflected the quality of the evidence, so the review was assessed as at low risk of bias.

Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	РҮ
Was the relevance of identified studies to the review's research question appropriately considered?	Y
Did the review authors avoid emphasising results on the basis of their statistical significance?	РҮ
Overall risk of bias	Low Risk

Risk of bias assessment: Ejere 2015

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were comprehensively specified and unambiguous (including outcomes; primary not specified), based on pre-specified protocol.
Concerns regarding methods used to identify and/or select studies	Low	The search appears comprehensive and terms used to identify studies were reported. The date range was appropriate; additional methods were used to identify studies. Two authors independently applied the eligibility criteria to studies retrieved from the search (titles/abstracts, full text).
Concerns regarding methods used to collect data and appraise studies	Low	Data extraction was independently performed by two authors. Study characteristics were reported in the text and tables. Risk of bias was independently assessed by two authors using Cochrane risk of bias tool.
Concerns regarding synthesis and findings	Low	Methods of synthesis were pre-specified (including sensitivity analyses and exploration of heterogeneity). No meta-analysis or other quantitative analyses were done because only two trials were identified. Biases in primary studies were considered and addressed where they existed.

Describe whether conclusions were supported by the evidence:

 Potential biases in the review process were considered (Domains 1 to 4). Findings were explicitly interpreted in relation to

 relevance. Interpretation of intervention effects appropriately considered direction and magnitude of effect, in addition to

 statistical significance, without inappropriately emphasising statistically significant findings.

 Did the interpretation of findings address all of the concerns
 Y

 identified in Domains 1 to 4?
 Y

 Was the relevance of identified studies to the review's research
 Y

 question appropriately considered?
 Y

 Did the review authors avoid emphasising results on the basis of
 Y

 their statistical significance?
 Overall risk of bias
 Low Risk

Risk of bias assessment: Farley 2014

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were comprehensively specified and unambiguous (including primary and secondary outcomes), based on pre-specified protocol.
Concerns regarding methods used to identify and/or select studies	Low	The search appears comprehensive and terms used to identify studies were reported. The date range was appropriate; additional methods were used to identify studies. Two authors independently applied the eligibility criteria to studies retrieved from the search (titles/abstracts, full text).
Concerns regarding methods used to collect data and appraise studies	Low	Data extraction was independently performed by two authors. Study characteristics were reported in the text and tables. Risk of bias was independently assessed by two authors using Cochrane risk of bias tool.
Concerns regarding synthesis and findings	Low	Methods of synthesis were pre-specified (including sensitivity analyses and exploration of heterogeneity). All relevant studies were included in the analysis. Between study variation and biases in primary studies were considered and addressed where they existed.

Describe whether conclusions were supported by the evidence:

 Potential biases in the review process were considered (mainly Domains 2 and 4). Findings were explicitly interpreted in relation to relevance. Interpretation of intervention effects appropriately considered direction and magnitude of effect, in addition to statistical significance, without inappropriately emphasising statistically significant findings.

 Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?
 PY

 Was the relevance of identified studies to the review's research question appropriately considered?
 Y

 Did the review authors avoid emphasising results on the basis of Y their statistical significance?
 Y

 Overall risk of bias
 Low Risk

Risk of bias assessment: Gao 2014

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were comprehensively specified and unambiguous (including primary and secondary outcomes), but it is unclear whether they were based on a pre-specified protocol.
Concerns regarding methods used to identify and/or select studies	Low	The search appears comprehensive and terms used to identify studies were reported. The date range was appropriate; additional methods were used to identify studies (reference lists only). Two authors independently applied the eligibility criteria to studies retrieved from the search (titles/abstracts, full text).
Concerns regarding methods used to collect data and appraise studies	Low	Data extraction was independently performed by two authors. Study characteristics were reported in the text and tables. Risk of bias was independently assessed by two authors using the Jadad system, with assessment reported for each domain (not just overall score).
Concerns regarding synthesis and findings	Low	Methods of synthesis were pre-specified (including sensitivity analyses and exploration of heterogeneity). All relevant studies were included in the analysis. Between study variation and biases in primary studies were considered and addressed where they existed.

Describe whether conclusions were supported by the evidence:

Potential biases in the review process were considered (Domains 1 to 4). relevance. Interpretation of intervention effects appropriately considered statistical significance, without inappropriately emphasising statistically such as the statistical significance.	d direction and magnitude of effect, in addition to
Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	Y
Was the relevance of identified studies to the review's research question appropriately considered?	Υ
Did the review authors avoid emphasising results on the basis of their statistical significance?	Υ
Overall risk of bias	Low Risk

Risk of bias assessment: Gould 2013

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were specified; comparators were not specified. Any design with quantitative outcomes was eligible. Example outcomes were listed; no primary outcome specified. It is unclear whether criteria were pre-specified in a protocol.
Concerns regarding methods used to identify and/or select studies	Low	The search appears comprehensive (but no grey literature and English language only), and terms used to identify studies were reported. The date range was appropriate; additional methods were not used to identify studies. Two authors independently applied the eligibility criteria to studies retrieved from the search (titles/abstracts, full text).
Concerns regarding methods used to collect data and appraise studies	Low	Data extraction and risk of bias assessment were done by one author and checked by a second. Study characteristics were reported in the text and tables. Risk of bias was assessed using the Scottish Intercollegiate Guidelines Network (SIGN) checklists.
Concerns regarding synthesis and findings	High	There was no quantitative synthesis. Results and risk of bias (quality) assessments were tabulated on a study-by- study basis. Study quality was summarised in a stand- alone section of the text, but could have been better integrated when interpreting results (e.g. in discussion, conclusions or abstract). Variation in findings across studies was considered, without quantitative analyses.

