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NACCHO
National Aboriginal Community Controlled Health Organisation

National guide to preventive healthcare for Aboriginal and Torres Strait Islander people

Fourth edition

National guide to preventive healthcare for Aboriginal and Torres Strait Islander people: Recommendations. Fourth edition.

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We acknowledge the Traditional Custodians of the lands and seas on which we work and live, and pay our respects to Elders, past, present and future.

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National guide to preventive healthcare for Aboriginal and Torres Strait Islander people

Fourth edition

RACGP
Royal Australian College of General Practitioners

NACCHO
National Aboriginal Community Controlled Health Organisation

Foreword

We are very pleased to release the fourth edition of the *National guide to preventive healthcare for Aboriginal and Torres Strait Islander people* (National Guide). It is almost 20 years since the National Aboriginal Community Controlled Health Organisation (NACCHO) instigated the first edition in 2005 and has collaborated with The Royal Australian College of General Practitioners (RACGP) across all editions.

The aim of the first edition was to support Australian primary care services to overcome their uncertainty about screening and other health interventions for Aboriginal and Torres Strait Islander peoples. The first edition was innovative in not merely referring to biomedical interventions, but also directing clinicians to consider the social determinants of health. This approach reflected the Aboriginal definition of health which encompasses *'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.'*

The recommendations in this edition continue to reflect the Aboriginal definition of health and for the first time tackles the issue of racism in healthcare, providing primary care teams with actionable strategies to combat its detrimental effects on health and wellbeing. Other measures to support greater cultural safety of the recommendations in this edition include a marked increase in Aboriginal and Torres Strait Islander authors and reviewers, ensuring guidance is rooted in the experience of the community it serves.

In recognition of the holistic and team-based nature of primary care, this edition is designed to be a resource for the entire care team, including Aboriginal and Torres Strait Islander health workers, health practitioners and nurses.

The National Guide is the work of many. Each chapter has been externally reviewed by experts and relevant peak bodies. We are thankful for the expertise provided by all authors and reviewers who have helped make this edition, in addition to the direction provided by the Project Reference Group. This edition is a testament to the collective wisdom of our communities, healthcare professionals, and academic experts, whose collaborative spirit has been instrumental in shaping its content.

We invite all members of this primary care community to work together to implement the recommendations within this guide as we work towards a future where health equity is a reality for Aboriginal and Torres Strait Islander peoples.

Ms Donnella Mills

Chair
NACCHO
November 2024

Dr Nicole Higgins

President
RACGP
November 2024

Acknowledgements

This *National guide to preventive healthcare for Aboriginal and Torres Strait Islander people* (National Guide) is a collaborative effort of the National Aboriginal Community Controlled Health Organisation (NACCHO) and The Royal Australian College of General Practitioners (RACGP). Both NACCHO and the RACGP endorse the National Guide according to their respective internal processes. The fourth edition of the National Guide respectfully builds on the work of all contributors to previous editions, including direct use of content. Previous authors are not named unless they contributed to this edition.

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Organisation	Topic
Asthma Australia	Asthma
Australasian Society for HIV Viral Hepatitis and Sexual Health Medicine (ASHM)	Sexually transmissible infections and blood-borne viruses
Australian Association of Gerontology – Aboriginal and Torres Strait Islander Ageing Advisory Group	Brain health, cognition and dementia Osteoporosis Mobility, balance and coordination: Falls prevention
Australian Dental Association	Oral and dental health
Cancer Council	Cervical cancer Breast cancer Liver (hepatocellular) cancer Bowel cancer Prostate cancer Lung cancer
Headspace	The health of young people: Social and emotional wellbeing
HEAL network	Health impacts of climate change

Organisation	Topic
Heart Foundation Australia	Physical activity and sedentary behaviour Overweight and obesity Cardiovascular disease
Caring for Australians and New Zealanders with Kidney Impairment (CARI)	Chronic kidney disease
Lung Foundation	Asthma Chronic obstructive pulmonary disease Bronchiectasis and chronic suppurative lung disease Lung cancer
Stroke Foundation	Overweight and obesity
NOFASD Australia	Fetal alcohol spectrum disorder
Vision 2020 Australia	Visual acuity Trachoma and trichiasis
Youth Support and Advocacy Service (YSAS)	Substance use in adolescence

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Organisation	Topic
Australasian Society for HIV Viral Hepatitis and Sexual Health Medicine (ASHM)	Sexually transmissible infections and blood-borne viruses
Cancer Council	Cervical cancer Breast cancer Liver (hepatocellular) cancer Bowel cancer Prostate cancer Lung cancer
HEAL Network	Health impacts of climate change
Heart Foundation	Physical activity Cardiovascular Overweight and obesity
NOFASD	Fetal alcohol spectrum disorder
Stroke Foundation	Cardiovascular disease
Vision 2020 Australia	Visual acuity Trachoma & Trichiasis

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Contents

Introduction

The fourth edition of the *National guide to preventive healthcare* [previously *health assessment*] for *Aboriginal and Torres Strait Islander people* (hereafter National Guide) is a joint initiative between the National Aboriginal Community Controlled Health Organisation (NACCHO) and The Royal Australian College of General Practitioners (RACGP). It continues the work of this well-established partnership that produced the previous three editions of the National Guide. The fourth edition has 45 topics, including six new topics; a more collaborative model of authorship, with many more Aboriginal and Torres Strait Islander authors, more groups of authors and authors from a wider range of health disciplines; the addition of key messages for each topic and revised presentation of recommendations; a focus on strengths rather than risks and deficits; and increased guidance on implementation. This edition also recognises more explicitly the importance of partnership and shared decision making in how healthcare is available to and experienced by Aboriginal and Torres Strait Islander people.

The fourth edition of the National Guide is available in two formats:

- a print version, containing key messages, recommendations and key tables, implementation tips, resources and selected references
- an online version, containing all the above as well as a discussion of the topic, the synthesis of evidence and a full reference list.

Updated recommendations for annual health checks in five age bands will be published in early 2025 alongside a range of existing resources to support implementation of the guide.

The drivers and determinants of health and disease are complex and include the circumstances in which people are born, grow, live, work and age. They are largely about access to power and resources such as housing, education, healthcare, employment and income, food security and being able to assert and express power in one's own life (ie self-determination), both individually and collectively.[1,2] Having access to these resources is protective and supports health, wellbeing and longevity; being excluded from or not having access to these resources drives disadvantage and negative health and social outcomes. The ongoing impacts of colonisation continue to create huge disparities across almost all health and social indicators in this country. Aboriginal and Torres Strait Islander people experience the burden of this injustice with disproportionate rates of incarceration, poverty, ill health and reduced life expectancy.[1] Aboriginal and Torres Strait Islander people also hold the vision, strength and resilience to lead in genuine partnership the cross-sectoral collaboration that is urgently needed to address these drivers of disparities in health and social outcomes.[3–5]

Recognising the importance of the determinants of health is critical to understanding the context and experience of health and healthcare. The primary healthcare sector is well positioned to contribute to reducing the impact of structural disadvantage and to support good health for individuals, families and communities through the provision of high-quality healthcare, including through health promotion and disease prevention activities.[6]

Purpose and scope of the National Guide

The primary aim of the National Guide is to present clear and up-to-date guidance for general practitioners (GPs) and primary healthcare teams on preventive healthcare for Aboriginal and Torres Strait Islander people. The National Guide does this by:

- gathering existing guidelines and recommendations and presenting them as they apply to Aboriginal and Torres Strait Islander people
- developing recommendations that support the implementation and/or effectiveness of preventive health activities.

The main criteria for the inclusion of topics in the National Guide are health issues that are **important** to Aboriginal and Torres Strait Islander people where there is evidence for preventive activities that can be **offered or supported in primary healthcare settings**. Important health issues include complex sociopolitical issues like racism and the climate crisis (both included for the first time in this edition), as well as organ- or disease-specific conditions like otitis media, cardiovascular disease and dementia.

The National Guide makes specific recommendations regarding the elements of preventive healthcare across the life cycle. The recommendations aim to promote health and wellbeing, prevent disease, and detect early and unrecognised disease while acknowledging the importance of variation based on regional and local context.

In general, the focus is on primary prevention and early detection, with some topics including secondary prevention and occasionally tertiary prevention (see Table 1).

Table 1. Type of preventive activities and examples in the National Guide

Type of preventive activity	Definition	Examples in the National Guide
Primary prevention	Preventing the onset of a health condition or risk	Promoting physical activity, immunisation
Screening for early detection	Identifying disease before the onset of signs and symptoms	Cancer screening, cardiovascular risk assessment
Secondary prevention	Preventing complications or further harm from a condition	Antibiotic prophylaxis for rheumatic heart disease
Tertiary prevention	Treatment of established harms	Bariatric surgery

In addition to providing guidance for primary healthcare teams, recognised secondary uses of the National Guide include:

- supporting planning and quality improvement activities in health services and practices
- in education and training across health disciplines
- as a key reference in preventive healthcare for Aboriginal and Torres Strait Islander people in the development of:
  - other clinical guidelines
  - other resources for clinicians
  - clinical software
  - government and other organisational policy and programs
  - local health programs and projects.

For the first time, recommendations for annual health checks, which offer a structured approach to preventive healthcare and are a key implementation strategy of the National Guide, were updated alongside the development of the fourth edition.

Key principles informing the National Guide

Development of the National Guide is built on Aboriginal and Torres Strait Islander leadership and contribution, strong collaboration as a way of working and recognition of different knowledge systems.

Many of the principles that underpin the guide are about recognising and understanding the context and experience of Aboriginal and Torres Strait Islander people's lives, including:

- that health encompasses physical, social, emotional, spiritual and cultural wellbeing and is both individual and collective[7] (see Figure 1)
- that cultural and community connection is protective[8]
- the importance of identifying and building on individual and collective strengths
- the ongoing impact of colonisation and racism
- the primary importance of community leadership and involvement in identifying priorities and making decisions about service responses and programs (collective self-determination)
- the primary importance of partnership and shared decision making in how healthcare is available and experienced (individual self-determination)
- the determinants and drivers of health and disease (social, political, cultural) and how they impact on health and wellbeing
- that the way healthcare is available and experienced matters.

This conception of self is grounded within a collectivist perspective that views the self as inseparable from, and embedded within, family and community

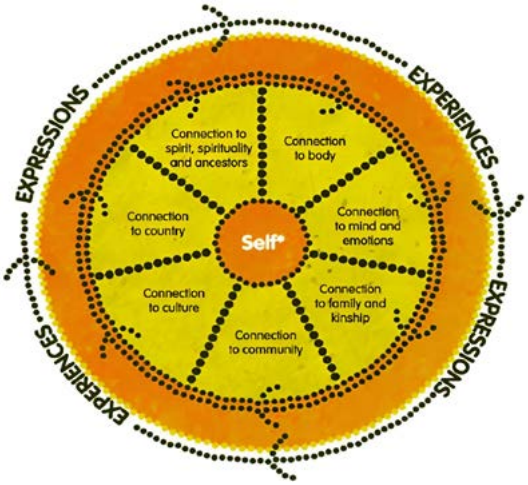

Figure 1. Social and emotional wellbeing from an Aboriginal and Torres Strait Islander perspective.
Reproduced with permission from Gee et al.[7]

Applying a cultural lens that considered these contextual factors, as well as cultural appropriateness and acceptability, informed the general approach to topics, and specifically to the development of key messages and recommendations. This included:

- positively stating what promotes, supports, protects and strengthens health and wellbeing
- the importance of culturally safe healthcare and culturally appropriate advice, including when considering referral
- the importance of trauma-informed healing-focused healthcare.

Finally, the aim of the National Guide is to have an impact on improving health and preventing disease by supporting primary care teams in effective preventive healthcare delivery with Aboriginal and Torres Strait Islander people, and this has informed the content, style and recommendations. Thinking about implementation and translation into practice was a key principle from the outset.

Preventive healthcare

Preventive healthcare is key part of comprehensive primary healthcare.[9,10] GPs and all members of primary healthcare teams have the opportunity to promote health and wellbeing, and to prevent disease through assessment, advice and action with individuals and communities in everyday healthcare interactions, in the implementation of population health programs such as immunisation and cancer screening, in structured activities such as annual health checks and in individually focused and broader advocacy.

Particularly given the disparities in health and life expectancy between Aboriginal and Torres Strait Islander and non-Indigenous Australian people, a systematic approach to preventive healthcare has the potential for huge impact. Preventing and detecting disease early can translate into people living longer, healthier lives and reduced hospital admissions and health costs.

Annual health checks for Aboriginal and Torres Strait Islander people, which were introduced as a dedicated Medicare Benefits Schedule (MBS) item through the early 2000s, are a structured way of organising age-appropriate preventive health activities and are a key Australian Government strategy for reducing health inequities. The *National Aboriginal and Torres Strait Islander Health Plan 2021–2031* includes a specific objective to 'increase the quality and uptake of health checks'.[4]

The way healthcare is offered matters

Access to healthcare is one of the important determinants of health. To be meaningful, appropriate and effective, preventive healthcare for Aboriginal and Torres Strait Islander people needs to be provided in a way that is acceptable, affirms cultural understandings of health and wellbeing and recognises the cultural and linguistic diversity of Aboriginal and Torres Strait Islander peoples.

This edition of the National Guide includes, for the first time, a chapter on the health impacts of racism. The imperative for healthcare to be free of racism and stigma and the need for culturally safe healthcare is clear. The Australian Health Practitioner Regulation Agency identifies the 'inextricably linked elements of clinical and cultural safety'.[11] The effectiveness of the recommendations in the National Guide depends on people having access to and experiencing culturally safe services.

Key features of effective primary health services for Aboriginal and Torres Strait Islander people include:

- welcoming, respectful and culturally safe experience for patients
- healthcare based on trust and continuity
- recognising and building on individual and collective strengths
- building partnership and shared decision making
- an understanding of trauma and the way trauma impacts health and wellbeing
- collaboration between patients, providers and services, with Aboriginal and Torres Strait Islander staff whenever possible
- flexible service design.

Identifying Aboriginal and Torres Strait Islander people

Healthcare providers are responsible for making sure that the identification of Aboriginal and Torres Strait Islander people is undertaken appropriately and is accurately recorded in their health records within clinical software systems.

Identifying Aboriginal and Torres Strait Islander patients is an essential first step in ensuring access to and offering specific and appropriate healthcare, including initiatives such as Medicare item annual health checks, the Pharmaceutical Benefits Scheme co-payment measure and the Practice Incentives Program Indigenous Health Incentive.

Accurate identification of Aboriginal and Torres Strait Islander patients is also required to make sure the health data about Aboriginal and Torres Strait Islander people are accurate. This is an essential part of health service- and practice-level monitoring and quality improvement, as well as tracking the performance of the health system, including high-level commitments such as those included in the National Agreement on Closing the Gap.[12]

The Australian Institute of Health and Welfare recommends asking everyone who attends a health service:

> *Are you of Aboriginal or Torres Strait Islander origin?* [13]

Using the National Guide and cross-referencing with the Red Book

The National Guide and the RACGP *Guidelines for preventive activities in general practice* (Red Book)[14] both provide evidence-based clinical guidance for primary care clinicians. The chosen health topics and the way they are presented in the National Guide reflect important health issues for Aboriginal and Torres Strait Islander peoples, particularly where there are differences between Aboriginal and Torres Strait Islander and non-Indigenous populations. Significant differences are informed by prevalence, age of onset, impact of health conditions and cultural factors. Many recommendations in the National Guide also relate to the context of health and healthcare and provide guidance on how to offer healthcare and what to do. The Red Book is a synthesis of evidence-based guidelines on primary prevention from Australian and international sources and provides recommendations for the general population and for everyday use in general practice. Primary care clinicians are encouraged to refer to the Red Book for common health issues not included in the National Guide.

Using local guidelines

Effective preventive healthcare, including components of annual health checks, should reflect local needs and priorities, as well as general advice. Healthcare providers are encouraged to consult local guidelines where appropriate and available. This is especially relevant for conditions that are endemic in certain regions, such as acute rheumatic fever/rheumatic heart disease and trachoma, or where there are differences in access to services and/or jurisdictional variation in programs.

Implementing preventive healthcare

Preventive healthcare can be provided in any clinical encounter in primary care, both planned and opportunistically (ie without being planned for). It can be offered in individual components or in the structured format of an annual health check.