Describe whether conclusions were supported by the evidence:

There was minimal consideration of potential biases in the review process (Domains 1 to 4). The potential risk of bias in included studies was assessed, and considered to a limited extent when interpreting results. Findings were explicitly interpreted in relation to relevance. There was minimal reporting of effect estimates (no confidence intervals), and interpretation of intervention effects was largely based on statistical significance, although this was done without inappropriately emphasising statistically significant findings.

Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	РҮ
Was the relevance of identified studies to the review's research question appropriately considered?	Y
Did the review authors avoid emphasising results on the basis of their statistical significance?	PY
Overall risk of bias	Low Risk

Risk of bias assessment: Guy 2012

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were clearly stated (including specification of primary and other outcomes). Unclear whether the stated criteria were pre-specified.
Concerns regarding methods used to identify and/or select studies	Low	The search appears comprehensive and terms used to identify studies among indigenous peoples are reported. The date range was appropriate, and additional methods were used to identify studies (e.g. author contact, grey literature searching, reference lists). Studies retrieved were 'reviewed' by two authors. It is unclear whether this means both authors applied the eligibility criteria to studies retrieved from the search (titles/abstracts, full text). We assumed this to be the case.
Concerns regarding methods used to collect data and appraise studies	High	Data extraction was independently performed by two authors. Risk of bias was not formally assessed. The absence of such an assessment means the findings from the included studies are at unclear risk of bias, and therefore the confidence that can be placed in the findings of an individual study cannot be reflected using accepted criteria when reporting or interpreting results.
Concerns regarding synthesis and findings	Low	There was no meta-analysis; study characteristics and results were tabulated or graphed on a program-by- program basis. Variation in findings across studies was considered, without quantitative analyses. Risk of bias in included studies was not assessed, although the methodological limitations of the available data were considered in relation to the analyses and findings. For this reason, this domain was rated as being at low risk of bias.

Describe whether conclusions were supported by the evidence:

Potential biases in the review process were comprehensively considered (Primarily Domains 2 to 4), but there was no mention of the implications of not assessing risk of bias in the included studies. The methodological limitations of the available data were considered in the discussion, but these caveats were not stated when reporting findings in the abstract. Findings were explicitly interpreted in relation to relevance. The authors reported effect estimates (no confidence intervals) and statistical significance where available in the original study, without inappropriate emphasis of results based on statistical significance. This review was rated at high risk of bias because of the absence of a systematic assessment of the potential biases in individual studies, or a clear statement about the implications of not including such an assessment.

Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	PN
Was the relevance of identified studies to the review's research question appropriately considered?	Y
Did the review authors avoid emphasising results on the basis of their statistical significance?	Y
Overall risk of bias	High Risk

Risk of bias assessment: Harlow 2014

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were stated briefly; comparators and study designs not specified, and outcomes were implicit (e.g. relevant to intervention; no primary outcome). It is unclear whether criteria were pre- specified in a protocol.
Concerns regarding methods used to identify and/or select studies	Unclear	The search covered two databases; additional methods were not used to identify studies and the review was restricted to peer-reviewed published studies. Terms used to identify studies were reported, including those used to identify studies among indigenous peoples. The date range was appropriate. There is no information how many authors applied the eligibility criteria to studies retrieved from the search (titles/abstracts, full text). Overall, this domain was rated as at unclear risk of bias because of incomplete reporting of screening methods and the resulting potential to miss studies.
Concerns regarding methods used to collect data and appraise studies	High	Methods of extraction were not reported (i.e. how many authors, whether independent, data checking). Risk of bias was not assessed (study design was reported). The absence of such assessment means the findings from the included studies are at unclear risk of bias, and therefore the confidence that can be placed in the findings of an individual study cannot be reflected when reporting or interpreting results. Consequently, this domain was rated as at high risk of bias.
Concerns regarding synthesis and findings	High	There was no quantitative synthesis; study characteristics and results were tabulated on a study-by- study basis. Variation in findings across studies was considered, without quantitative analyses. Risk of bias in included studies was not assessed, so the authors were unable to account for the impact of potential biases when reporting and interpreting study-level or overall findings. For this reason, this domain was rated as being at high risk of bias.

Describe whether conclusions were supported by the evidence:

There was minimal consideration of potential biases in the review process (Domains 1 to 4), although the limitations of the study designs used in the included studies were clearly stated in relation to the findings. Findings were explicitly interpreted in relation to relevance. There was no reporting of effect estimates (no confidence intervals) or statements about statistical significance, and the basis on which intervention effects were interpreted was not reported. This review was assessed as at high risk of bias because of concerns across multiple domains.

Overall risk of bias	High Risk
Did the review authors avoid emphasising results on the basis of their statistical significance?	РҮ
Was the relevance of identified studies to the review's research question appropriately considered?	РҮ
Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	PN

Risk of bias assessment: Hunt 2013

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were comprehensively specified and unambiguous (including primary and secondary outcomes), based on pre-specified protocol.
Concerns regarding methods used to identify and/or select studies	Low	The search appears comprehensive and terms used to identify studies were reported. The date range was appropriate; additional methods were used to identify studies. One author screened abstracts; two authors independently applied the eligibility criteria to full text studies (46 studies).
Concerns regarding methods used to collect data and appraise studies	Low	Data extraction was independently performed by two authors. Study characteristics were reported in the text and tables. Risk of bias was assessed by one author using Cochrane risk of bias tool.
Concerns regarding synthesis and findings	Low	Methods of synthesis were pre-specified (including sensitivity analyses and exploration of heterogeneity). All relevant studies were included in the analysis. Between study variation and biases in primary studies were considered and addressed where they existed.