Medicare rebates are available for annual health checks, which provide an opportunity for dedicated time to consider and discuss what supports health and wellbeing and to identify health risks.

Health checks should:

- recognise that there are diverse experiences, socioeconomic circumstances and exposure to risk factors and protective factors among Aboriginal and Torres Strait Islander peoples
- be completed in partnership between healthcare providers and patients
- support individuals and families to take charge of their health and wellbeing
- identify strengths and health needs, guided by patient goals and priorities
- include age-appropriate evidence-based preventive health activities
- include a plan for responding to and the follow-up of identified health needs.

Updated recommendations on what to include in annual health checks and a range of other resources are available on the NACCHO–RACGP resource hub (racgp.link/3zlCNDa).

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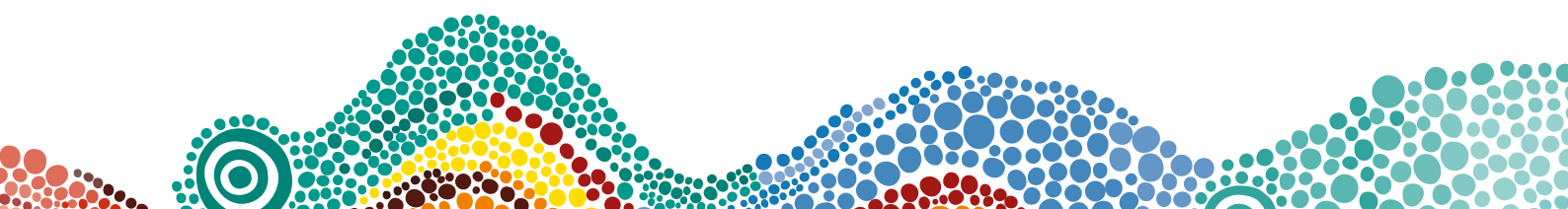


Development of the National Guide (methodology)

The fourth edition of the *National guide to preventive healthcare for Aboriginal and Torres Strait Islander people* (National Guide) is a joint initiative between the National Aboriginal Community Controlled Health Organisation (NACCHO) and The Royal Australian College of General Practitioners (RACGP). Development of the fourth edition occurred from 2022 to 2024 and is based on review and updating of the third edition (2018). The fourth edition was funded by the First Nations Health Division, Australian Government Department of Health and Aged Care and undertaken by a project team and executive who coordinated all aspects of the project, including liaising with the funder, convening a Project Reference Group, clinical editing, commissioning authors to develop drafts of specific topics, coordinating input from topic-specialist teams within NACCHO, coordinating expert individual and organisational reviews, formatting and editing for publication, seeking endorsement and developing dissemination strategies and resources to support implementation. Both NACCHO and the RACGP endorse the National Guide according to their respective internal processes.

Governance

Governance of the NACCHO–RACGP partnership that developed the National Guide was provided by an Aboriginal and Torres Strait Islander-led Project Reference Group and an Executive Group who guided implementation of the project. These groups included representatives of NACCHO and RACGP and nominated experts. Governance included oversight of cultural, clinical and project domains.

Review of the third edition of the National Guide

Formal review of the third edition of the National Guide was conducted to gather as much understanding as possible about the process of developing the guide, as well as usage and how the structure, content and modes of dissemination could be improved. This included:

- feedback from third edition authors on their experiences as authors (conducted soon after publication in 2018)
- an online survey in 2022 (distributed to RACGP members and all NACCHO affiliates and member services) primarily involving GPs and Aboriginal and Torres Strait Islander health workers and health practitioners seeking feedback and suggestions for improvements to the structure and content for the fourth edition
- input from the Project Reference Group, including review of existing topics and suggestions for new topics
- review of the third edition and consideration of possible new topics by the Executive Group based on all feedback and suggestions received since publication of the third edition

The topics included in the fourth edition were finalised by the Project Reference Group, including some minor changes to existing topics (see What's new in the fourth edition) and the addition of the following new topics:

- Health impacts of racism
- Healthy eating
- Sleep
- Vaping
- Preconception care
- Health impacts of climate change

Model of authorship

Each topic, including the development of recommendations, was led by an author or by coauthors and ongoing liaison with the clinical lead. A commitment in the fourth edition was to increase Aboriginal and Torres Strait Islander authorship. The fourth edition has 15 Aboriginal and/or Torres Strait Islander authors in 21 of the 45 topics. Many topics are co-authored, often with combinations of clinicians and researchers. Among the clinicians, there is a range of disciplines including GPs, nurses, Aboriginal health practitioner, exercise physiologist, psychologist and some non-GP medical specialists.

The Executive Group identified several topics of particular cultural and/or other complexities that may affect the applicability, usefulness, cultural appropriateness and/or acceptability of the recommendations. An advisory group, all of whom are Aboriginal and Torres Strait Islander people, was established for the racism topic to inform the scope of the evidence review and the recommendations developed.

Authors, particularly those with less experience in evidence review and writing, were given an option of having a more experienced clinician-researcher as an advisor.

Recruiting authors

In line with the commitment to increasing Aboriginal and Torres Strait Islander authorship, all Aboriginal and Torres Strait Islander GP members of the RACGP Aboriginal and Torres Strait Islander Health faculty were invited to complete an expression-of-interest (EOI) to author and indicate their topic(s) of interest. Previous authors and other suitable colleagues who were nominated by NACCHO, the Lowitja Institute (Executive Manager, Research and Knowledge Translation) or known to project team members were also invited to complete EOIs and/or discuss with the project team. Authors were selected and topics allocated by the clinical lead and project team based on relevant interest and experience.

Information webinars were promoted as part of the recruitment process and orientation webinars were run for appointed authors.

Method for developing topics

Topics were developed as per the structure shown in Box 1.

Box 1. Topic structure

Background

- Brief description of the topic, including definitions
- Context, scope and purpose – why this topic is important (prevalence, impact, opportunities for prevention, what is specific to this population, areas of contention/variance in practice, the extent of secondary prevention that will be included)
- Significant changes from third edition recommendations

Preventive activities

- Summary and appraisal of evidence:
  - existing guidelines and recommendations
  - generalisability and applicability
  - confidence in balance of benefit/harm
  - factors influencing implementation
- Rationale/considerations in the development of recommendations

Recommendations

- In five domains of preventive activities: immunisation, screening, behavioural, medication, environmental
- Indication of strength of each recommendation and the factors considered in developing the recommendation: quality/certainty of evidence, patient/community values and preferences/acceptability, feasibility, equity and relevant resource use

Implementation tips

- Provided as practice points, for example:
  - establishing recall and reminder systems to support follow-up/secondary prevention
  - identifying indicators for clinical audit and quality improvement activities
  - staff training
  - activities to increase participation in screening and other preventive health activities

Useful resources

- For example:
  - relevant clinical guidelines on the topic (management of condition)
  - health promotion
  - education and training
  - community resources and services

Scope of topics

The National Guide focuses on topics that are **important** for Aboriginal and Torres Strait Islander peoples where there is **evidence** for preventive activities that can be **offered or supported in primary healthcare settings**. In general, the focus is on primary prevention and early detection. Some topics include secondary prevention and occasionally tertiary prevention.

Preventive activities were included if they were considered **effective, feasible** to implement, **acceptable** to patients and communities, and likely to **make a substantial contribution** to health and wellbeing and/or **reduce overall disease burden**. A pragmatic approach was taken for each topic area to determine which secondary prevention activities should be included (recognising that components of active management of many chronic conditions constitute secondary prevention and may extend beyond the scope of the National Guide).

In this fourth edition, recommendations for preventive activities are presented in the five categories used in previous editions:[1]

- **Immunisation** – the administration of vaccines to prevent infection and/or reduce the severity of infectious disease
- **Screening** – the systematic detection and management of risk factors or disease before symptoms develop
- **Behavioural** – activities that target the actions a person may take for the purpose of promoting or maintaining health (eg physical activity) or brief interventions by clinicians (eg to support smoking cessation or safe sex)
- **Medications** – to prevent a condition and/or prevent complications of existing disease (ie secondary prevention)
- **Environmental** - activities that could include:
  - managing environmental hazards (eg ensuring adequate ventilation when cooking with solid fuels)
  - community-based programs (eg improved food supply, school-based programs, study groups)
  - actions related to social determinants of health (eg advocacy for priority housing, advocacy to government stakeholders for local/regional liquor licencing regulations)

Authors were provided with a guide of factors to identify or consider in defining scope of the topic:

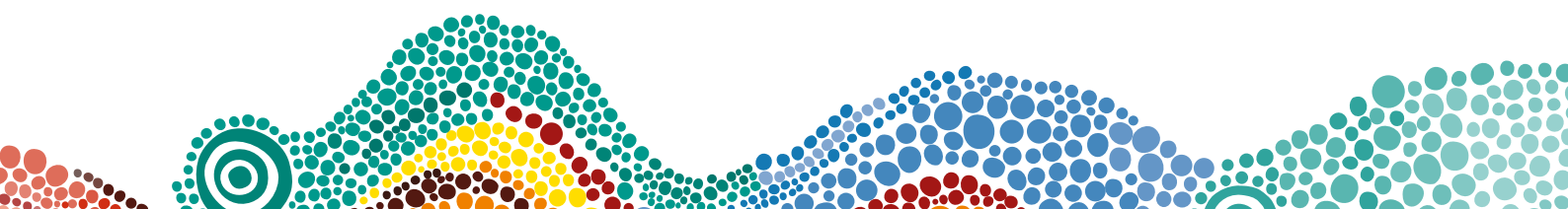
- Type of preventive activities in identified domains – immunisation, screening, behavioural, medication, environmental
- Activities actionable in primary healthcare settings (see below)
- Areas of uncertainty and variability in practice
- Applicability and generalisability to Aboriginal and Torres Strait Islander populations and to primary healthcare settings (see below)
- Important outcomes and priorities and other considerations, such as acceptability, feasibility, equity and resource use, whether or how cultural factors may inform a different approach
- Extent of secondary prevention to be included.

Applicability to Aboriginal and Torres Strait Islander people

Applicability to Aboriginal and Torres Strait Islander people is considered with regard to:

- differences in prevalence of disease, health conditions and/or protective and risk factors that may influence the population benefits, acceptability, cost-effectiveness of the intervention and predictive value of screening tests
- sociocultural and/or environmental factors that may inform a different approach
- evidence on variation in the effectiveness and appropriateness of an intervention/approach across settings, including different geographical settings.

If the evidence from other populations (indirect evidence) was considered not fit for purpose, this was identified. Specific evidence against generalising national and international recommendations to Aboriginal and Torres Strait Islander populations was necessary to determine when recommendations did not apply.



While recognising research and discussion about Aboriginal and Torres Strait Islander genomics is a growing field, recommendations based on a genetic predisposition to disease were considered ungeneralisable due to the wide heterogeneity of Aboriginal and Torres Strait Islander populations.[2] The consideration of individual predisposing risk factors, including family history was deemed relevant.

Applicability to primary healthcare

Recommendations are for preventive activities that can be provided in primary healthcare settings. Preventive interventions considered out of scope are those implemented outside the primary healthcare context. Examples include screening for tuberculosis, interventions to increase workforce participation and housing and education initiatives. However, where appropriate, recommendations to support an advocacy role in relation to broader determinants of health are included.

The clinical lead met with all authors/author groups to discuss and agree on the scope of each topic.

Evidence review

The evidence base for the National Guide is informed primarily by current national and international evidence-based guidelines (see Box 2). Where existing guidelines were considered insufficient for a particular topic area, systematic reviews and meta-analyses of primary research were reviewed. In the absence of these studies, or where the scope was considered insufficient, authors were instructed to review empirical research and other evidence (grey literature; see Box 3), and, particularly in the absence of direct or relevant indirect evidence, expert opinion. Whenever available, evidence and other literature regarding cultural factors, including acceptability, feasibility and implementation of recommendations, was included.

Box 2. Existing guidelines and recommendations searched

1. National Guide third edition chapter (existing topics)
2. National guidelines
   i. RACGP guidelines (eg Red Book, SNAP, White book)
   ii. Aboriginal and Torres Strait Islander-specific guidelines (eg CARPA, Kimberley Aboriginal Medical Services Council, otitis media guidelines, CARI guidelines[3])
   iii. Other Australian, including National Health and Medical Research Council (NHMRC), guidelines (eg Tropical health orientation manual,[4] Queensland primary healthcare resource, Therapeutic Guidelines, Heart Foundation, National Vascular Disease Prevention Alliance, Cancer Councils)
3. International guidelines

   Tier 1 (reliably robust methodology including graded evidence and recommendations)
   i. U.S. Preventive Services Task Force (USPSTF)
   ii. National Institute for Health and Care Excellence (NICE), UK
   iii. Canadian Taskforce on Preventive Health Care (CTFPHC)

   Tier 2: Other international guidelines (variable methodology)
   i. New Zealand Guidelines Group
   ii. World Health Organization (WHO), international
   iii. Scottish Intercollegiate Guidelines Network (SIGN), UK

   Repositories
   i. Guidelines International Network (GIN), international (now the repository for NHMRC)
   ii. Agency for Health and Research Quality (AHRQ), US
   iii. Centers for Disease Control and Prevention (CDC), US
4. Systematic reviews and meta-analyses
   i. PubMed
   ii. Cochrane Database of Systematic Reviews
   iii. AHRQ, US
   iv. CDC, US
5. Empirical research/individual studies, especially those specific for Aboriginal and Torres Strait Islander populations

Box 3. Other literature searched

1. Cultural frameworks and reports
2. Government websites and publications, organisational reports, other grey literature:
   - Australian Institute of Health and Welfare racgp.link/40byTaQ
   - Current policy and health plans
   - Economic evaluations
   - Information on current practice and any variations
   - Differences between populations/equity considerations
   - Data describing epidemiology and current practice
   - Information on the experiences, values and preferences of consumers
3. Expert opinion statements to guide best practice recommendations
4. Other sources, such as HealthInfoNet racgp.link/48hrtVv

Authors were instructed to focus on publications from July 2017 (cut-off date for third edition of the National Guide) initially to August 2022. This date was extended as timelines for the completion of topics extended, particularly to include updated guidelines, such as:

- *Recommendations for culturally safe and clinical kidney care for First Nations Australians*[3]
- *Clinical practice guidelines for the prevention, early detection and management of colorectal cancer*[5,6]
- *lung cancer screening recommendations*[7]
- *recommendations for routine ear health and hearing checks for Aboriginal and Torres Strait Islander children*[8]
- *Australian guide for assessing and managing cardiovascular disease risk*[9]
- *National healthy skin guideline.*[10]

Formulating and assigning strength of recommendations

Authors were instructed to examine the evidence, summarise existing recommendations and other evidence, critically appraise the source recommendations, assign the strength of recommendation and record relevant references. Further, a key purpose of the guide is the step appraising the suitability of existing recommendations for Aboriginal and Torres Strait Islander people. Based on previous experience, this is especially important for determining the optimal frequency of an intervention or the age from which to commence an intervention. For example, based on disease prevalence data, many preventive interventions are recommended to start at an earlier age in Aboriginal and Torres Strait Islander people than in the broader population.

The following questions were provided to authors to help with the assessment of a guideline or other recommendation:

- What are the most relevant primary and secondary preventive interventions to report on this topic?
- Are the benefits/harms clinically significant?
- What is the target population of the recommendation? Is the intervention applicable/generalisable to the Aboriginal and Torres Strait Islander population or are there significant differences (eg earlier age of commencing screening, such as calculating cardiovascular disease risk)?
- Are there parts of the topic that are specific or particularly relevant to Aboriginal and Torres Strait Islander populations?
- Are there choices and uncertainties that arise in this area in practice?
- Is the intervention relevant to primary healthcare?

- Do the interventions need to be adapted?
- Is there other evidence that should be included in developing recommendations?
- What else needs to be considered in developing and implementing recommendations?

Authors were instructed to present recommendations as per the reporting template, which includes the type of preventive activity, the target population, what to do, the timing or interval, the strength of recommendation, the type of key source(s) and a brief rationale (Figure 1).

Figure 1. Reporting template for recommendation.