Describe whether conclusions were supported by the evidence:

 Potential biases in the review process were considered (mainly Domains 2 and 4). Findings were explicitly interpreted in relation to relevance. Interpretation of intervention effects appropriately considered direction and magnitude of effect, in addition to statistical significance, without inappropriately emphasising statistically significant findings.

 Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?
 Y

 Was the relevance of identified studies to the review's research question appropriately considered?
 Y

 Did the review authors avoid emphasising results on the basis of the review authors avoid emphasising results on the basis of the review for the review?
 Y

 Overall risk of bias
 Low Risk

Risk of bias assessment: Jongen 2014

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were comprehensively specified and unambiguous (outcomes deliberately broad), but unclear if based on pre-specified protocol.
Concerns regarding methods used to identify and/or select studies	Unclear	The search appears comprehensive and terms used to identify studies among indigenous peoples are reported. The date range was appropriate, and additional methods were used to identify studies. It is unclear how many authors applied the eligibility criteria to studies retrieved from the search (titles/abstracts, full text). For this reason, this domain was rated as at unclear risk of bias.
Concerns regarding methods used to collect data and appraise studies	Low	Data extraction was independently performed by two authors. Study characteristics were reported in the text and tables. Risk of bias was independently assessed by two authors using Effective Public Health Practice Project (EPHPP) Quality Assessment Tool.
Concerns regarding synthesis and findings	High	There was no meta-analysis which was justifiable. Study characteristics, results and risk of bias assessment were tabulated on a study-by-study basis and reported in text. Variation in findings across studies was considered, without quantitative analyses. Results were summarised in the text using vote counting; it was unclear whether an appropriate method of vote counting was used (i.e. based on direction of effect rather than statistical significance). For this reason, the synthesis was assessed as at high risk of bias, although the findings are interpreted cautiously.

Describe whether conclusions were supported by the evidence:

Potential biases in the review process were considered (Domains 1 to 4). Findings were explicitly interpreted in relation to relevance. Effect estimates (and confidence intervals) were not reported, possibly due to available data. Interpretation of intervention effects is based on vote counting, the method for which is (direction of effect, statistical significance) is not reported, so it is unclear whether statistically significant findings were emphasised. However, the overall interpretation of findings is appropriately cautious, so the review was assessed at low risk of bias.

Overall risk of bias	Low Risk
Did the review authors avoid emphasising results on the basis of their statistical significance?	PY
Was the relevance of identified studies to the review's research question appropriately considered?	Y
Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	Y

Risk of bias assessment: Kristjansson 2015

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were comprehensively specified and unambiguous (including primary and secondary outcomes), based on pre-specified protocol.
Concerns regarding methods used to identify and/or select studies	Low	The search appears comprehensive and terms used to identify studies were reported. The date range was appropriate; additional methods were used to identify studies (including grey literature). Two authors applied the eligibility criteria to studies retrieved from the search (titles/abstracts, full text).
Concerns regarding methods used to collect data and appraise studies	Low	Data extraction was independently performed by two authors. Study characteristics were reported in tables and text. Risk of bias was independently assessed by two authors using the Cochrane risk of bias tool.
Concerns regarding synthesis and findings	Low	Methods of synthesis were pre-specified (including sensitivity analyses and exploration of heterogeneity). All relevant studies were included in the analysis. Between study variation and biases in primary studies were considered and addressed where they existed.

Describe whether conclusions were supported by the evidence:

The conclusions of the review appear fully supported by the evidence. Potential biases in the review process were considered (Domains 1 to 4). Findings were explicitly interpreted in relation to relevance. Interpretation of intervention effects appropriately considered direction and magnitude of effect, in addition to statistical significance. Did the interpretation of findings address all of the concerns identified in Domains 1 to 4? Was the relevance of identified studies to the review's research question appropriately considered? Did the review authors avoid emphasising results on the basis of their statistical significance?

Overall risk of bias Low Risk

Risk of bias assessment: Lee 2013

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were specified and reasonably unambiguous (e.g. any quantitative evaluation; primary outcome was implicit). It is unclear whether criteria were pre-specified in a protocol.
Concerns regarding methods used to identify and/or select studies	Low	The search appears comprehensive and terms used to identify studies were reported. The date range was appropriate; the use of additional methods to identify studies was not reported and unclear if grey literature searched for. Two authors independently applied the eligibility criteria to studies retrieved from the search, but unclear if this applies to both titles/abstracts and full text.
Concerns regarding methods used to collect data and appraise studies	High	Data extraction was done by one author and checked by a second. Study characteristics were reported in tables and text. The authors evaluated study quality using their own criteria; these did not include key domains of widely used risk of bias assessment tools. The absence of such an assessment means the findings from the included studies are at unclear risk of bias, and therefore the confidence that can be placed in the findings of an individual study cannot be fully reflected when reporting or interpreting results. For this reason, this domain was rated as at high risk of bias.
Concerns regarding synthesis and findings	High	There was no quantitative synthesis; study characteristics and results were tabulated on a study-by- study basis. Variation in findings across studies was not discussed. Risk of bias in included studies was not appropriately assessed, although the methodological quality of the included studies was considered and findings reported with appropriate caveats. This meant the impact of potential biases on study-level and overall findings were addressed to a limited extent.

Describe whether conclusions were supported by the evidence:

Potential biases in the review process were considered (primarily Domains 2), although the absence of formal assessment of risk of bias in individual studies was not addressed. Findings were explicitly interpreted in relation to relevance. There was minimal reporting of effect estimates (no confidence intervals), and the basis on which intervention effects were interpreted is unclear (possibly statistical significance). However, the overall conclusions were cautious and carefully noted methodological limitations of studies. For this reason the review was assessed as at low risk of bias.

Overall risk of bias	Low Risk
Did the review authors avoid emphasising results on the basis of their statistical significance?	Y
Was the relevance of identified studies to the review's research question appropriately considered?	Y
Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	PN

Risk of bias assessment: MacLean 2012

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were specified and unambiguous (primary and secondary outcomes not stated, but the reported that these were specified), and were based on a pre-specified in a protocol.
Concerns regarding methods used to identify and/or select studies	Unclear	The search appears comprehensive and terms used to identify studies were reported. The date range was appropriate; additional methods were used to identify studies (including grey literature). The number of authors who applied the eligibility criteria to studies retrieved from the search is not reported. For this reason, this domain was rated as at unclear risk of bias.
Concerns regarding methods used to collect data and appraise studies	High	The data to be extracted were not listed, nor were methods of extraction explicitly reported (i.e. how many authors, whether independent, data checking). However, the authors mention inter-rater reliability, suggesting that there was more than one data extractor. Study characteristics were reported in text and tables. It is unclear whether risk of bias was assessed and, if so, what criteria were used. The authors state that "Quality assessment tools were developed to support the review of each included study" but only report the study design (e.g. descriptive case series), not potential biases related to specific aspects of study design and conduct.
Concerns regarding synthesis and findings	Low	There was no quantitative synthesis; study characteristics and results were tabulated on a study-by- study basis. Variation in findings across studies was not considered. It was unclear whether risk of bias in included studies was assessed, although the methodological limitations of the included studies were considered in the discussion. This meant the impact of potential biases on study-level and overall findings, was addressed to a limited extent. This domain was rated as being at low risk of bias on the basis of this informal assessment.

Describe whether conclusions were supported by the evidence:

There was minimal consideration of potential biases in the review process (Domains 1 to 4). The methodological limitations of included studies were discussed, but this was not based on systematic assessment of risk of bias. Findings were explicitly interpreted in relation to relevance. There was minimal reporting of effect estimates (no confidence intervals), and interpretation of intervention effects was largely based on statistical significance. This likely reflected available data, but this is not explicitly stated. Overall, the conclusions were cautious and with appropriate caveats about the quality of available evidence. For this reason the review was assessed as at low risk of bias.

Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	PY
Was the relevance of identified studies to the review's research question appropriately considered?	γ
Did the review authors avoid emphasising results on the basis of their statistical significance?	Y
Overall risk of bias	Low Risk

Risk of bias assessment: McCalman 2014

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were clearly specified and unambiguous (comparator and outcomes were not stated), based on pre-specified protocol. Date restrictions were appropriate (reflecting tools likely to be in current use).
Concerns regarding methods used to identify and/or select studies	Unclear	The search appears comprehensive and terms used to identify studies among indigenous peoples are fully reported. Additional methods were used to identify studies (including grey literature). The number of authors who applied the eligibility criteria to titles/abstracts retrieved from the search was not explicitly reported. One author screened the full text. For this reason, this domain was rated as at unclear risk of bias.
Concerns regarding methods used to collect data and appraise studies	Low	Information about data extracted was reported. The authors mention inter-rater reliability, suggesting independent extraction by multiple authors, but this is not explicit. Study characteristics were reported in text and tables. Risk of bias was assessed independently by two authors using Effective Public Health Practice Project (EPHPP) tool.
Concerns regarding synthesis and findings	Low	There was no quantitative synthesis and very few effect estimates reported; study characteristics, results and risk of bias assessment were tabulated on a study-by- study basis. Results were summarised using vote counting, but the basis on which this was done was unclear (direction of effect or statistical significance). Variation in findings across studies was considered, without quantitative analyses.

Describe whether conclusions were supported by the evidence:

Potential biases in the review process were considered (primarily Domains 2). Findings were explicitly interpreted in relation to relevance. There was minimal reporting of effect estimates (no confidence intervals), and interpretation of intervention effects appears largely based on statistical significance, although size of effect was considered and statistically significant findings were not emphasised. This likely reflected available data, but this is not explicitly stated.

Overall risk of bias	Low Risk
Did the review authors avoid emphasising results on the basis of their statistical significance?	Y
Was the relevance of identified studies to the review's research question appropriately considered?	Y
Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	РҮ

Risk of bias assessment: Olsen 2013

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were specified, but the broad scoping nature of the review means the criteria are intentionally inclusive, so specification is minimal with some ambiguity (e.g. outcomes are general as are eligible study designs). It is unclear whether criteria were pre-specified in a protocol.
Concerns regarding methods used to identify and/or select studies	Unclear	The search appears comprehensive and terms used to identify studies among indigenous peoples are reported. The date range was appropriate, and additional methods were used to identify studies. It is unclear how many authors applied the eligibility criteria to studies retrieved from the search (titles/abstracts, full text). For this reason, this domain was rated as at unclear risk of bias.
Concerns regarding methods used to collect data and appraise studies	High	No information is provided about methods of data extraction (i.e. how many authors, whether independent, data checking). Studies are listed in a table, and characteristics are summarised in text. Risk of bias or quality of the evidence was not assessed. The absence of such assessment means the findings from the included studies are at unclear risk of bias, and therefore the confidence that can be placed in the findings cannot be reflected when reporting or interpreting results.
Concerns regarding synthesis and findings	High	There was no quantitative synthesis; results are reported study-by-study. This is consistent with the broad scoping nature of the review. Risk of bias of individual studies or the overall quality of evidence was not assessed, and was not reflected in the interpretation of results or in the review findings. For this reason, this domain was rated as at high risk of bias.

Describe whether conclusions were supported by the evidence:

There was minimal consideration of potential biases in the review process (Domains 1 to 4). Findings were explicitly interpreted in relation to relevance. The basis for interpreting results is unclear, so there is no information from which to assess whether statistically significant results were emphasised. For these reasons, and because the quality or potential biases of the included studies was not considered, the review was assessed as at high risk of bias.

Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	PN
Was the relevance of identified studies to the review's research question appropriately considered?	Y
Did the review authors avoid emphasising results on the basis of their statistical significance?	NI
Overall risk of bias	High Risk

Risk of bias assessment: Passey 2014

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were stated briefly, without definition. No primary or secondary outcomes were specified (implicit only). Unclear whether the stated criteria were pre-specified protocol.
Concerns regarding methods used to identify and/or select studies	Unclear	The search covered three databases with checks of reference lists (unclear if grey literature considered). Search terms used to identify studies were not reported (described as: "appropriate terms"). The number of authors who applied the eligibility criteria to studies retrieved from the search is not reported. This domain was assessed as at unclear risk of bias because of the incomplete reporting of methods.
Concerns regarding methods used to collect data and appraise studies	High	No information is provided about methods of data extraction (i.e. how many authors, whether independent, data checking). Characteristics and results of studies were not reported in text or tables. Risk of bias was assessed using the Cochrane risk of bias tool and results tabulated. It is unclear how many authors assessed risk of bias. This domain was assessed as at high risk of bias because the characteristics of included studies were not reported, except for the risk of bias.
Concerns regarding synthesis and findings	High	There was no quantitative synthesis. Reporting of results is restricted to a single statement that "Both studies found no treatment effect", without estimates or qualitative description of intervention effects. Biases in primary studies were clearly reported and considered. This domain was rated as at high risk of bias because no study level or pooled data were reported.

Describe whether conclusions were supported by the evidence:

There is scant description of methods and results of this review, making it difficult to assess the risk of bias related to Domains 1 to 4, and minimal consideration of potential biases arising from the review process. Findings were explicitly interpreted in relation to relevance. The review was assessed as at high risk of bias, because conclusions were drawn without reporting characteristics or results of the included studies.

Overall risk of bias	High Risk
Did the review authors avoid emphasising results on the basis of their statistical significance?	NI
Was the relevance of identified studies to the review's research question appropriately considered?	Y
Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	PN

Risk of bias assessment: Schofield 2014

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were stated briefly. Outcomes were not pre-specified (no primary outcome specified). Unclear whether the stated criteria were pre-specified protocol.
Concerns regarding methods used to identify and/or select studies	Unclear	The search appears comprehensive and terms used to identify studies were reported. Additional methods were used to identify studies. Date range (previous 8 years) was narrow, but may reflect focus on current models of care. It is unclear how many authors applied the eligibility criteria to studies retrieved from the search (titles/abstracts, full text). For this reason, this domain was assessed as at unclear risk of bias.
Concerns regarding methods used to collect data and appraise studies	High	The data extracted were listed, but methods of extraction were not reported (i.e. how many authors, whether independent, data checking). Study characteristics and level of evidence were tabulated. NHMRC levels of evidence were assigned to studies, but risk of bias was not assessed. Assessing the level of evidence provides some information about the confidence that can be placed in the findings of an individual study, but identifies the study design without examining the potential for systematic bias arising from the design and conduct of a study. For this reason, this domain was rated as at high risk of bias.
Concerns regarding synthesis and findings	Low	There was no quantitative synthesis; results were tabulated on a study-by-study basis. There is very little summary or interpretation of results in the text, with the exception of vote counting in the abstract. The vote counting method was not reported, so it is unclear whether an appropriate method was used (i.e. direction of effect rather than statistical significance). Variation in findings across studies was not considered.

Describe whether conclusions were supported by the evidence:

There was minimal consideration of potential biases in the review process, and the implications of not assessing risk of bias were not discussed. The relevance of the evidence was addressed, noting the absence of evidence. Results relating to intervention effects are tabulated but not reported in the text. In the abstract, intervention effects are summarised by vote counting (method not reported). Although there was no systematic assessment of risk of bias, the quality of evidence was the focus of the review and results reported with appropriate caveats. For this reason, the review was assessed as at low risk of bias.

Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	РҮ
Was the relevance of identified studies to the review's research question appropriately considered?	РҮ
Did the review authors avoid emphasising results on the basis of their statistical significance?	Y
Overall risk of bias	Low Risk

Risk of bias assessment: van Zon 2012

Summary of assessment for each domain

Concerns regarding specification of study eligibility criteria	Low	Study eligibility criteria were comprehensively specified and unambiguous (including primary and secondary outcomes), based on pre-specified protocol.
Concerns regarding methods used to identify and/or select studies	Low	The search appears comprehensive and terms used to identify studies were reported. The date range was appropriate; additional methods were/were not used to identify studies. One author applied the eligibility criteria to titles/abstracts of studies retrieved from the search; two authors screened full text.
Concerns regarding methods used to collect data and appraise studies	Low	Data extraction was independently performed by two authors. Risk of bias was independently assessed by two authors using Cochrane risk of bias tool. Study characteristics were comprehensively tabulated and summarised in the text.
Concerns regarding synthesis and findings	Low	Methods of synthesis were pre-specified (excluding sensitivity analyses). All relevant studies were included in the analysis. Between study variation and biases in primary studies were considered and addressed where they existed.

Describe whether conclusions were supported by the evidence:

 Potential biases in the review process were considered (Domains 1 to 4). Findings were explicitly interpreted in relation to relevance. Interpretation of intervention effects appropriately considered direction and magnitude of effect, in addition to statistical significance, without inappropriately emphasising statistically significant findings.

 Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?
 Y

 Was the relevance of identified studies to the review's research question appropriately considered?
 Y

 Did the review authors avoid emphasising results on the basis of their statistical significance?
 Y

 Overall risk of bias
 Low Risk

Appendix 5. Trials not yet included in a systematic review

Cardiovascular health, diabetes (2 trials)

- 1. McDermott RA, Schmidt B, Preece C, Owens V, Taylor S, Li M, et al. Community health workers improve diabetes care in remote Australian Indigenous communities: results of a pragmatic cluster randomized controlled trial. BMC Health Services Research. 2015;15:68.
- 2. Patel A, Cass A, Peiris D, Usherwood T, Brown A, Jan S, et al. A pragmatic randomized trial of a polypill-based strategy to improve use of indicated preventive treatments in people at high cardiovascular disease risk. European Journal of Preventive Cardiology. 2014 [Epub 2014/03/27].

Communicable disease (4 trials)

- 3. Bowen AC, Tong SYC, Andrews RM, O'Meara IM, McDonald MI, Chatfield MD, et al. Short-course oral co-trimoxazole versus intramuscular benzathine benzylpenicillin for impetigo in a highly endemic region: an open-label, randomised, controlled, non-inferiority trial. Lancet. 2014;384(9960):2132-40.
- 4. Douglas RM, Hansman D, McDonald B, Paton J, Kirke K. Pneumococcal vaccine in aboriginal children--a randomized controlled trial involving 60 children. Community Health Studies. 1986;10(2):189-96.
- Tong SY, Andrews RM, Kearns T, Gundjirryirr R, McDonald MI, Currie BJ, et al. Trimethopimsulfamethoxazole compared with benzathine penicillin for treatment of impetigo in Aboriginal children: a pilot randomised controlled trial. Journal of Paediatrics and Child Health. 2010;46(3):131-3.
- 6. Ward J, Guy R, Garton L, Silver B, Taylor-Thomson D, Hengel B, et al. Addressing endemic rates of STI in remote aboriginal communities in Australia using quality improvement as a key strategy: the STRIVE study. Sexually Transmitted Infections. 2013;89(Suppl 1):A371-A2.

Ear health (6 trials)

- 7. Barker RN, Thomas DP. A practical intervention to address ear and lung disease in Aboriginal primary school children of central Australia. Journal of Paediatrics and Child Health. 1994;30(2):155-9.
- 8. Couzos S, Lea T, Mueller R, Murray R, Culbong M. Effectiveness of ototopical antibiotics for chronic suppurative otitis media in Aboriginal children: a community-based, multicentre, double-blind randomised controlled trial. Medical Journal of Australia. 2003;179(4):185-90.
- 9. Gibson PG, Stuart JE, Wlodarczyk J, Olson LG, Hensley MJ. Nasal inflammation and chronic ear disease in Australian Aboriginal children. Journal of Paediatrics and Child Health. 1996;32(2):143-7.
- 10. Leach A, Wood Y, Gadil E, Stubbs E, Morris P. Topical ciprofloxin versus topical framycetin-gramicidindexamethasone in Australian aboriginal children with recently treated chronic suppurative otitis media: a randomized controlled trial. The Pediatric Infectious Disease Journal. 2008;27(8):692-8.
- 11. Phillips JH, Wigger C, Beissbarth J, McCallum GB, Leach A, Morris PS. Can mobile phone multimedia messages and text messages improve clinic attendance for Aboriginal children with chronic otitis media? A randomised controlled trial. Journal of Paediatrics and Child Health. 2014;50(5):362-7.
- 12. Stephen AT, Leach AJ, Morris PS. Impact of swimming on chronic suppurative otitis media in Aboriginal children: a randomised controlled trial. Medical Journal of Australia. 2013;199(1):51-5.

Health promotion, well-being (2 trials)

13. Calver J, Wiltshire A, Holman CD, Hunter E, Garfield C, Rosman DL. Does health assessment improve health outcomes in indigenous people? An RCT with 13 years of follow-up. Australian and New Zealand Journal of Public Health. 2005;29(2):107-11.

14. Hunter K, Keay L, Clapham K, Lyford M, Brown J, Bilston L, et al. Buckle up safely (shoalhaven): a process and impact evaluation of a pragmatic, multifaceted preschool-based pilot program to increase correct use of age-appropriate child restraints. Traffic Injury Prevention. 2014;15(5):483-90.

Oral health (2 trials)

- 15. Divaris K, Preisser JS, Slade GD. Surface-specific efficacy of fluoride varnish in caries prevention in the primary dentition: results of a community randomized clinical trial. Caries Research. 2013;47(1):78-87.
- 16. Kapellas K, Do LG, Mark Bartold P, Skilton MR, Maple-Brown LJ, O'Dea K. Effects of full-mouth scaling on the periodontal health of Indigenous Australians: a randomized controlled trial. Journal of Clinical Periodontology. 2013;40(11):1016-24.

Physical activity, nutrition (10 trials)