Childhood growth and development						
Type of preventive activity	**Who/target population**	**What**	**When**	**Strength of recommendation**	**Key source(s) and reference(s)**	**Rationale/key considerations informing recommendation**
Immunisation	All children	Provide immunisation	As per National Immunisation Program Schedule	Strong	National guideline[11]	Established population health program

The strength of recommendation was assigned by authors as 'Strong', 'Conditional' or 'Good practice point' (see Box 4). The strength was informed by the robustness and reliability of the source, the certainty of evidence as it applied to the target population and any other evidence about acceptability or fit, particularly with respect to cultural factors. For many interventions there is limited direct evidence from which to draw conclusions. Expert opinion is therefore also considered particularly important in interpreting the evidence and making judgements about recommendations, including the strength of recommendation, for Aboriginal and Torres Strait Islander populations.

Review of the strength of recommendation was part of the clinical editorial and expert review processes.

Box 4. Strength of recommendation

Strong	Clear evidence that benefit outweighs risks/harms if the recommendation is implemented. This includes established population health programs
Conditional	Evidence that benefit probably outweighs risks/harms if the recommendation is implemented. There may be wide variability in patient preferences. There may be conditions that make the recommendation more or less appropriate
Good practice point	Expert opinion/consensus is confident of net benefit in context of unavailable, indirect and/or ungraded evidence

Key sources

The type of key source(s) is described, as well as the reference being provided, with the aim of providing greater transparency about what is informing the recommendations, particularly for a broader audience with widely varying academic experience (see Box 5).

Box 5. Key source descriptors

Key source(s) descriptor	Notes
National guideline	Australian and not international
International guideline	From robust source (eg NICE, WHO, USPHTF)
Jurisdictional guideline	State, territory or region based
Systematic review	Systematic review of published literature following prespecified methodology (PICO [Patient/population, Intervention, Comparison and Outcomes], strict inclusion/exclusion criteria)
Narrative review	Review of published literature, does not have standardised protocol, depends on author and the objectives of the review The preferred approach is IMRAD (Introduction, Method, Results and Discussion)
Scoping review	Review of emerging evidence and the extent to which a topic is covered or has been considered in published literature
Position statement	Statement published by health professional body (eg Australian Indigenous Doctors' Association)
Consensus statement	Consensus-based statement in absence of certain evidence
Single study	Included for Aboriginal and Torres Strait Islander-specific (direct) evidence to strengthen and/or clarify applicability, acceptability
Cohort studies	Observational studies to report on outcomes based on particular exposures
National strategy	For example, health plan
National standards	For example, Australian Health Practitioner Regulation Agency (Ahpra) regarding cultural safety, RACGP
Peer-reviewed viewpoint article	Expert opinion that has been peer reviewed
Community-based study	Change to single studies +/– Aboriginal and Torres Strait islander specific
Resource	For example, Finding your way shared decision-making framework
Aboriginal and Torres Strait Islander specific	Can be applied to any descriptor

Guidance to support implementation

One of the strengths of the National Guide is providing guidance for activities within the health service to support implementation of recommendations. Authors were instructed to include guidance on implementation, which is generally provided as either good practice points (eg recommendations about cultural safety and trauma-informed practice) or implementation tips (eg establishing recall and reminder systems, identifying indicators for clinical audit and continuous quality improvement activities, staff training and increasing participation in screening and other preventive health activities).

Editorial review, expert review and stakeholder consultation

Authors submitted drafts to the clinical lead, who reviewed and provided suggestions for revisions. All topics were reviewed by the NACCHO senior medical advisor as advanced drafts. Topics were also reviewed by topic-specialist NACCHO teams where NACCHO had established program areas and expertise. These include child health topics, ear health, sexually transmissible infections and blood-borne viruses, acute rheumatic fever/rheumatic heart disease and all the mental health and cancer topics. An editorial team, comprising the clinical lead, NACCHO senior medical advisor, project lead and coordinator and RACGP Aboriginal and Torres Strait Islander health faculty medical advisor, reviewed all topics as a group.

All topics were sent to one or more independent expert reviewers, who were given a template to complete in which they were asked to comment on:

- consistency of recommendations with your knowledge of the evidence
- applicability of recommendations to Aboriginal and Torres Strait Islander peoples, including rationale for significant differences to existing general guidelines
- any key gaps in relation to primary prevention, screening/early detection and, where relevant, secondary prevention
- other recommendations to support knowledge translation and implementation (implementation tips)
- comments on key messages
- any other feedback you may have on this topic.

Reviewers were also invited to make specific suggestions and comments within the draft topics. All feedback was considered by the clinical lead, who liaised with authors. Relevant peak bodies were approached to review key messages and recommendations. Those that were able to provided feedback, which was considered by the clinical lead, who liaised as needed with authors. Most peak body organisations that provided feedback were asked to consider final drafts for their support and/or endorsement.

All authors, external reviewers, external peak body organisations and other contributors are listed in the Acknowledgements.

The RACGP Red Book and National Guide were updated simultaneously. Final drafts of both were compared to make sure of alignment or sound rationale for recommendations where there are differences. The final draft of the National Guide was reviewed by the RACGP Expert Committee – Quality Care (REC–QC).

Funding, conflicts of interest and intellectual property

The fourth edition of the NACCHO–RACGP *National guide to preventive healthcare for Aboriginal and Torres Strait Islander people* was funded by the Australian Government Department of Health and Aged Care, administered by the RACGP through a collaboration agreement with NACCHO. This work was also supported by a Memorandum of Understanding between NACCHO and the RACGP. The funding bodies were not involved in either the conception and design or in development of the content of the National Guide. The RACGP contracted the clinical lead, project lead and project coordinator. NACCHO appointed the clinical advisor to the project. All authors were signatories to a statement of works with the RACGP.

All authors made signed declarations of financial or other conflicts of interest. No financial or other relevant conflicts were identified. Authors received a modest payment. External reviewers and peak body organisations were not paid by the project. Their contribution is a vital part of the robustness of the National Guide and their generosity is greatly appreciated.

Authors are identified in each topic and can cite the topics they authored as a publication.

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What's new in the fourth edition

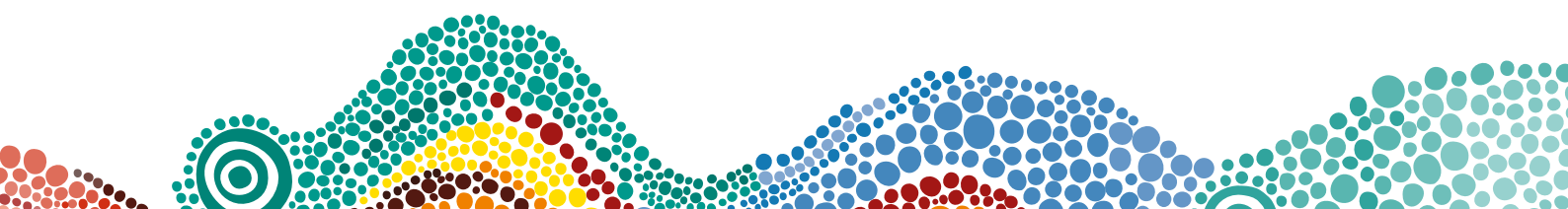
The fourth edition of the *National Guide to preventive healthcare for Aboriginal and Torres Strait Islander people* has updated all existing topics, as well as adding new topics that reflect emerging health priorities and opportunities identified by users of the National Guide and by the project reference group.

The National Guide and the RACGP *Guidelines for preventive activities in general practice*, 10th edition (the Red Book) complement each other by providing guidance for primary care clinicians on preventive healthcare. The National Guide addresses issues that are specific to the Aboriginal and Torres Strait Islander population. The Red Book has guidance on additional common topics, such as incontinence, that are not included in the National Guide. The range of topics and emphases within topics varies between the guides, and healthcare professionals are encouraged to refer to both.

New topics in the fourth edition	
Health impacts of racism	Racism is increasingly recognised as a major determinant of health and a driver of disparity in health and social outcomes. Inclusion in the National Guide is an opportunity to translate evidence into practice. This topic has recommendations to support awareness of bias, anti-racist practice and the provision of culturally safe healthcare.
Healthy eating	This topic has been separated from the 'Overweight and obesity' topic to strengthen the health promoting messages of healthy eating as a foundation to good health and wellbeing, with positive and strong cultural framing.
Sleep	One of the foundations of good health and wellbeing is sleep. Poor-quality sleep is a risk factor for many chronic health conditions. This topic provides guidance for clinicians to include assessment and effective interventions to identify problems and improve the quality of sleep.
Vaping	Vaping is a highly visible, contentious and important health issue that has emerged over recent years, particularly with marketing targeted at young people. Inclusion in the guide provides clinicians with guidance in this area, where there is minimal evidence about what is and is not known.
Preconception care	Supporting healthy pregnancy supports better infant and maternal health outcomes and is a major opportunity to provide primary preventive healthcare and influence the life trajectory of infants/people. This topic builds on asking about pregnancy intention to identify opportunities for appropriate preconception care.
Health impacts of climate change	Including this topic for the first time in the National Guide is an opportunity to bring the broad evidence around health impacts of the climate crisis into the primary care setting in practical and actionable ways.

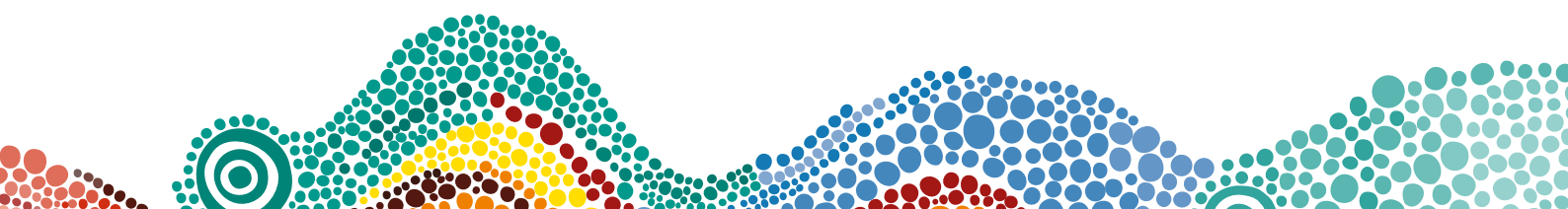
Key changes to existing topics and recommendations	
Physical activity and sedentary behavior	Positive and stronger cultural framing, including specific recommendations about screen time
Smoking	Change from the 5As (Ask, Assess, Advise, Assist and Arrange) approach to brief intervention to the three-step Ask, Advise, Help (AAH) model New recommendations added about preventing smoking uptake and exposure to second-hand smoke among children
Alcohol	Change from the 5As (Ask, Assess, Advise, Assist and Arrange) approach to brief intervention to the three-step Ask, Advise, Help (AAH) model New recommendations added about preventing smoking uptake and exposure to second-hand smoke among children
Immunisation across the life course (previously Immunisation)	Topic expanded to include discussion and recommendations for people of all ages Section on emerging and re-emerging diseases
Child maltreatment: Supporting families to optimise child safety and wellbeing (previously in the 'Child health' chapter, now in 'Child and family safety chapter)	Stronger strengths-based approach and recommendations around support for families with complex needs New recommendation not to routinely screen for child maltreatment New recommendation to be alert to signs and indicators of child maltreatment
Preventing and recognising family abuse and violence (FAV) (previously a standalone topic, now in Child and family safety chapter)	New recommendations about the need for service-level systems and protocols, as well as staff training to support effective and appropriate responses to FAV Broader recommendations to enquire about FAV and being alert to signs and indicators of FAV in children
Pregnancy care	Added trauma-informed understanding in the context of engagement with antenatal care Change in screening recommendation for gonorrhoea for women from high-prevalence settings to routinely testing all pregnant women New screening recommendation for all pregnant women to include hepatitis C and HIV, as well as hepatitis B if immune or infectious status not known New screening and management recommendations for hypertensive disorders, including pre-eclampsia New recommendation about first trimester non-invasive pre-natal testing
Childhood growth and development (previously 'Growth failure')	Shift from a focus on growth failure to consideration of a holistic, comprehensive approach to promoting growth and development, with a focus on what supports families and communities so that children flourish Centres the critical importance of cultural safety, and the central role culture must play in optimising child health, growth and development Acknowledges the role of a life course approach to reducing the burden of non-communicable diseases later in life Acknowledges both under- and overweight and promotes a focus on healthy weight
Childhood anaemia	Recommendations about recognising and managing anaemia in pregnancy as primary prevention of anaemia in infants Expanded environmental recommendations
Childhood kidney disease	Expanded environmental recommendations
Fetal alcohol spectrum disorder	New screening recommendation to ask about pregnancy intention

Key changes to existing topics and recommendations	
The health of young people: Sexual and reproductive health in adolescence (previously 'Unplanned pregnancy')	Topic expanded to include a broader range of sexual health issues
The health of young people: Substance use in adolescence (previously 'Illicit drug use')	Shift in emphasis to trauma-informed understanding in the context of harmful substance use
Brain health, cognition and dementia (previously 'Dementia')	New screening recommendation for people aged 50 years and over to assess risk factors and ask about memory and thinking New recommendation to ask about, assess and treat hearing impairment
Osteoporosis	Environmental recommendation to increase awareness of air pollution as a risk factor
Trachoma and trichiasis	Shift in emphasis from individual face washing (and responsibility) to contribution of environmental and living conditions New recommendation to refer for ophthalmology assessment when trichiasis is detected New recommendation to consider epilation as a temporary measure while awaiting surgery Expanded environmental recommendations
Ear health and hearing	Expanded across life course New recommendations for ear health and hearing checks in children New recommendations about noise protection Expanded environmental recommendations
Acute rheumatic fever and rheumatic heart disease	New screening recommendation for echocardiography, when available and well supported, as the appropriate screening activity for people from high-risk groups or living in high-risk settings for acute rheumatic fever/rheumatic heart disease New recommendations for preconception and pregnancy care Expanded environmental recommendations
Sexually transmissible infections (STIs) and blood-borne viruses	New immunisation recommendations for HPV HIV and syphilis added to chlamydia and gonorrhoea in basic STI screening Age for STI screening in remote areas increased to 34 years New hepatitis B recommendation to test all adults not previously screened or whose immune or infective status is not known New recommendation for patient-delivered partner therapy for STIs
Asthma	Recommendations for COVID-19 and annual influenza immunisation added New recommendation to encourage breastfeeding and to not delay solids in infancy New recommendation to address psychosocial stress in the prevention and management of asthma
Chronic obstructive pulmonary disease	COVID-19 added to immunisation recommendations
Bronchiectasis and chronic suppurative lung disease	New screening recommendation to ask about chronic wet cough in children and adults New recommendation about adequate nutrition, including vitamin D New recommendation about air pollution Expanded environmental recommendations



Key changes to existing topics and recommendations	
Overweight and obesity	Moved from the 'Lifestyle' chapter to a standalone topic alongside other comparable chronic conditions, such as cardiovascular disease and diabetes New recommendation to encourage the intake of traditional foods or equivalents
Cardiovascular disease (CVD)	New recommendation to begin annual assessment of individual CVD risk factors for Aboriginal and Torres Strait Islander people from age 18 years (at the latest) New recommendation to use the Australian CVD risk calculator from age 30 years (at the latest) for Aboriginal and Torres Strait Islander people and consideration given to adjusting risk assessment upwards if close to a risk threshold New recommendation to screen for atrial fibrillation from age 50 years by palpation of the pulse followed by a full electrocardiogram (ECG) or ECG rhythm strip using a hand-held ECG when further assessment is indicated
Type 2 diabetes	New recommendation for screening in children aged 10 years and older with identified risk factors for diabetes
Chronic kidney disease	New screening recommendations that include screening for red flags and additional factors New recommendation to complete kidney health check (blood pressure, estimated glomerular filtration rate, urinary albumin-to-creatinine ratio) at least annually for people aged 18 years and older New recommendation to advise sodium–glucose cotransporter 2 inhibitor for adults with albuminuria New recommendation to consider glucagon-like peptide-1 agonists for adults with chronic kidney disease and diabetes
Lung cancer	New recommendation to discuss the potential benefits and harms of low-dose computed tomography screening for people aged 50–70 years at higher risk of lung cancer (30 or more pack-years of smoking) in line with National Lung Cancer Screening Program commencing July 2025
Bowel (colorectal) cancer	Age to recommend starting screening in National Bowel Cancer Screening Program lowered to 45 years New recommendations about access to immunochemical faecal occult blood test
Liver (hepatocellular) cancer	New recommendations about hepatitis B and hepatitis C screening New recommendations about healthy living and health risk advice, and management to prevent metabolic-associated fatty liver disease New recommendations about liver function tests and follow-up of abnormal results New recommendations about timing of liver ultrasound and α-fetoprotein testing
Cervical cancer	Age of target population and eligibility for funded human papillomavirus vaccination expanded Human papillomavirus cervical screening sample can be routinely self-collected Increased recommendations for abnormal screening results
Breast cancer	New recommendation to consider screening mammography in women aged 40–49 years (funded via BreastScreen) Changes to screening commencement ages based on level of risk
Prostate cancer	Expanded age-based screening recommendations
Depression	Increasing evidence that connection to culture is protective of social and emotional wellbeing