- 17. Brand JC, Miller JJ, Vorbach EA, Edwards RA. A trial of lactose hydrolysed milk in Australian Aboriginal children. Medical Journal of Australia. 1977;2(Suppl 4):10-3.
- 18. Brewster DR, Kruske SG, Ruben AR. An iron treatment trial of anaemia in an aboriginal community. Journal of Pediatric Gastroenterology and Nutrition. 1998;27(2):246.
- 19. Canuto K, Cargo M, Li M, D'Onise K, Esterman A, McDermott R. Pragmatic randomised trial of a 12week exercise and nutrition program for Aboriginal and Torres Strait Islander women: clinical results immediate post and 3 months follow-up. BMC Public Health. 2012;12:933.
- 20. Jose DG, Ford GW. Therapy with parent's lymphocyte transfer factor in children with infection and malnutrition. Lancet. 1976;1(7954):263-6.
- 21. Kruske SG, Ruben AR, Brewster DR. An iron treatment trial in an aboriginal community: improving non-adherence. Journal of Paediatrics and Child Health. 1999;35(2):153-8.
- 22. Kukuruzovic RH, Brewster DR. Milk formulas in acute gastroenteritis and malnutrition: a randomized trial. Journal of Paediatrics and Child Health. 2002;38(6):571-7.
- 23. McGarrigle J, Nelson A. Evaluating a school skills programme for Australian indigenous children: a pilot study. Occupational Therapy International. 2006;13(1):1-20.
- 24. Mitchell JD, Brand J, Halbisch J. Weight-gain inhibition by lactose in Australian Aboriginal children. A controlled trial of normal and lactose hydrolysed milk. Lancet. 1977;1(8010):500-2.
- 25. Reynoldson JA, Behnke JM, Pallant LJ, Macnish MG, Gilbert F, Giles S, et al. Failure of pyrantel in treatment of human hookworm infections (Ancylostoma duodenale) in the Kimberley region of north west Australia. Acta Tropica. 1997;68(3):301-12.
- 26. Valery PC, Torzillo PJ, Boyce NC, White AV, Stewart PA, Wheaton GR, et al. Zinc and vitamin A supplementation in Australian Indigenous children with acute diarrhoea: a randomised controlled trial. Medical Journal of Australia. 2005;182(10):530-5.

Smoking cessation (4 trials)

- 27. Hearn S, Nancarrow H, Rose M, Massi L, Wise M, Conigrave K. Evaluating NSW SmokeCheck: a culturally specific smoking cessation training program for health professionals working in Aboriginal health. Health Promotion Journal of Australia. 2011;22(3):189-95.
- 28. Ivers RG, Castro A, Parfitt D, Bailie RS, D'Abbs PH, Richmond RL. Evaluation of a multi-component community tobacco intervention in three remote Australian Aboriginal communities. Australian and New Zealand Journal of Public Health. 2006;30(2):132-6.

- 29. Marley JV, Atkinson D, Kitaura T, Nelson C, Gray D, Metcalf S, et al. The Be Our Ally Beat Smoking (BOABS) study, a randomised controlled trial of an intensive smoking cessation intervention in a remote aboriginal Australian health care setting. BMC Public Health. 2014;14:32.
- 30. Walker N, Johnston V, Glover M, Bullen C, Trenholme A, Chang A, et al. Effect of a family-centered, secondhand smoke intervention to reduce respiratory illness in indigenous infants in Australia and New Zealand: a randomized controlled trial. Nicotine & Tobacco Research. 2015;17(1):48-57.

Substance use (2 trials)

- 31. Gibson A, Degenhardt L, Mattick RP, Ali R, White J, O'Brien S. Exposure to opioid maintenance treatment reduces long-term mortality. Addiction. 2008;103(3):462-8.
- 32. Shakeshaft A, Doran C, Petrie D, Breen C, Havard A, Abudeen A, et al. The effectiveness of community action in reducing risky alcohol consumption and harm: a cluster randomised controlled trial. PLoS Medicine. 2014;11(3):e1001617.

Appendix 6. Reviews with potential for updating (excluded because search prior to 2011)

- 1. Allen SJ, Martinez EG, Gregorio GV, Dans LF. Probiotics for treating acute infectious diarrhoea. Cochrane Database of Systematic Reviews. 2010(11):CD003048.
- Chang AB, Taylor B, Masters IB, Laifoo Y, Brown AD. Indigenous healthcare worker involvement for Indigenous adults and children with asthma. Cochrane Database of Systematic Reviews. 2010(5):CD006344.
- 3. Clifford A, Jackson Pulver L, Richmond R, Shakeshaft A, Ivers R. Disseminating best-evidence healthcare to Indigenous health-care settings and programs in Australia: identifying the gaps. Health Promotion International. 2009;24(4):404-15.
- 4. Demetriou Y, Höner O. Physical activity interventions in the school setting: a systematic review. Psychology of Sport and Exercise. 2012;13(2):186-96.
- Dennis SM, Zwar N, Griffiths R, Roland M, Hasan I, Powell Davies G, et al. Chronic disease management in primary care: from evidence to policy. The Medical Journal of Australia. 2008;188(8 Suppl):S53-6.
- 6. Everett T, Bryant A, Griffin MF, Martin-Hirsch PPL, Forbes CA, Jepson RG. Interventions targeted at women to encourage the uptake of cervical screening. Cochrane Database of Systematic Reviews. 2011(5):CD002834.
- 7. Forsetlund L, Eike MC, Vist GE. Effect of interventions to improve health care services for ethnic minority populations. Norwegian Journal of Epidemiology. 2010;20(1):41-52.
- 8. Gruen RL, Weeramanthri TS, Knight SSE, Bailie RS. Specialist outreach clinics in primary care and rural hospital settings. Cochrane Database of Systematic Reviews. 2003(4):CD003798.
- 9. Leach AJ, Morris PS. Antibiotics for the prevention of acute and chronic suppurative otitis media in children. Cochrane Database of Systematic Reviews. 2006(4):CD004401.
- Norris SL, Chowdhury FM, Van Le K, Horsley T, Brownstein JN, Zhang X, et al. Effectiveness of community health workers in the care of persons with diabetes. Diabetic Medicine. 2006;23(5):544-56.
- 11. Rumbold AR, Cunningham J. A review of the impact of antenatal care for Australian Indigenous women and attempts to strengthen these services. Maternal and Child Health Journal. 2008;12(1):83-100.
- Taylor S, Marchisio P, Vergison A, Harriague J, Hausdorff WP, Haggard M. Impact of pneumococcal conjugate vaccination on otitis media: a systematic review. Clinical Infectious Diseases. 2012;54(12):1765-73.
- 13. Theodoratou E, Al-Jilaihawi S, Woodward F, Ferguson J, Jhass A, Balliet M, et al. The effect of case management on childhood pneumonia mortality in developing countries. International Journal of Epidemiology. 2010;39(Suppl 1):i155-71.
- 14. Tricco AC, Ivers NM, Grimshaw JM, Moher D, Turner L, Galipeau J, et al. Effectiveness of quality improvement strategies on the management of diabetes: a systematic review and meta-analysis. The Lancet. 2012;379(9833):2252-61.
- 15. Tsai AC, Morton SC, Mangione CM, Keeler EB. A meta-analysis of interventions to improve care for chronic illnesses. The American Journal of Managed Care. 2005;11(8):478-88.
- 16. Zhang X, Norris SL, Saadine J, Chowdhury FM, Horsley T, Kanjilal S, et al. Effectiveness of interventions to promote screening for diabetic retinopathy. American Journal of Preventive Medicine. 2007;33(4):318-35.