Changes in development and format
Increased contribution by Aboriginal and Torres Strait Islander people across the project – in governance and staff developing the guide, as authors and reviewers (individual and organisational) and from topic-specialist NACCHO teams
Authorship model broadened to include authors from a wider range of health disciplines, including clinical and research roles, and coauthors rather than single authors in many topics
Audience broadened from being primarily GPs to the whole primary healthcare team – use of plain language as much as possible
Strengths-based approach and being explicit about what protects, supports and strengthens health and wellbeing, emphasising individual and collective strengths of Aboriginal and Torres Strait Islander people in the way health and healthcare is understood and provided
Key messages for each topic
Changes to the way recommendations are presented, including: • strength of recommendation • naming the type of key source(s) as well as providing the reference(s) • rationale/key considerations informing the recommendation (online version)
Changing recommendations from specific inclusion of preventive activity in annual health checks to recommending timing/interval and/or opportunistically
Increased emphasis on implementation and translation into practice, including in culturally appropriate ways with implementation tips in each topic
Changes to the published formats • a print version, which includes key messages, recommendations and key tables, implementation tips, resources and selected references • an online version, which includes all the above as well as a discussion of the topic, the synthesis of evidence and a full reference list, and presented in a collapse-and-expand format rather than as a digitised document (HTML or PDF)
Expanded environmental recommendations to support referral to environmental support services when available and advocacy in topics where environmental and living conditions strongly contribute to morbidity (environmental attribution). These include childhood and adult kidney disease, ear health and hearing, child anaemia, acute rheumatic fever and rheumatic heart disease, trachoma, cardiovascular disease, asthma, bronchiectasis and climate change



Key changes to existing naming	
National Guide title changed from 'health assessment' to 'healthcare'	In recognition that preventive healthcare (health promotion and disease prevention) is embedded across primary healthcare as well as in dedicated health assessments
'Lifestyle' chapter changed to 'Healthy living and health risks'	The new title is an example of the strengths-based approach. It recognises the contribution of individual behaviours while rejecting the implication of 'lifestyle'; that individuals have full control and responsibility for the factors that influence all behaviours and health risks
New chapter 'Family and child safety'	Strengths-based principles, includes existing topics 'Family abuse and violence' and 'Preventing child maltreatment: Supporting families to optimise child safety and wellbeing'
'Immunisation across the life course' (previously 'Immunisation')	Title changed to reflect expanded scope and moved from the 'Child health' chapter to a standalone topic
'Pneumococcal disease prevention' and 'Influenza prevention'	No longer standalone topics; the content of these topics is included in the 'Immunisation across the life course' and 'Respiratory health' topics
'Suicide: Recognising and responding to risk' (previously 'Prevention of suicide')	Title changed to better reflect where clinicians can effectively offer services/intervene

Chapter 1: Health impacts of racism

Dr Bronwyn Wilkes, Ms Emily Colonna, Associate Professor Katherine Thurber, Professor Raymond Lovett

Key messages

- Race is a social construct – it is not a valid measure of human genetic variation. Although race has no basis in biology, racism has biological consequences for racialised peoples through undermining the determinants of health, and inflicting trauma and stress through racist systems and discrimination.[1]
- One direct pathway between racism and health is through the physiology of stress. Experiencing or anticipating racism activates the fight-or-flight response, as is the case with any threat that a person perceives.[1]
- It is well established that experiences of interpersonal racial discrimination are common among Aboriginal and Torres Strait Islander peoples in everyday life and in healthcare settings.[2–4]
- Eliminating racism requires systems-level reform across the health, legal and other sectors; primary care clinicians and practices can play important roles in the collective effort required to heal from the trauma of racism and prevent its perpetuation.
- It is important for clinicians to understand the impacts of racism on the health of individuals, families and communities.
- An important role for primary healthcare is to provide culturally safe, trauma-informed care that holistically assesses the risk factors experienced by the individual patient, rather than making assumptions based on Aboriginal and Torres Strait Islander identity.
- Although many organisations have issued statements and commitments around racism in healthcare, few have provided substantive guidance on operational steps to address the effects of racism.
- Evidence on the effectiveness of specific interventions to eliminate racism is limited.

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Environmental				
All non-Indigenous healthcare professionals and practice staff	Take actions to improve cultural safety (see Box 1) This includes: • completing appropriate, well-credentialed cultural safety training • demonstrating an ongoing willingness to learn and listen, and a sense of humility • integrating cultural safety into reflective practice and professionalism • identifying and rejecting false assumptions about Aboriginal and Torres Strait Islander peoples • recognising the importance of Aboriginal and Torres Strait Islander cultures in supporting health and wellbeing • recognising that cultural, family, kinship and community commitments and priorities can have equal importance to clinical care considerations for Aboriginal and Torres Strait Islander peoples	Ongoing	Good practice point	Aboriginal and Torres Strait Islander-specific position statement[5] Aboriginal and Torres Strait Islander-specific national guidelines[6] National guideline[7] Aboriginal and Torres Strait Islander-specific national strategy[8]
All primary healthcare practices	Support patients' self-determined decision making Practices may consider adopting the 'Finding your way' shared decision-making model[9]	Ongoing	Good practice point	Aboriginal and Torres Strait Islander-specific national strategy[8] Aboriginal and Torres Strait Islander-specific national guidelines[6] Aboriginal and Torres Strait Islander-specific resource[9]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Environmental (continued)				
All primary healthcare practices	Adopt a trauma-informed approach to care. This includes embedding core trauma-informed values across the practice: • understanding the impacts of trauma on individuals, families and communities • promoting physical, emotional and cultural safety • building and maintaining trust • supporting patient choice and control • integrating care • supporting safe relationship building	Ongoing	Good practice point	Narrative reviews[10–12] Aboriginal and Torres Strait Islander-specific resource[13,14]
All primary healthcare practices	Provide a confidential, culturally safe complaints process to enable patients, families and community members to provide feedback on their experiences This process may enable complaints to be received verbally or in writing	Ongoing	Good practice point	Aboriginal and Torres Strait Islander-specific national guidelines[6] Aboriginal and Torres Strait Islander-specific national strategy[15] Single study[16] National standards[17]
All primary healthcare practices	Monitor, evaluate and act upon institutional racism (refer to Useful resources)	Ongoing	Good practice point	Aboriginal and Torres Strait Islander-specific national guidelines[6] Position paper[18]
All primary healthcare practices	Ensure that healthcare design, services and delivery reflect the priorities of the Aboriginal and Torres Strait Islander communities they serve. This can be achieved by following guidance published by Aboriginal and Torres Strait Islander peak bodies or local communities and developing genuine partnerships with local Aboriginal and Torres Strait Islander organisations	Ongoing	Good practice point	Aboriginal and Torres Strait Islander-specific position statement[5] Aboriginal and Torres Strait Islander-specific national strategy[19]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All people	Where a clinician can demonstrate cultural safety, respect and compassion within the context of trusted relationships, and has the capacity and time to respond appropriately, ask about exposure to racism Responding appropriately includes: • validating the patient's feelings and acknowledging that racism causes stress and trauma • not making comments that are dismissive or trivialise the patient's experience • providing information that empowers the patient to report the racism to an appropriate organisation (eg Human Rights Commission or through the Call It Out register; see Useful resources) • referring to a relevant support service • providing support and information on managing the biophysical impacts of stress that are tailored to the individual	In any healthcare encounter, where appropriate	Conditional	Single study [3] International guideline[20]
All people	Recognise that there are diverse experiences, socioeconomic circumstances and exposure to risk factors and protective factors among Aboriginal and Torres Strait Islander peoples, and address the specific needs of the individual patient	In every healthcare encounter	Good practice point	Single study[21] National standards[17]
Whole patient population	Understand clinical algorithms that include Aboriginal and Torres Strait Islander status in calculating risk are using Aboriginal and Torres Strait Islander status as a proxy for social determinants that do not apply to all individuals	When using clinical algorithms	Conditional	Narrative reviews[22,23] International framework[24]

Box 1. National Health Leadership Forum's statement on culturally safe and responsive care[18]

Cultural safety represents a key philosophical shift from providing a service regardless of difference to care that takes account of people's unique needs. It requires all people to undertake an ongoing process of self-reflection and cultural self-awareness and an acknowledgement of how these impact on interactions and service delivery. Cultural safety is central to Aboriginal and Torres Strait Islander people and their relationships with the health system. Cultural safety describes a state where people are enabled and feel they can access health care that suits their needs, are able to challenge personal or institutional racism (when they experience it), establish trust in services and expect effective, quality care.

Critically, cultural safety does not necessarily require the study of any culture other than one's own: it is essentially about being open-minded and flexible in attitudes towards others. Identifying what makes others different is simple – however, understanding our own culture and its influence on how we think, feel and behave is much more complex, and often goes unquestioned.

Implementation tips

- Integrate reflexive practice into continuing professional development, including reflecting on how your own cultural perspective, privilege, power, assumptions and biases may impact on the delivery of healthcare for Aboriginal and Torres Strait Islander patients, their families and communities.[5] One example of a guide to help you do this is the ' 8 ways' identity mapping exercise: racgp.link/3znXJcM.
- Ensure staff receive training about trauma and its impacts, as well as cultural safety.[13,25]
- Build your practice's capacity to attract, recruit, retain, support and develop Aboriginal and Torres Strait Islander staff, for example using guidance from the Barring Djinang Aboriginal cultural capability toolkit: racgp.link/47q5pI7.
- Check that people know their rights and support them to speak up if their rights are not being respected.[13] For example, refer them to the Human Rights Commission (racgp.link/3XKh0yo) or a racism register (eg 'Call It Out'; racgp.link/3Tunwqw), or offer to register the incident on their behalf. Display posters or other communications materials from antiracism and human rights campaigns, such as 'Call It Out' (racgp.link/3Tunwqw) and 'Racism. It stops with me' (racgp.link/4e7cRKO).
- Build partnerships with Aboriginal and Torres Strait Islander organisations to provide better support, including referrals to programs, and improve culturally safe care.[13]
- Communicate clearly in trauma-informed ways, tailored to the person: use plain English and translators when needed and explain the processes and actions involved in an assessment or treatment, including asking permission before doing anything involving touch. Try to make people feel comfortable, taking time to build trust.[13]
  - Where possible, allow additional time for providing healthcare to people who have experienced trauma (eg Stolen Generations survivors).[13]
  - Be aware that family members may also be experiencing the impacts of trauma and may need support.[13]
  - Be guided by each person as to whether they want to talk about their traumatic experiences (including experiences of racism) and, if people do share their stories, consider how this can be included in their care plan.
  - Validate people's feelings when they share their stories of racism or other trauma. Provide perspective, for example by explaining it is not their fault. Provide tools for empowering and healing. Avoid making dismissive statements about people's trauma.
- Avoid making assumptions about people's needs and health based on race. Treat the specific circumstances and risk factors experienced by the individual patient.
- Support self-determination by engaging meaningfully in shared decision making. For example, use the 'Finding your way' model (racgp.link/3Xp2quR) to guide and improve conversations with Aboriginal and Torres Strait Islander people.

Useful resources

Key guidelines and statements

- CARI guidelines: *Recommendations for culturally safe and clinical kidney care for First Nations Australians* racgp.link/3TuvQq8
- AIDA position statement: *Cultural safety* racgp.link/3MJZLaj
- National Health Leadership Forum: *Position paper on institutional racism* racgp.link/3TtKP3E
- The Royal Australian College of General Practitioners (RACGP) position statement: *Racism in the healthcare system* racgp.link/3MN3G67
- RACGP: *Standards for general practices*, racgp.link/3zle01Z

Reporting racism

- Human Rights Commission racgp.link/3XKh0yo
- Racism. It stops with me racgp.link/4e7cRKO
- Call It Out First Nations racism register racgp.link/3Tunwqw

Addressing racism

- Ending racism video and Check Up tools (Engaged ANU) racgp.link/3zbrQUO
- Antiracism kit (ARK) racgp.link/3zsqC7u
- Guide to bystander intervention (Australian Human Rights Commission) racgp.link/3ZsrdRu
- Bystander anti-racism project (Western Sydney University) racgp.link/3BhAX6I
- Institutional racism matrix template (CSIRO, Australian Health Review) racgp.link/3ZrAcSP (appendix 1)

Culturally safe practice

- AIDA cultural safety training racgp.link/47q5pb5
- Barring Djinang *Aboriginal cultural capability toolkit* racgp.link/47q5pI7
- 'Finding your way' shared decision-making model racgp.link/3Xp2quR
- Systems assessment tool developed by the One21seventy project racgp.link/3XqK7W7

Trauma-informed care

- Healing Foundation factsheets for GPs: *Working with the Stolen Generations* racgp.link/3Xp2rip
- Blue Knot training courses and resources racgp.link/3B9k52k, including information on becoming trauma-informed and talking about trauma racgp.link/3B20fGa
- we al-li culturally informed trauma integrated healing approach training racgp.link/47puyCF
- Closing the Gap Clearinghouse Resource sheet: *Trauma-informed services and trauma-specific care for Indigenous Australian children* racgp.link/3TTaS4L

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Chapter 2: Healthy living and health risks

Healthy eating

Mr Ray Kelly

Key messages

- Fresh unprocessed foods are best; these include vegetables, salads, fruits, lean meats and fish.[1]
- The consumption of traditional foods should be encouraged where possible.
- Food accessibility and food storage issues need to be considered when providing healthy eating advice. Health programs that focus on nutrition education without addressing the social determinants of health will have limited impact.[2,3]
- Unless a person lives on their own, the whole household needs to be considered when providing healthy eating advice. For those with families, meals need to align with what the children and partner are able or willing to eat.[4]
- Referral to an accredited practising dietician can assist patients with complex health issues.
- The number of people who do not meet the recommended daily intake of fruit and vegetables is similar between Aboriginal and Torres Strait Islander people and non-Indigenous Australians.[5]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All people aged under 18 years	Discuss quality of age-appropriate foods consumed by child with at least one parent/carer. Ask how many portions of fruit and vegetables are eaten each day, and advise on healthy portions as per guidelines Consider referral to a dietician if the patient has complex health conditions. See Useful resources	Opportunistically	Conditional	National guideline[1]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural				
All people aged 18 years and over	Discuss the quality of foods consumed Ask how many portions of fruit and vegetables are eaten each day and advise on healthy portions as per guidelines	Opportunistically	Good practice point	National guideline[6]
Families with children	Encourage children to be involved in shopping for/collecting food and in meal preparation to increase engagement and improve knowledge	Opportunistically	Good practice point	Consensus statement[7]
All people aged 18 years and over	Discuss healthy fluid intake: • encourage water as the primary hydration source • reduce/limit drinks containing added sugars, such as sugar-sweetened soft drinks and cordials, fruit drinks, vitamin waters and energy and sports drinks • reduce/limit alcohol intake (refer to Chapter 2: Healthy living and health risks, Alcohol)	Opportunistically	Conditional	National guidelines[1,8]
All people	Provide advice to promote healthy eating as per Australian guidelines, promoting fresh, unprocessed foods Provide advice that caters for the whole family	Opportunistically	Good practice point	Australian guidelines[1]
All people	Encourage the intake of traditional foods or modern formats that replicate the more traditional style of eating	Opportunistically	Good practice point	Cohort studies[4,9,10]
Preventive activity: Environmental				
Health services and practices	Advocate for multifactorial and coordinated community-based interventions to increase access to healthy and nutritious food (eg subsidised healthy food in stores, availability of healthy food within sports settings, community gatherings)	Opportunistically	Good practice point	Systematic review[2]
Health services and practices	Advocate for programs that are not solely focused on nutrition, but work to improve social determinants of health	Opportunistically	Good practice point	Systematic review[2]

Implementation tips

- Staff should undergo training on nutrition to be able to support patients in having a healthy lifestyle.[11] This support should not include actions outside their scope of practice. Care is often multidisciplinary and, given the importance of nutrition on health, nutritional education should be promoted across the entire workforce. The Aboriginal and Torres Strait Islander nutrition workforce is small, so care that brings together cultural and professional knowledge is important and all members of the care team, led by the GP, should be cognisant of the role of nutrition.
- When seeking to discuss the topic of healthy eating with a patient, ask for permission to discuss it first. If approval is provided, ask broader questions initially, such as 'Are you eating well?', and move on to more specific questions if the patient is comfortable with the discussion.
- Community health promotion and education provides the opportunity to improve health literacy. By improving health literacy, patients have a great understanding of the problem and will be able to implement more effective strategies to help achieve their health goals. However, health information in isolation has been shown to not be very effective.
- Staff who are not from an Aboriginal and Torres Strait Islander background should undergo cultural awareness training to improve cultural safety. This should also include understanding their own assumptions and potential bias regarding Aboriginal and Torres Strait Islander peoples.
- Building trusted relationships and providing cultural safety is important in discussions around food intake. Historical distrust of the health system and its role in the Stolen Generations remains an ongoing barrier to discussions on nutrition, particularly for children, with families concerned about judgement and potential impacts on child protection.

Useful resources

Clinical guidelines

- *Australian dietary guidelines* racgp.link/3ZxfbpE
- Australian guide to healthy eating racgp.link/3ZwcJQB

Other resources for health professionals

- Journal articles:
  - Outline for providing better care for Indigenous patients: Type 2 diabetes and indigenous people racgp.link/3XI2FTc
  - Concerns and priorities of Aboriginal and Torres Strait Islander peoples regarding food and nutrition: A systematic review of qualitative evidence racgp.link/4epGvdL
- Seasonal food guide for Australia racgp.link/3XNBQNy

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Chapter 2: Healthy living and health risks

Physical activity and sedentary behaviour

Mr Ray Kelly

Key messages

- Regular physical activity is an important part of maintaining physical and mental health and wellbeing.[1]
- Regular physical activity reduces the risk of many non-communicable diseases, including type 2 diabetes, cardiovascular disease, stroke, dementia and some cancers.[2,3]
- Regular physical activity improves musculoskeletal conditions such as bone health (eg osteoporosis), muscle loss (sarcopenia), risk of falls and obesity, and can have co-benefits, such as reducing pollution (eg active transport).
- All physical activity contributes to health benefits and reduces all-cause mortality.[2,4]
- Long periods of sitting (sedentary time) can reduce the benefits of being physically active.
- Physical activity should be fun, safe and accessible.

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All people	Assess current level of physical activity and sedentary behaviour, including screen time (Box 1), as per the Australian age-appropriate recommendations (see Useful resources, Clinical guidelines) Useful tools for the assessment of physical activity include the General Practice Physical Activity Questionnaire (see Useful resources)	Opportunistically	Good practice point	Australian guideline[5]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural				
All people	Provide targeted age-appropriate advice and written information (see Box 2) Consider the range of social and contextual factors that may uniquely influence an individual's level of physical activity Consider any complications that may restrict mobility (eg back, knee or foot issues, neuropathy) when providing advice on physical activity	Opportunistically	Good practice point	Australian guideline[5]
All people	Encourage active transport, which means physical activity undertaken as a means of transport and not merely as a form of recreation	Opportunistically	Good practice point	Systematic review[6]
All people	Encourage regular weight-bearing and resistance exercise to maintain and increase bone density and muscle mass	Opportunistically	Good practice point	Australian position statement[7]
All people	Encourage adults to reduce the time spent sitting and to break up long periods of sitting with movement Encourage children and young people to limit time spent sitting or lying down (sedentary behaviour), especially in front of screens (see Box 1)	Opportunistically	Good practice point	Australian guideline[5]
Pregnant women	Encourage all women who are pregnant to participate in physical activity to the levels in the Australian guideline recommendations (see Useful resources)	During antenatal visits	Good practice point	Australian guideline and position statement[5,8]
People with diabetes	Provide individualised advice to those on insulin on avoiding hypoglycaemia when exercising (eg adjustment of carbohydrate intake, reduction of insulin dose and choice of injection site) Consider referral to an exercise physiologist for coaching, if available (see Useful resources) Consider any complications that may restrict mobility (eg back, knee or foot issues, neuropathy) when providing advice on physical activity	Opportunistically and as a part of annual diabetes assessment	Good practice point	Australian resource[9]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural (continued)				
People with cardiovascular disease	Advise those with recent acute coronary syndrome event or revascularisation surgery (coronary artery bypass grafting, percutaneous coronary intervention) to participate in a short-term program (up to 12 weeks) of supervised, tailored exercise rehabilitation with an exercise physiologist and/or healthcare team	Opportunistically	Good practice point	Australian guidelines and resource[10,11]
People with other chronic disease, disability, mental health issues and cancer survivors	Recommend commencement of initially low-intensity physical activity, with slow progressions in volume and intensity, for people whose condition is clinically stable Consider referral to an exercise physiologist for coaching, if facilities are available	Opportunistically	Good practice point	Australian guideline[5]
Preventive activity: Environmental				
All people	Refer to appropriate community-based, culturally safe physical activity programs and encourage the use of public facilities that promote activity (eg advocate for increased availability of sports and recreational facilities in remote communities) Encourage health services and workplaces to support physical activity by introducing practical measures such as walking meetings, providing incentives for active transport and making it easier for clients/staff to arrive by foot or bicycle	Opportunistically	Good practice point	Aboriginal and Torres Strait Islander single study[12]

Box 1. Screen time by age

Age	Recommendation
Up to 5 years	For children aged <2 years, no screen time is recommended[13,14] For those aged 2–4 years, screen time should be no more than 1 hour; less is better[13,14]
5–17 years	Children and adolescents should limit the amount of time spent being sedentary, particularly the amount of recreational screen time[15] No more than two hours of recreational screen time per day[16]
18–64 years	Limit sedentary time to 8 hours or less, which includes no more than 3 hours of recreational screen time Break up long periods of sitting as often as possible[16]
≥65 years	

Box 2. Targeted advice: To be age-appropriately adapted

- Provide information about the benefits of physical activity and the harms of sedentary behaviour
- Determine existing preferred physical activities and invite patients to propose new activities
- Ask the patient about the amount/frequency of activity they feel is achievable and set activity goals aiming to achieve Australian guideline recommendations
- Advise gradual introduction and initial light intensity of physical activity, with slow progressions in volume and intensity
- Record activity goals and provide patients with a written copy
- Consider cognitive behavioural support and follow-up
- Consider additional social support (eg buddy system, involvement in a group activity)
- Consider referral to an exercise physiologist for coaching, if available

Implementation tips

- Advice to patients should depend on their individual circumstances; however, targeting known barriers can increase the likelihood of patient success.
- To help attain health goals, referral to an allied health professional is a viable option, including an exercise physiologist or physiotherapist for physical activity, or a podiatrist or physiotherapist for pain and mobility issues. Programs and services provided by other health professionals may be considered, based on their engagement with the Aboriginal and Torres Strait Islander community and history of success in providing improved health outcomes. Always try to find allied health professionals that have a strong history of achieving good health outcomes with Aboriginal and Torres Strait Islander peoples.

Useful resources

Clinical guidelines

- *Australian physical activity and sedentary behaviour guidelines* (racgp.link/3znAvmZ)
- The RACGP: *Smoking, nutrition, alcohol, physical activity (SNAP)* (racgp.link/4e9QfJG)
- The RACGP: *Handbook of non-drug interventions (HANDI)* (racgp.link/3B6Vj2C)

Other resources for health professionals

- UK General Practice Physical Activity Questionnaire (GPPAQ) racgp.link/47rBkrE
- Moving Medicine racgp.link/4e493d8
- BetterHealth Channel: *Physical activity – it's important* racgp.link/4eqwP2E
- Diabetes Australia: *Physical activity and diabetes* racgp.link/3B2I82B
- Department of Health and Aged Care: *Caring for our kids staff resource – healthy eating and physical activity* racgp.link/47q6ks3
- BetterHealth Channel: *Physical activity – overcoming excuses* racgp.link/3B6qzyM
- *Type 2 diabetes and Indigenous people*: *guide to understanding Indigenous perspectives and providing better care for Indigenous patients* racgp.link/3XI2FTc
- Factsheets on screen time and children
  - World Health Organization racgp.link/47uA2fB
  - NSW Government racgp.link/3XIl42c
- World Health Organization: *Promoting physical activity through primary health care: A toolkit* racgp.link/3XKgrEK
- Exercise and Sports Science Australia racgp.link/3XkeywY

Patient resources

- Increasing physical activity – Heart Foundation resources
  - Physical activity, getting started – racgp.link/3Xm9kB0
  - Active families – racgp.link/3ziPNcO
  - Staying active – racgp.link/4gsCB5W
  - Physical activity and exercise – racgp.link/3XN0AUX
- Sitting less – Heart Foundation resources
  - Sit less, move more – racgp.link/3Xvj4ZR
  - Sitting less (adults) – racgp.link/4gqM4uk
  - Sitting less (children) – racgp.link/3XkeUni

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Chapter 2: Healthy living and health risks

Sleep

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Key messages

- Good-quality sleep is fundamental to good health and wellbeing. Sleep affects all mental and physical health conditions, and improving sleep can improve mental and physical health.[1–3]
- Sleep disorders are more common in Aboriginal and Torres Strait Islander populations compared with non-Indigenous Australians.[4,5]
- Sleep disorders are more harmful in populations who experience disadvantage within social determinants of health and for people with chronic conditions.[1,6,7]
- Health literacy in Aboriginal and Torres Strait Islander people cannot be assumed, especially in rural and remote populations.[8]
- Conditions and behaviours that support healthy and good-quality sleep, such as a quiet, calm and a safe sleeping space, may not be accessible or modifiable for everyone and need to be considered in assessing and advising on sleep.[9-11]
- To date, there have been no recommendations about screening for sleep disorders for Aboriginal and Torres Strait Islander people in a primary care setting, which contributes to underdiagnosis of sleep disorders.[12] Asking about sleep should be part of any general health assessment, especially where sleep issues are identified by the patient.
- The use of validated screening tools for obstructive sleep apnoea (OSA)[13] and insomnia[14-17] is recommended, noting few have been specifically validated in Aboriginal and Torres Strait Islander populations.

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All people	Ask about sleep as part of general health and wellbeing assessment	Opportunistically	Good practice point	International position statement[1] Australian review[2]
People with a family history of sleep disorders such as OSA syndrome (OSAS), restless legs syndrome (RLS), non-rapid eye movement (NREM) parasomnias, insomnia	Use early detection strategies and detailed history taking	As clinically indicated when family history of sleep disorders is detected	Good practice point	International position statement[1] Narrative review[19]
Children with snoring or noisy breathing during sleep (see Table 1)	Assess for OSA (see Box 1) Refer to paediatric ear, nose and throat (ENT), sleep or respiratory specialist if apnoea suspected	As clinically indicated	Strong	Paediatric OSA update[16] Single study[20] Recent paediatric OSA and sleep quality studies[21-23]
Adults presenting with snoring, witnessed apnoea by bed partners and/or excessive daytime sleepiness (see Table 1)	Assess for OSA, refer directly for sleep study if the patient qualifies (ie positive result on OSA50, STOP-BANG and Epworth Sleepiness Scale [ESS] score >8) Consider referral to sleep specialist Provide advice on healthy weight and exercise	As clinically indicated	Strong	Narrative review[24] Single study[25]
All people who present with sleep problems **Note sleep disturbance in children is usually reported by parents**	Assess sleep disorders through age-appropriate sleepiness and/or specific sleep-disorder questionnaires for adults, adolescents and children (see Box 1)	As clinically indicated	Good practice point	Aboriginal and Torres Strait Islander-specific studies[26,27] Narrative reviews[13,28] Scoping review[29]
Preventive activity: Behavioural				
All people	Inform and promote good sleep health behaviours (see Box 2) When sleep problems are identified, assess to rule out physiological causes Assess overcrowding, safety of sleep spaces and screen use	Opportunistic and when presenting with difficulties with sleep onset or maintenance	Strong	Narrative reviews[14,15,30] Scoping review[29] Aboriginal and Torres Strait Islander-specific systematic review[21]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural (continued)				
Adults with insomnia	Provide information about healthy sleep behaviours (see Box 2) Assess the use of substances that could affect sleep, including alcohol, drinks containing caffeine/stimulants and recreational drug use Consider referral for cognitive behavioural therapy (CBT) if appropriate and available (see Useful resources)	Opportunistically, when unhealthy sleep behaviours are identified and with presentations of sleepiness	Strong	Single study[31] Aboriginal and Torres Strait Islander-specific study[32] Narrative reviews[14,15] Randomised control trial[33]
Adults with situational factors that commonly affect sleep: • **shift workers** • **pregnant women**	Promote good sleep health behaviours (see Box 2) Refer to a psychologist specialising in behavioural and circadian sleep disorders	Opportunistically and when presenting with fatigue	Strong	Systematic review[34] International consensus statement[35]
Preventive activity: Medication				
All adolescents and adults reporting insomnia (getting to sleep or staying asleep), excessive daytime sleepiness or restless legs	Assess whether pharmacological sleep medication is indicated and optimise medication control (see Useful resources)	When clinically indicated, including physiological sleep disorders (RLS, narcolepsy, NREM parasomnias, circadian rhythm disorders)	Strong	Narrative review[14] Paediatric guide to medication[28,36]
In adults, adolescents and neurodiverse children with poor sleep (see Box 3)	Assess criteria for age-appropriate dosage and timing for prescribing melatonin Note melatonin is accessible for adults aged >55 years over the counter	As clinically indicated	Conditional	Narrative review[37] TGA report[38]
Children with reduced sleep duration or quality who are on track developmentally (typically developing)	Recommend behavioural sleep strategies as first line of treatment Melatonin is not recommended by the Therapeutic Goods Administration (TGA) for sleep problems in typically developing children	As clinically indicated	Strong	Narrative review[28] Scoping review[29] TGA report[38] Single study[39]

Box 1. Assessment: Initial generic screening tools and questionnaires for specific sleep disorders

Screening tools and questionnaires used to screen for and assess symptoms of sleep problems are listed below. Screening is undertaken through clinical interview and the use of questionnaires. Screening questionnaires are either: (i) culturally grounded (CG), that is co-designed with input from Aboriginal and/or Torres Strait Islander stakeholders; (ii) culturally adapted (CA), that is not co-designed but adapted for Aboriginal and/or Torres Strait populations; or (iii) not adapted at all (NA), that is no cultural adaptation for use with Aboriginal and/or Torres Strait Islander populations.

In primary care during clinical history taking, the following tools can be used initially to alert the to generic symptoms of sleep problems or poor sleep health:

Initial generic sleep assessment tools

- General sleep health and sleep behaviours
  - For children: BEARS screening instrument for children[16] (NA)
  - For adults and adolescents: The Sleep Hygiene Index (NA)
  - Let's Yarn About Sleep (CG) (racgp.link/4do82vv) – this was codeveloped with Aboriginal and Torres Strait Islander community members in Queensland
- Sleepiness
  - Pediatric Daytime Sleepiness Scale – visually easy and short screening questionnaires[18] (NA) racgp.link/47rTTvG
  - For adults and adolescents: ESS (NA) racgp.link/47rnTYu
  - For adults and children: Top End Sleepiness Scale (TESS) – more helpful for remote community patients (CG) racgp.link/3ZJuQ5J

Assess sleeping environment, evaluate sleeping and housing arrangements

Screening questionnaires for specific sleep disorders

Subsequent to the initial assessment, the following screening questionnaires can be used to assess for specific sleep disorders:

- Let's Yarn About Sleep: standard sleep diary developed for Aboriginal and Torres Strait Islander youth (CG)
- Let's Yarn About Sleep: sleep health assessment (CG)
- The Sleep Disturbance Scale for Children and Adolescents (NA) and a version for preschoolers (NA)
- For adult OSA and sleep breathing disorders: STOP-BANG OSA screening questionnaire (NA) racgp.link/3XpyT45
- For adults: Insomnia Severity Index, recognised as a diagnostic tool for insomnia severity (NA), and the Screening Condition Indicator (NA) racgp.link/3XpXjuw

Box 2. Advice for healthy sleep behaviours (also called 'sleep hygiene')

Note, many of these factors are inter-related.