Appendix 7. Reviews that did not identify quantitative evaluations involving Aboriginal and/or Torres Strait Islander peoples

These reviews planned to include, but did not identify, quantitative evaluations involving Aboriginal and/or Torres Strait Islander peoples.

- 1. Calabria B, Clifford A, Shakeshaft AP, Doran CM. A systematic review of family-based interventions targeting alcohol misuse and their potential to reduce alcohol-related harm in indigenous communities. Journal of Studies on Alcohol and Drugs. 2012;73(3):477-88.
- 2. Canadian Agency for Drugs and Technologies in Health (CADTH). Indigenous knowledge for smoking cessation: benefits and effectiveness. Rapid response report. HTA Database. 2014.
- Canadian Agency for Drugs and Technologies in Health (CADTH). Diabetes care for indigenous populations: a review of the clinical evidence and guidelines. Rapid response report. HTA Database. 2014.
- 4. Canadian Agency for Drugs and Technologies in Health (CADTH). Indigenous knowledge for mental illness and chronic disease: clinical effectiveness and guidelines. Rapid response report. HTA Database. 2014.
- 5. Carson KV, Brinn MP, Labiszewski NA, Peters M, Chang AB, Veale A, et al. Interventions for tobacco use prevention in Indigenous youth. Cochrane Database of Systematic Reviews. 2012(8):CD009325.
- 6. Ishikawa T, Oudie E, Desapriya E, Turcotte K, Pike I. A systematic review of community interventions to improve aboriginal child passenger safety. American Journal of Public Health. 2014;104(Suppl 3):e1-8.
- Johnston V, Westphal DW, Glover M, Thomas DP, Segan C, Walker N. Reducing smoking among indigenous populations: new evidence from a review of trials. Nicotine & Tobacco Research. 2013;15(8):1329-38.
- 8. Laws R, Campbell KJ, van der Pligt P, Russell G, Ball K, Lynch J, et al. The impact of interventions to prevent obesity or improve obesity related behaviours in children (0-5 years) from socioeconomically disadvantaged and/or indigenous families: a systematic review. BMC Public Health. 2014;14:779.
- 9. MacLean S, Harney A, Arabena K. Primary health-care responses to methamphetamine use in Australian Indigenous communities. Australian Journal of Primary Health. 2015 [Epub 2015/02/24].
- 10. McCalman J, Bridge F, Whiteside M, Bainbridge R, Tsey K, Jongen C. Responding to Indigenous Australian sexual assault: a systematic review of the literature. SAGE Open. 2014;4(1):1-13.
- 11. Sukala WR, Page R, Cheema BS. Exercise training in high-risk ethnic populations with type 2 diabetes: a systematic review of clinical trials. Diabetes Research and Clinical Practice. 2012;97(2):206-16.
- **12.** Whop LJ, Valery PC, Beesley VL, Moore SP, Lokuge K, Jacka C, et al. Navigating the cancer journey: a review of patient navigator programs for Indigenous cancer patients. Asia-Pacific Journal of Clinical Oncology. 2012;8(4):e89-96.

Appendix 8. Reviews of factors influencing implementation of interventions

- 1. Baker PR, Shipp JJ, Wellings SH, Priest N, Francis DP. Assessment of applicability and transferability of evidence-based antenatal interventions to the Australian indigenous setting. Health Promotion International. 2012;27(2):208-19.
- 2. Coyle M, Francis K, Chapman Y. Self-management activities in diabetes care: a systematic review. Australian Health Review. 2013;37(4):513-22.
- 3. Davidson PM, Jiwa M, Digiacomo ML, McGrath SJ, Newton PJ, Durey AJ, et al. The experience of lung cancer in Aboriginal and Torres Strait Islander peoples and what it means for policy, service planning and delivery. Australian Health Review. 2013;37(1):70-8.
- 4. Davy, Aromataris C, Gibson E, Brown O, A. Facilitators and barriers to the implementation of primary health care interventions for Aboriginal and Torres Strait Islander people with chronic diseases: a systematic review protocol. JBI Database of Systematic Reviews and Implementation Reports. 2013;11(7):299-311. [protocol only]
- Davy C, Lockwood C. Understanding closing the gap strategies from the perspective of Aboriginal and Torres Strait Islander peoples and their primary healthcare providers: a systematic review protocol. JBI Database of Systematic Reviews and Implementation Reports. 2014;12(10):98-108. [protocol only]
- 6. Deek H, Abbott P, Moore L, Davison J, Cameron S, Digiacomo M, et al. Pneumococcus in Aboriginal and Torres Strait Islander peoples: the role of Aboriginal health workers and implications for nursing practice. Contemporary Nurse. 2013;46(1):54-8.
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Appendix 9. Reviews of prevalence or risk factors among Aboriginal and Torres Strait Islander populations

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