Physiological risk factors

- Avoid caffeine, tobacco and alcohol within four hours of going to bed
- Manage/aim for healthy weight and diet[1]
- Treat comorbid conditions (eg asthma, allergies)
- Minimise light exposure to the eyes in the evening and maximise light exposure in the morning[2]

Psychological risk factors

- Monitor sleepiness, discuss sleep-related concerns and seek help
- Treat comorbid mental health issues
- Practice stress reduction techniques (eg breathing, relaxation, mindfulness)

Behavioural/lifestyle solutions

- Keep bedtimes and wake times consistent across weekdays and weekends; do not sleep in more than 1.5–2 hours on weekends (particularly adults and adolescents)
- Exercise daily; note, if exercising outside, morning light exposure supports good sleep[1,2]
- Avoid screens, particularly tablets and mobile phones, for at least one hour before bed
- Develop calming and consistent bedtime routines, especially in children[2]

Situational

- Plan scheduled napping for shift work
- Plan power naps if they are/you find them beneficial
- Ensure safe, quiet and darkened rooms for children's sleep[2]

Social determinants/psychosocial solutions

- Check for safe sleeping in infants and toddlers[2]
- Seek safe sleep spaces
- Consider family and kinship needs

Box 3. Factors contributing to poor sleep health/sleep disorders and reduced sleep duration

Physiological factors

- Family history (OSAS, RLS or insomnia)
- Neurodevelopmental disorders (eg autism spectrum disorders, attention deficit hyperactivity disorder, some chromosomal syndromes)
- Eczema, asthma, allergies
- Chronic health conditions (eg depression, diabetes, obesity)
- Enlarged tonsils and/or adenoids in children (OSA)

Psychological factors

- Emotional and financial stress
- Poor mental health, especially anxiety, depression and suicidality
- Parenting style and individual temperaments

Behavioural/lifestyle factors

- Irregular bed and wake times
- Reduced exercise
- Reduced sunlight exposure, especially in the morning
- Caffeine and alcohol close to bedtime
- Excessive screen use and exposure to bright lights at night or before bedtime
- Eating large meals close to bedtime

Situational factors

- Shift work
- Pregnancy

Social determinants/psychosocial factors

- Remoteness
- Racism and dispossession
- Overcrowded housing
- Socioeconomic status
- Lack of safe and clean sleeping spaces
- Lack of culturally specific diagnostic and management pathways

Table 1. Common sleep disorders in the general population[21,24,40]

Sleep disorder	Approximate prevalence in typically developing (ie developmentally on track) individuals (%)			
	Children	Adults	Aboriginal and Torres Strait Islander children[A]	Aboriginal and Torres Strait Islander adults[A]
OSA	1–5	1–5	6–51	39–46
Insomnia	20–30	30–35	30–35	15–41
RLS	1–3	14–20	Unknown	Unknown
Periodic limb movement disorder	Rare	4–11	Unknown	Unknown
Narcolepsy	0.002	0.5–3	Unknown	Unknown
Parasomnias (sleepwalking, night terrors)	14–16	1.7	Unknown	Unknown
Rhythmic movement disorders (eg rocking, head banging)	2–19	Rare	Unknown	Unknown
Circadian rhythm disorders	5–60	10–50	Unknown	Unknown

[A] Note, based on limited data in Aboriginal and Torres Strait Islander populations.

OSA, obstructive sleep apnoea; RLS, restless legs syndrome.

Useful resources

Resources are marked as either CG (culturally grounded), CA (culturally adapted) or NA (not adapted).

Although there is generally a lack of CG resources for the screening and diagnosis of sleep issues in Aboriginal and Torres Strait Islander people, the Let's Yarn About Sleep program has developed a suite of screening and educational resources publicly available through the program website (letsyarnaboutsleep.org) and the Sleep Health Foundation (racgp.link/3TrEhm8).

Patient and family resources

- Relaxation at bedtime (CG) racgp.link/4e2IMvz
- Let's Yarn About Sleep (CG) racgp.link/4do82vv
- Sleep Health Foundation (NA) racgp.link/4e5ThhK
- Raising Children website (CA) racgp.link/3TxhEN7
- Parenting SA (CA) racgp.link/3B2J0UV
- Sleep health primary care resources (NA) racgp.link/4e49Pa2
- Sleep Diary racgp.link/3ZXqtE3

Other resources

- *Medical Journal of Australia* special issue: Sleep disorders: A practical guide for Australian health care practitioners (NA) racgp.link/4epGXJe
- Australian Sleep Association resources for health professionals (endorsed as 'accepted clinical resource' by the RACGP) racgp.link/4erzI3w

- Primary care resources for OSA racgp.link/4epI8YV
  - On-the-spot management of OSA in adults (NA) racgp.link/4esHeep
  - Pharmacological therapy racgp.link/3MK24tZ
  - Chronic insomnia/insomnia disorder resources (NA) racgp.link/3zIs8Iy
  - Primary care resources for insomnia racgp.link/3N7lcSV
  - Cognitive behavioural therapy for insomnia (CBT-i) racgp.link/3zmpp1K
  - Sleep resources for school-aged children racgp.link/3XKvHSc.
- List of psychologists specialising in behavioural management of sleep disorders (sleep psychology) from the Australasian Sleep Association racgp.link/3NgnvTo

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Chapter 2: Healthy living and health risks

Smoking

Professor David Thomas

Key messages

- The harms of smoking and the benefits of smoking cessation are well established.[1]
- National Aboriginal and Torres Strait Islander smoking prevalence is high, but is decreasing.[2]
- Health practitioners play an important role in supporting public health approaches to reduce smoking prevalence by delivering screening, medications and behavioural support for smoking cessation.[3]
- There is strong support for more culturally appropriate approaches to smoking prevention and cessation.[4]
- Although culturally adapted smoking cessation services are preferred, other services are also effective and can be recommended.[4]
- There is strong evidence for behavioural support and use of medications to support cessation among adults.[5]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
People aged 10 years and over	Ask all patients if they smoke tobacco and record/update smoking status in their clinical record	Opportunistically Review smoking status at least annually for people who smoke or who have recently quit	Strong	National guideline[3]
Parents and carers of children aged 15 years and under	Ask parents and carers if they smoke, and smoke inside the home or car, and advise about harms of second-hand smoke to children	Opportunistically	Good practice point	National guideline[3]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural				
Adults who smoke	Advise all adults who smoke to quit and on the most effective methods to quit	Opportunistically, whenever possible	Strong	National guideline[3]
Young people aged 11–17 years	Advise all young people who do not smoke to not start smoking There is insufficient evidence to recommend behavioural cessation support to young people	Opportunistically	Strong	National guideline[3]
Adults who smoke	Help adults to quit by recommending multi-session behavioural support using individual or group counselling, Quitline, text messaging (eg QuitTxt), internet programs (eg QuitCoach or iCanQuit) or incentives for cessation support	Opportunistically following brief advice	Strong	National guideline[3]
Preventive activity: Medication				
Non-pregnant adults who smoke	Help non-pregnant adults to quit by recommending smoking cessation pharmacotherapies If nicotine-dependent, the most effective pharmacotherapies are combination nicotine replacement therapy (NRT; patch and oral) and varenicline; single-form NRT and bupropion are also effective	Opportunistically following brief advice	Strong	National guideline[3]
Non-pregnant adults who smoke	If the above pharmacotherapies are unsuccessful, consider the use of nicotine e-cigarettes after discussion of the lack of information about the long term risks of e-cigarettes	After unsuccessful use of other smoking cessation pharmacotherapies	Conditional	National guideline[3]
Pregnant and breastfeeding women who smoke	If behavioural support is not successful, consider NRT after explaining the risks and benefits. Intermittent use formulations such as gum, lozenges, inhaler or tablets rather than continuous use patches are preferred. **Do not** use varenicline or bupropion in pregnant or breastfeeding women	At each pregnancy care visit	Conditional	National guideline[3]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medication (continued)				
Young people aged under 18 years who smoke	There is insufficient evidence to recommend the use of NRT in children and young people aged under 18 years who smoke **Do not** use varenicline or bupropion in people aged under 18 years	N/A	Good practice point	Systematic review[6]
Preventive activity: Environmental				
All people	Complement the above individual-based preventive activities with support for comprehensive public health approaches to smoking prevention; for example: • marketing and messaging, including posters and displays at the health service, community organisations and events • smoke-free rules at the health service, community organisations and events, and smoke-free homes and cars • restricting the activities of the tobacco industry	Opportunistically	Strong	National strategy[7]

Implementation tips

- Ensure training and systems to support the AAH (Ask, Advise, Help) approach to smoking cessation:
  - ensure smoking status is recorded and updated in the patient's medical record (Ask)
  - ensure staff are trained in brief advice and pathways for referral for behavioural support and medication (Advise and Help).
- Use Australian guidelines to ensure the appropriate use of smoking cessation medication.[3]
- Use the tobacco control continuous quality improvement guide to improve the comprehensive approach to tobacco control at the health service (see Useful resources).[8]
- Support and do not stigmatise people who smoke; the blame lies with transnational tobacco corporations, which have promoted, manipulated and profited from this product they know kills millions every year.

Useful resources

Clinical guidelines

- RACGP: *Supporting smoking cessation: A guide for health professionals* – Australian guidelines for smoking cessation (last updated in 2021) racgp.link/4e29kNz

Other resources for health professionals

- Tackling Indigenous Smoking Resource and Information Centre: detailed information on tobacco control resources, publications, programs and projects for Aboriginal and Torres Strait Islander communities racgp.link/3Zwelo1
- Aboriginal Medical Services Alliance Northern Territory: *The Tobacco Control Guide* – a continuous quality improvement guide to improve the comprehensive approach to tobacco control in health services racgp.link/3B6oNO7
- Australian Government smoking, tobacco and vaping website: provides quitting information, apps, factsheets and details of media campaigns, including specific Aboriginal and Torres Strait Islander resources racgp.link/47xiMWP
- Cancer Council Victoria: *Tobacco in Australia: Facts and issues* – a regularly updated comprehensive review of the major issues in smoking and health in Australia racgp.link/4do8Pwt

Patient resources

- Quitline: telephone 13 7848 or 13QUIT or go online (racgp.link/47rhiNW) to arrange a free call back and follow-up telephone calls
- QuitTxt: behavioural support to quit by text messages www.quitcoach.org.au/QuitTextInformation.aspx
- QuitCoach: personalised behavioural support from the internet, supported by Quit Victoria racgp.link/4e9TKzB
- iCanQuit: behavioural support from the internet, supported by the New South Wales Government racgp.link/4e55Gm3
- iSISTAQUIT: resources to support Aboriginal and Torres Strait Islander pregnant women to quit smoking racgp.link/47q0wyJ

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Chapter 2: Healthy living and health risks

Vaping

Professor David Thomas

Key messages

- The prevalence of e-cigarette use in Australia is increasing, especially among young adults, and the Australian e-cigarette market is evolving rapidly, with most now using newer disposable e-cigarette devices with higher concentrations of nicotine.[1]
- State, territory and Commonwealth governments have introduced varied and evolving legislation to restrict the sale, use and possession of e-cigarettes.[2]
- The lack of evidence about the impact of e-cigarettes on health outcomes does not mean that e-cigarettes are harmless, just that there is insufficient evidence yet about their safety and harms.[3]
- There is almost no high-quality research evidence about what works to prevent patients from starting to vape e-cigarettes or to help patients quit vaping. This will change as researchers catch up.
- Guidance on the use of e-cigarettes to assist smoking cessation is provided in Chapter 2: Healthy living and health risks, Smoking.
- This topic uses the generic terms 'vaping' and 'e-cigarettes' and does not discuss heat-not-burn cigarettes, because they are effectively illegal in Australia and their use is rare.[2]

Recommendations*

* These recommendations apply to any electronic cigarette that heats a liquid to produce an aerosol that can be inhaled and exhaled. This does not include heat-not-burn cigarettes, which are illegal in Australia.

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
People aged 10 years and over	Ask all patients whether they vape e-cigarettes and record vaping status in the clinical record (except in areas where vaping is uncommon)	Opportunistically	Good practice point	Position statement[4,5]
Preventive activity: Behavioural				
Young people aged 11–17 years	Advise all children who do not vape to not start vaping (except in areas where vaping is uncommon)	Opportunistically	Good practice point	International guideline[6]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural (continued)				
Adults who vape but do not smoke	Advise all adults who vape but do not smoke to quit vaping	Opportunistically	Good practice point	Position statement[5]
Adults who vape and smoke	Advise all adults who vape and smoke to quit smoking, and then quit vaping as soon as they can to prevent going back to smoking	Opportunistically, whenever possible	Good practice point	International guideline[6]
Preventive activity: Medication				
Adults who vape	There is insufficient evidence to recommend the use of smoking cessation pharmacotherapies (nicotine replacement therapy [NRT], varenicline and bupropion) to help with vaping cessation	N/A	Good practice point	
All people	Complement the above individual-based preventive activities with support for public health approaches to vaping prevention; for example: • effectively banning sales to minors • banning flavours that appeal to young people • public education campaigns about vaping • including vaping in smoke-free rules and laws	Opportunistically	Good practice point	Position statement[4]

Implementation tips

- Use discussions about e-cigarettes and vaping as an opportunity to talk about the harms of smoking and the benefits of quitting smoking.
- Respond to community concerns about vaping with evidence, avoiding overstatement. Monitor and critically appraise the emerging research evidence.
- Contribute to discussions about the emerging public health response to e-cigarettes.
- Avoid all contact with tobacco companies, even when they claim to be shifting away from cigarettes.
- In some remote areas where there is as yet no vaping, it may be best to not mention vaping (including vaping cessation and preventing vaping uptake), because this may inadvertently increase curiosity about e-cigarettes.

Useful resources

Other resources for health professionals

- Quitline: telephone 13 7848 or 13QUIT or go online (racgp.link/47rhiNW) to arrange a free call back and follow-up telephone calls
- National Health and Medical Research Council (NHMRC): The *2022 CEO statement on electronic cigarettes* and associated literature reviews summarise the latest evidence about the harmful effects of e-cigarettes racgp.link/3XrZJbR
- Cancer Council Victoria: *Tobacco in Australia: Facts and issues* is a regularly updated comprehensive review of the major issues in smoking and health in Australia (racgp.link/4do8Pwt), with an in-depth discussion of e-cigarettes (racgp.link/3B2SHmp)

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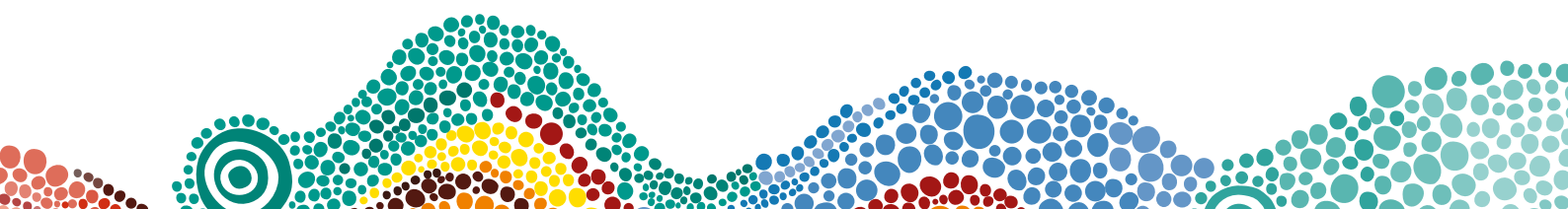

Chapter 2: Healthy living and health risks

Alcohol

Dr Marguerite Tracy

Key messages

- In Australia, alcohol is the leading cause of loss of healthy life for all people aged 15–44 years.[1]
- There are no clear physical health benefits from alcohol, including at low levels of consumption.[2]
- The amount of and regularity with which alcohol is consumed vary across individuals and communities. Assuming a regular pattern of alcohol use may underestimate alcohol use in some communities of Aboriginal and Torres Strait Islander people.[3]
- Current Australian guidelines (2020) for harm minimisation from alcohol make recommendations for three distinct groups of people (adults; children and people aged under 18 years; and women who are pregnant or breastfeeding),[2] including:
  - a maximum of four standard drinks per drinking day
  - no more than 10 standard drinks across the week (previously 14 drinks per week)
  - there is no safe level of drinking during preconception, pregnancy and breastfeeding
  - no alcohol for those aged under 18 years.
- Opportunistic screening for hazardous or harmful alcohol use and alcohol dependence is recommended using validated screening tools such as the Alcohol Use Disorders Identification Test – Consumption (AUDIT-C) and Indigenous Risk Impact Screen (IRIS).[4]
- Brief intervention and further support are the next steps when screening identifies a person who is drinking alcohol with a high risk of harms.[5]
- Highlighting the benefits of not consuming alcohol may be more helpful for some people than emphasising the negative consequences of consuming alcohol.

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Immunisation				
All people	Check vaccination eligibility for hepatitis B and A according to the *Australian immunisation handbook* Recommend vaccination for eligible people	Opportunistically	Strong	National guideline[6]
Preventive activity: Screening				
Adults aged over 18 years	Ask about alcohol use and use a validated screening tool (eg AUDIT-C or IRIS) that detects hazardous, harmful alcohol use and[2] dependence (see Box 1)	Opportunistically	Strong	National guidelines[2,5,7] Aboriginal and Torres Strait Islander-specific resource[7]
Preventive activity: Behavioural				
Children aged 12–17 years	Discuss alcohol use with young people and use a validated tool, such as HEEADSSS (Home, Education/ Employment, Eating/Exercise, Activities, Drugs and alcohol, Sexuality, Suicide and depression, Safety) assessment[8] If appropriate, use CRAFFT (Car, Relax, Alone, Forget, Friends, Trouble) as a further assessment for risk of harms (see Box 2) Advise not to drink alcohol to reduce the risk of injury and other harms	Opportunistically	Good practice point	National guidelines[2,5] Aboriginal and Torres Strait Islander-specific resource[7]
Adults aged over 18 years	Provide information on how to reduce the risk of harm from alcohol-related disease or injury (see Box 3), including the risk of prenatal exposure to alcohol during pregnancy	Opportunistically	Good practice point	National guidelines[2,5] Aboriginal and Torres Strait Islander-specific resource[7]
Women considering pregnancy, pregnant and who are breastfeeding	Recommend abstinence from alcohol (see Box 3)	Opportunistically	Strong	National guideline[2] Aboriginal and Torres Strait Islander-specific resource[7]
For those identified at risk of harm from alcohol	Provide a brief intervention to individuals who are drinking above National Health and Medical Research Council (NHMRC)-recommended guidelines (eg using the FLAGS [Feedback, Listen, Advice, Goals, Strategies] framework; see Box 4)	Opportunistically, following screening	Strong	National guideline[2] Aboriginal and Torres Strait Islander-specific resource[7]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural (continued)				
Children aged 12–17 years and their carers	Recommend abstinence from alcohol (see Box 3)	Opportunistically	Good practice point	National guideline[2] Aboriginal and Torres Strait Islander-specific resource[7] Single study[8]
Preventive activity: Environmental				
All people	Support people and their community to be involved in decisions regarding access and use of alcohol where they live	Opportunistically	Good practice point	Aboriginal and Torres Strait Islander-specific consensus statement[9] Aboriginal and Torres Strait Islander-specific individual study[10]
All people	Provide access to culturally safe screening, assessment and care	Opportunistically	Good practice point	Aboriginal and Torres Strait Islander-specific individual studies[11-13]

Implementation tips

- Use simple messaging around the benefits of not drinking alcohol and the potential harms of drinking alcohol.
- Visual aids can be useful in communicating risks from consuming alcohol, such as the University of Sydney Alcohol Awareness kit and the University of Sydney alcohol booklet (racgp.link/4e45rIa).
- Remember to ask about sharing of alcohol and dry periods when you are assessing drinking. Because some people will only be episodic drinkers, and may not consider themselves a 'drinker', check about drinking during special occasions in the past year.
- Be sensitive to internalised shame around drinking.
- Staff training and support, and service-wide action to improve alcohol care, may assist with the implementation of screening.

Useful resources

Clinical guidelines

- NHMRC: *Australian guidelines to reduce health risks from drinking alcohol* racgp.link/3zlsVt0
- Guidelines for the treatment of alcohol problems racgp.link/3MIpGPA
- Guidelines for the Treatment of Alcohol Problems: Chapter providing guidance on managing unhealthy alcohol use among Aboriginal and Torres Strait Islander peoples racgp.link/3MMLf1i

Other resources for health professionals

- Department of Health and Ageing: *Talking about alcohol with Aboriginal and Torres Strait Islander patients*, third edition – a flipchart that includes tear-off prescription pads racgp.link/3BewGku
- University of Sydney: Handbook for Aboriginal alcohol and drug work racgp.link/4d6MgMj
- Department of Health and Aged Care: Australian standard drink definition and calculator racgp.link/4dBLilh

Professional development

- World Health Organization (WHO): *WHO alcohol brief intervention training manual for primary care* racgp.link/3ZrDkhx

Tools

- AUDIT-C racgp.link/4e2KvB3
- Queensland Health: IRIS and other screening tools racgp.link/3MIpL5Q, racgp.link/3MNZVgS
- The CRAFFT substance use screening tool racgp.link/4eyo8nf
- Substances & Choices Scale and Brief Intervention (SACS-ABC) (New Zealand) racgp.link/3Zpfi6G

Box 1. AUDIT-C screening questionnaire and scoring

Reproduced from Bradley et al.[4]

AUDIT-C screening questionnaire

1. **How often do you have a drink containing alcohol?**
- Never (0 points)
- Monthly or less (1 point)
- Two to four times a month (2 points)
- Two to three times a week (3 points)
- Four or more times a week (4 points)

2. **How many drinks containing alcohol do you have on a typical day when you are drinking?**
- One or two (0 points)
- Three or four (1 point)
- Five or six (2 points)
- Seven to nine (3 points)
- 10 or more (4 points)

3. **How often do you have six or more drinks on one occasion?**
- Never (0 points)
- Less than monthly (1 point)
- Monthly (2 points)
- Weekly (3 points)
- Daily or almost daily (4 points)

The AUDIT-C, a WHO-approved instrument, is scored on a scale of 0–12, with a score of 0 reflecting no alcohol use. Scores of 4 or more in men and 3 or more in women are considered positive for identifying hazardous drinking or active alcohol use disorders. Generally, the higher the AUDIT-C score, the more likely it is that the patient's drinking is affecting their health and safety.

Box 2. The CRAFFT questions

Reproduced from Knight et al.[14]

C Have you ever ridden in a *car* driven by someone (including yourself) who was "high" or had been using alcohol or drugs?

R Do you ever use alcohol or drugs to *relax*, feel better about yourself, or fit in?

A Do you ever use alcohol or drugs while you are by yourself, *alone*?

F Do you ever *forget* things you did while using alcohol or drugs?

F Do your family or *friends* ever tell you that you should cut down on your drinking or drug use?

T Have you ever gotten into *trouble* while you were using alcohol or drugs?

Box 3. Guidelines to reduce health risks from alcohol

Reproduced from the 2020 *Australian guidelines to reduce health risks from drinking alcohol*.[2]

The Australian (2020) guidelines for reducing harms from alcohol are as follows:

Guideline 1: For adults

- To reduce the risk of harm from alcohol-related disease or injury, healthy men and women should drink no more than 10 standard drinks a week and no more than four standard drinks on any one day. (One standard drink contains 10 g of pure alcohol.)
- The less you drink, the lower your risk of harm from alcohol.

Guideline 2: For children and people aged under 18 years

- To reduce the risk of injury and other harms to health, children and people aged under 18 years should not drink alcohol.

Guideline 3: For women who are pregnant or breastfeeding

- To prevent harm from alcohol to their unborn child, women who are pregnant or planning a pregnancy should not drink alcohol.
- For women who are breastfeeding, not drinking alcohol is safest for their baby.

Box 4. FLAGS framework for alcohol brief intervention

Adapted from Haber and Riordan.[5]

Feedback	• Provide individualised feedback on any harms experienced and the risks associated with continued drinking, based on current drinking patterns, problem indicators and health status • Discuss the potential health problems that can arise from risky alcohol use
Listen	• Listen to the patient's response • This should spark a discussion of the patient's consumption level and how it relates to general population consumption and any false beliefs held by the patient
Advice	• Give clear advice about the importance of changing current drinking patterns and a recommended level of consumption • A typical 5- to 10-minute brief intervention should involve advice on reducing consumption in a persuasive but non-judgemental way • Advice can be supported by self-help materials, which provide information about the potential harms of risky alcohol consumption and can provide additional motivation to change
Goals	• Discuss the safe drinking limits and assist the patient to set specific goals for changing patterns of consumption • Instil optimism in the patient that their chosen goals can be achieved • Use motivation-enhancing techniques to encourage patients to develop, implement and commit to plans to stop drinking
Strategies	• Ask the patient to suggest some strategies for achieving their goals. This approach emphasises the individual's choice to reduce drinking and allows them to choose the approach best suited to their own situation. The individual might consider setting a specific limit on alcohol consumption, learning to recognise the antecedents of drinking and developing skills to avoid drinking in high-risk situations, pacing one's drinking and learning to cope with everyday problems that lead to drinking

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Chapter 2: Healthy living and health risks

Gambling

Dr Nicola Coalter, Mr Ashley Gordon

Key messages

- Gambling and gaming disorders are recognised as behavioural addictions and are included in the World Health Organization's International classification of diseases 11th revision (ICD-11).[1]
- In addition to harmful forms of gambling, including pokies, casino games, race betting and sports betting, a convergence of gaming and gambling products has given rise to a critical consumer vulnerability.[2] Simulated gambling is now common in computer games with gambling components, such as loot boxes and social casino games where real money can be spent.
- Ongoing participation in gambling or gaming can lead to addiction and harm.[2] Approximately 25–35% of Aboriginal and Torres Strait Islander people currently gamble at harmful levels, and many are also harmed by other people's gambling.[3,4] However, few people seek professional help.
- There is little understanding of what constitutes 'best practice' in gambling harm reduction for Aboriginal and Torres Strait Islander peoples, families and communities. Research indicates that Aboriginal communities respond better to Aboriginal-owned and -operated organisations.[5,6]
- Primary healthcare is often someone's first contact with the healthcare system.[7] Because people generally trust relationships with healthcare professionals, research suggests this setting is essential for gambling screening and referral for treatment.[7]
- The use of a validated screening question can identify people experiencing gambling harm, initiate a conversation and empower people to talk about their gambling safely.
- Shame, stigma and lack of awareness of available support services are barriers to seeking help. When help is sought for gambling problems, it is primarily informal (eg seeking family support[8]). Therefore, screening for gambling harm can identify people who may have associated comorbidities and/or benefit from referral to services.[9]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All people aged 12 years and over	Ask patients if they participate in gambling or gaming activities (eg sports betting, wagering, card playing, pokies, casino gambling, online gambling/gaming, gaming). This enables people to talk about gambling safely Ask patients the screening question, 'In the past 12 months, have you or someone close to you had any issues with gambling?' If harm is identified, consider most appropriate referral option (see Useful resources)	Opportunistically	Good practice point	Screening tool and training pilot[9] National guideline[10]
Children who are in the care of people who are experiencing gambling harm	Assess wellbeing and safety (see Chapter 4: Child and family safety)	Opportunistically	Good practice point	Systematic review[11]
Preventive activity: Behavioural				
All people with 'at-risk' gambling/ problem gambling	Consider management options for problem gambling, including: • brief intervention and motivational interviewing aimed at supporting behaviour change • cognitive behavioural therapy • treatment of co-occurring and complicating factors such as depression and substance use • referral to gambling support helplines and websites (see Useful resources) • referral to non-specialised gambling support (eg financial counselling and support, legal support services; see Useful resources) • referral to specialised gambling treatment (see Useful resources)	As clinically indicated	Good practice point	Systematic review[12]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Environmental				
Community groups and schools	Encourage teachers, parents and healthcare professionals to be more aware of adolescent gaming and gambling through the implementation of school-/sports-based gambling prevention strategies	Opportunistically	Good practice point	Literature review and gap analysis[13] Single study[14]
Community based	Engage in community-focused activities (eg community-driven campaigns) that promote safer gambling strategies and rules	Opportunistically	Good practice point	Aboriginal and Torres Strait Islander-specific project report[15] Aboriginal and Torres Strait Islander-specific health promotion framework[16]

Implementation tips

- Provide staff training about gambling harm: health professionals outside of gambling help services are more likely to be the first point of contact for people seeking help for problems relating to harmful gambling.
- Invest in strengthening referral pathways between health services and non-specialised and specialised gambling support and treatment services.
- Provide staff training about cultural awareness and cultural safety training. Each community is culturally unique; therefore, ongoing commitment to deepening cultural awareness and staff competency is essential to build an understanding of gambling and gambling harm for Aboriginal and Torres Strait Islander people.
- Ensure staff understand the screening question, use it and know about available referral services.
- Clinical audits could include reviewing the completion of the gambling screening question in annual health checks and whether there was appropriate follow up or referral.
- People with a high level of distress (eg Kessler Psychological Distress Scale [K10] results) could be experiencing gambling harm; therefore, this is an opportunity for screening and making appropriate referrals for patients to non-specialised or specialised gambling help services.
- Consider the promotion of gambling harm awareness within the service by displaying gambling health promotion materials, including signs of harmful gambling.
- Promote gambling support services within the health service by providing information on non-specialised and specialised gambling services (eg financial wellbeing/counselling).

Useful resources

Clinical guidelines

- Monash University, Problem Gambling Research and Treatment Centre (PGRTC): *Guideline for screening, assessment and treatment in problem gambling* racgp.link/4d69Tow
- Victorian Responsible Gambling Foundation: *Gambling guidelines to help avoid harm* racgp.link/4gstXEs
- *Reducing gambling harm in First Nations communities – a guide for health workers* racgp.link/3ZmQXyB

Self-help tools

- Reset app: An app that supports people who want to reduce gambling https://resetapp.com.au/
- The 100-Day Challenge: A program to support people who want to reduce gambling https://www.100dc.com.au/

Education and training

- Mental Health First Aid: Talking about gambling with Aboriginal and Torres Strait Islander people racgp.link/3Zl6O0x
- Victorian Responsible Gambling Foundation: Screening and supporting patients with gambling harm racgp.link/47rqMsq

Community resources and services

- First Nations Gambling Awareness Program racgp.link/4goLUng
- NSW Aboriginal Safe Gambling Services, which is owned and staffed by Aboriginal people racgp.link/3ZJxsR5
- Gambling Help Online: Online counselling, information and support service for problem gambling issues racgp.link/4eX8EZW
- Gambler's Help: Contact details for local face-to-face counselling and support racgp.link/4gu8sTQ
- Gamblers Anonymous Australia racgp.link/3znnt98
- Money Smart – Indigenous: Money tips and resources for Aboriginal and Torres Strait Islander people racgp.link/3B2TRyh

National telephone counselling services:

- Gambling Help Online 1800 858 858
- National Debt Helpline 1800 007 007
- Gambler's Help Youthline 1800 262 376
- 13YARN (crisis support service for Aboriginal and Torres Strait Islander people) 13 92 76

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Chapter 3: Immunisation across the life course

Dr Caitlyn White, Ms Belinda Hammond

Key messages

- Vaccination delivers one of the most effective preventive public health strategies against disease and death.[1,2]
- Ensuring culturally safe health service provision will help optimise immunisation coverage and protection against vaccine-preventable diseases in Aboriginal and Torres Strait Islander people across the life course.[3,4]
- Improving timely immunisation in childhood, as per the National Immunisation Program (NIP) schedule, will help reduce the greater burden of infectious disease experienced by young Aboriginal and Torres Strait Islander children.[4–7]
- Immunisation providers should aim to vaccinate at the earliest appropriate age for recommended immunisations to ensure on-time vaccination.[6]
- In addition to recommendations for the whole population, some vaccines are recommended for Aboriginal and Torres Strait Islander people only. Of these, some are funded and included on the NIP schedule or funded by local jurisdictions and included in state/territory schedules. Others are recommended but not funded and should be administered where possible.[1,2]
- Checking vaccination status on the Australian Immunisation Register (AIR) and assessing whether a person is recommended for immunisation based on age, risk conditions or other factors should form part of the annual Aboriginal and/or Torres Strait Islander health check.
- Strategies to address the social and environmental determinants of health go hand-in-hand with immunisation as key strategies to reduce rates of infectious diseases.[8]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Immunisation				
All children	Conduct regular reviews of all infants and children and recommend vaccination	As per the NIP schedule and relevant state and territory immunisation schedules for Aboriginal and Torres Strait Islander children	Strong	National schedule[9] National guideline[10]
All people from 6 months of age	Recommend influenza vaccination	Annually	Strong	National schedule[9] National guideline[10]
Pregnant women	Recommend influenza and diphtheria–tetanus–acellular pertussis (dTpa)* vaccination	Influenza: at any stage of pregnancy dTpa: between 20 and 32 weeks gestation (but may be given up until baby is born)	Strong	National schedul [9] National guideline[10]
All people	Check COVID-19 immunisation status and eligibility. Recommend COVID-19 vaccination as per current guidelines	Opportunistically	Strong	Resource[11]
Preventive activity: Screening				
All people	Ask whether a person identifies as Aboriginal and/or Torres Strait Islander by asking 'Are you of Aboriginal and/or Torres Strait Islander origin?', and record appropriately in the patient record	On first visit if not documented in the patient record and/or before any immunisation appointment	Strong	National guideline[10] Aboriginal and Torres Strait Islander-specific national standards[12]
All children	Review vaccination history on the AIR. If overdue for vaccinations, discuss, plan and document a catch-up schedule	Before giving vaccinations, in scheduled developmental and annual health checks and opportunistically	Strong	National schedule[9] National guideline[10]
All adolescents	Review vaccination history on the AIR to identify any vaccinations missed in school-based programs. If overdue for vaccinations, discuss, plan and document a catch-up schedule	Opportunistically	Strong	National schedule[9] National guideline[10]
All adults	Review vaccination history on the AIR and determine eligibility for adult vaccinations based on age, risk factors and previous immunisation history (eg pneumococcal, zoster, hepatitis B)	Opportunistically	Strong	National schedule[9] National guideline[10]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Environmental				
Health services and practices	Determine which patients at your practice are overdue for vaccination by generating reports from the AIR and reviewing against patient records Correct any errors in vaccination recording that are identified, and actively follow-up patients who are overdue	Ongoing	Good practice point	National guideline[13] National resource[14]
Health services and practices	Offer opportunistic vaccination and through alternative models of service delivery, such as home visits, flexible appointments and mobile clinics	Ongoing	Good practice point	Community-based study[15] Aboriginal and Torres Strait Islander-specific community-based study[1] Aboriginal and Torres Strait Islander-specific cohort study[16] Aboriginal and Torres Strait Islander-specific single study[17] Cohort study[3]
Health services and practices	Offer practical support to attend for vaccination appointments, such as transport	Ongoing	Strong	Aboriginal and Torres Strait Islander-specific community-based study[3] Aboriginal and Torres Strait Islander-specific cohort study[16] Aboriginal and Torres Strait Islander-specific single study[17]
Health services and practices	Implement recall and reminder systems for patients and staff to facilitate on-time vaccination (eg through practice software, SMS reminders, telephone calls, letters)	Ongoing	Strong	Systematic review[18] Aboriginal and Torres Strait Islander-specific community-based study[5] Aboriginal and Torres Strait Islander-specific cohort study[16]
Health services and practices	Implement a pre-call strategy, making contact with families before immunisation is due	Before childhood immunisations are due	Conditional	Cohort study[19] Aboriginal and Torres Strait Islander-specific community-based study[5]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Environmental (continued)				
Health services and practices	Provide access to culturally appropriate resources and information on immunisation to support individuals and caregivers to make informed decisions	Ongoing	Strong	Aboriginal and Torres Strait Islander-specific community-based study[3] Aboriginal and Torres Strait Islander-specific single study[17]
Health services and practices	Support and provide access for all staff to cultural safety training	Ongoing	Strong	Aboriginal and Torres Strait Islander-specific community-based studies[1,3] Aboriginal and Torres Strait Islander-specific single study[17]
Health services and practices	Employ Aboriginal and/or Torres Strait Islander staff (eg Aboriginal Health Practitioners [AHPs])	Ongoing	Strong	Aboriginal and Torres Strait Islander-specific community-based studies[1,3,5] Cohort study[19] Aboriginal and Torres Strait Islander-specific single study[17] Aboriginal and Torres Strait Islander-specific review[20] Aboriginal and Torres Strait Islander-specific single study[21]

*Note: DTPa is the child formulation of diphtheria, tetanus and acellular pertussis-containing vaccine; dTpa is the adolescent and adult formulation that contains substantially less diphtheria toxoid and pertussis antigens than the child formulation.

Implementation tips

- Review your state or territory immunisation schedule and ensure you understand which additional vaccinations are available (recommended and funded) for Aboriginal and Torres Strait Islander people.
- Contact your local public health unit for further advice on the immunisation schedule or catch-up vaccination.
- Ensure all clinic staff are aware of optimising immunisation coverage for Aboriginal and Torres Strait Islander children through appropriate in-service education or professional development.
- Aim to vaccinate at the earliest appropriate age for recommended immunisations to ensure on-time vaccination.[6]
- Do not delay immunisations due to mild illness without fever (temperature <38.5°C).[22]
- Ensure all immunisations are recorded on the AIR in a timely manner. Failure to record childhood immunisations accurately may result in families losing their financial and/or childcare entitlements.[23]
- Provide opportunistic information and education to guardians/parents about HPV and other school-based vaccinations, including regarding the benefits of vaccination to prepare families for when consent is requested through the school.
- Use the PneumoSmart vaccination tool (racgp.link/3XuPDXA) to determine whether a patient is recommended to receive pneumococcal vaccination.
- The use of patient registries and the implementation of robust, culturally appropriate and locally relevant patient recall and reminder policies will assist in the follow up of patients who are due/overdue for vaccination.

Useful resources

- *Australian immunisation handbook* racgp.link/3zwG7eC
- NIP schedule racgp.link/3ZpByNK
- National Centre for Immunisation Research and Surveillance (NCIRS) immunisation schedules for Aboriginal and Torres Strait Islander people by jurisdiction racgp.link/3XL0DS8
- PneumoSmart vaccination tool racgp.link/3XuPDXA
- *Australian immunisation handbook* catch-up calculator racgp.link/4d99Sjq
- NCIRS racgp.link/4d207ne
- Sharing Knowledge About Immunisation racgp.link/3XuPJyq
- NCIRS *Enhancing data quality of vaccination encounter records – tips and tricks* racgp.link/3zaG5t1
- RACGP: Pain management strategies for childhood immunisation | Handbook of non-drug interventions (HANDI) racgp.link/3XznMWC

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Chapter 4: Child and family safety

Child maltreatment: Supporting families to optimise child safety and wellbeing

Dr Kim Jones, Dr Mary Belfrage

Key messages

- Historical and current experiences of trauma underpin intergenerational cycles that can impact on the capacity of parents to nurture and care for their children.[1]
- Recognition and understanding of trauma and its impact on relationships, parenting and child development are needed to ensure care and services are safe and appropriate.[2]
- Supporting parents who have experienced trauma to understand the effects and to care for their children provides an opportunity to help parents transform cycles of intergenerational trauma to cycles of nurturing and recovery.[3]
- Most parenting programs have not been adequately trialled in Aboriginal and Torres Strait Islander communities to understand whether acceptability and effectiveness is generalisable to this population.
- The key role for general practitioners (GPs) and primary care teams at all levels of prevention is to use a trauma-informed and culturally safe approach to provide comprehensive primary healthcare, build trusting relationships through continuity of care, understand and address complex needs, make appropriate referrals and help families access support.[4,5]
- Before making child protection notifications based on identification of 'risk factors', primary care providers should ensure families are linked to targeted, culturally safe supports and services, and actively assisted to access these (eg through financial or transportation assistance).[4]
- Primary care providers should engage in ongoing cultural safety training to ensure service delivery is strengths based and does not re-traumatise.[4–6]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All pregnant women	Assess the need for support to address factors such as alcohol and other drug use, personal history of family abuse and violence (refer to Chapter 4: Child and family safety, Family abuse and violence), housing adequacy, engagement with and accessibility of antenatal care and supportive factors, including social and family supports (Box 1) Actively assist women to access these supports	At first and subsequent antenatal visits	Good practice point	International guideline[7] Aboriginal and Torres Strait Islander-specific guideline[8]
All children	Conduct routine monitoring of developmental milestones (refer to Chapter 6: Child health, Childhood growth and development)	Opportunistically and as part of a routine health assessment	Good practice point	International guideline[7]
All children	**Do not** routinely screen for maltreatment (eg a standard instrument, set of criteria or questions asked of all children in healthcare encounters)	N/A	Strong	International guidelines[10,11]
All children	Stay alert for signs and indicators of maltreatment, such as particular types of physical injury (non-accidental injury), emotional distress or behavioural problems	Opportunistically	Good practice point	International guideline[11]
Families with complex needs (Box 1)	Using a trauma-informed approach, conduct a culturally safe comprehensive psychosocial assessment, including mental health, trauma, alcohol and other drug use and family violence, and assess for the availability of social supports with an emphasis on building trust and engagement with healthcare	Opportunistically	Good practice point	Aboriginal and Torres Strait Islander resource[8] International guideline[12]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural				
All families	Offer referral to a culturally informed parenting program where services are available as a universal precaution in the prevention of child maltreatment	Opportunistically	Good practice point	Aboriginal and Torres Strait Islander-specific resource[9] Single study[6]
Families with complex needs (Box 1)	Identify and provide an integrated service response that provides for the full range of a child's and family's needs. This can include resources such as housing, financial, transportation, mental health, drug and alcohol supports and childcare services Actively assist the family to access these supports	Opportunistically and as clinically indicated	Good practice point	Aboriginal and Torres Strait Islander-specific guideline[4]
Children with identified developmental delay, behavioural disturbance, harmful child–parent interactions	Refer to community paediatrician for comprehensive health, behaviour and development assessment Actively assist the family to access appropriate supports.	As clinically indicated	Good practice point	International guideline[7]
Children with identified developmental delay, behavioural disturbance, harmful child–parent interactions	Consider referral to other services depending on the specific developmental issue, such as mental health, speech	Opportunistically	Good practice point	International guideline[7]
Families with complex needs (Box 1)	Offer referral to Aboriginal and Torres Strait Islander-specific support services, including a home visiting program where available Actively assist the family to access these supports	Opportunistically	Good practice point	Aboriginal and Torres Strait Islander-specific narrative review[13]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural (continued)				
Children when there are serious concerns or evidence of maltreatment, including neglect, and active efforts to keep a child safe at home have been exhausted	Notify child protection services as per jurisdictional requirements (refer to Useful resources) Ensure families, communities and Aboriginal Community Controlled Organisations (ACCOs) are involved in all significant decisions about children wherever possible Use the *Aboriginal and Torres Strait Islander child placement principle: A guide to support implementation* (see Useful resources) to ensure concerns are justified (refer to Box 2)	As clinically indicated	Good practice point	National standard and guideline[14,15] Single study[6] Aboriginal and Torres Strait Islander-specific guideline[4]
Preventive activity: Environmental				
Health professionals	Become familiar with health and support services for Aboriginal and Torres Strait Islander peoples in your area, particularly family support services	Opportunistically	Good practice point	National standard and guideline[16] Aboriginal and Torres Strait Islander-specific guideline[4]
Children when there are serious concerns or evidence of maltreatment, including neglect	Involve extended family members and/or culturally specific support services whenever possible	As clinically indicated	Good practice point	Aboriginal and Torres Strait Islander-specific guideline[4]
Health professionals	Health professionals should attend cultural competency training programs and become familiar with principles of trauma-informed practice	Opportunistically	Good practice point	Single study[6] Aboriginal and Torres Strait Islander-specific guideline[4]

Box 1. Complex needs requiring targeted supports

- Alcohol and other drug misuse
- Parental history maltreatment
- Family violence
- Housing instability
- Significant mental health issues, including intergenerational trauma
- Significant financial stress
- Parental incarceration
- Child experiencing disability
- Parent with intellectual disability

Box 2. Principles for effective engagement with Aboriginal and Torres Strait Islander families

- Understanding differences in child-rearing practices to avoid parental strengths being misinterpreted as risks
- Understanding the issues facing Aboriginal and Torres Strait Islander families, such as intergenerational trauma, poverty and marginalisation, to ensure that supports are tailored to the need
- Practitioner insight into factors influencing their own decision-making thresholds
- Recognition of the strengths of Aboriginal and Torres Strait Islander cultures

Implementation tips

- Primary care providers should attend cultural safety training. Evidence suggests the most effective training:
  - is interactive and draws on a variety of techniques
  - is delivered face-to-face in a safe learning environment
  - is designed and delivered with or by Aboriginal or Torres Strait Islander people and skilled trainers
  - is mandatory and monitored and includes reflective practice and exploration of pre-existing knowledge
  - identifies and acknowledges the diversity among Aboriginal and Torres Strait Islander people
  - clearly names racism and its effect on health outcomes
  - provides practical tools and resources
  - includes case studies and lived experience presentations[17] (refer to Useful resources).
- Primary care providers should become familiar with the principles of trauma-informed care, including the use of a strengths-based approach, and apply these principles when engaging with Aboriginal and Torres Strait Islander clients (refer to Box 3).
- Primary care providers should prioritise building respectful trusting relationships through continuity of care and adopting the principles in Box 2.
- Primary care providers should actively assist parents to access any supports they are referred to.
- Any mainstream program-based supports should be adapted with Aboriginal and Torres Strait Islander communities.
- Primary care providers should be aware that parents may be reluctant to disclose complex needs due to fear of child protection involvement and that this is related to intergenerational and historical trauma.
- Complete a GP management plan and team care arrangements and/or a GP mental health treatment plan as appropriate to facilitate access to Medicare Benefit Schedule-funded allied health services.

What has changed in this edition?

- Greater recognition of structural racism, particularly the way risk is understood and identified, as a driver of notifications to child protection services
- Increasing strengths-based understanding of the context in which child maltreatment may occur, characterised as 'parents/families with complex needs' rather than being 'at risk of maltreatment'
- A new strong recommendation against universal screening for maltreatment based on the Canadian Taskforce on Preventive Health Care guidelines and World Health Organization (WHO) recommendations
- A new good practice point to remain alert for signs and indicators such as particular types of physical injury (non-accidental injury), emotional distress or behavioural problems, or signs of family-level risk factors based on WHO guidelines recommendation
- A new good practice point to provide an integrated service response for families with complex needs that provides for the full range of a child's and family's needs, and to actively help the family to access these services.

Box 3. Principles of culturally safe, trauma-informed care[18–21]

- **Trauma awareness:** Be aware of and understand the impacts of traumatic experiences on individuals, families and communities
- **Safety:** Create environments where people feel physically and emotionally safe, and avoid re-traumatisation
- **Cultural competency:** Employ culturally competent staff and adopt practices that acknowledge and demonstrate respect for specific cultural backgrounds
- **Choice:** Support people who have experienced trauma to regain a sense of control over their daily lives through maximising choice, and actively involve them in the healing journey
- **Collaboration:** Share power and governance, including collaborating with community members in the design and evaluation of services
- **Trustworthiness:** Maximise trustworthiness and engagement through safe, authentic relationship building and transparency to assist healing and recovery
- **Empowerment:** Adopt a strengths-based approach to promote empowerment and skill building to enable people to take control of their own healing and recovery

Useful resources

General

- Australian Indigenous Health*InfoNet*: An extensive list of resources for cultural competence training racgp.link/3ZrMb2B
- Australian Institute of Family Studies (AIFS): Australian Government site with extensive resources, including population data, research and reviews relating to children and families racgp.link/3Tr0fWA
- Parenting in the early years: *Effectiveness of parenting support programs for Indigenous families* racgp.link/4ddHlsZ
- SNAICC: *The Aboriginal and Torres Strait Islander child placement principle: a guide to support implementation* racgp.link/3Tzcss7
- AIFS: Mandatory reporting of child abuse and neglect racgp.link/3ZrFmOH
- Australia's National Research Organisation for Women's Safety (ANROWS): *Implementing trauma-informed systems of care in health settings: The WITH study. State of knowledge paper* racgp.link/3TrHO3S
- Center on the Developing Child, Harvard University: Resources regarding the science of early childhood development and its application at individual and societal levels racgp.link/3MKT5Zh
- ANROWS: *Improving family violence legal and support services for Aboriginal and Torres Strait Islander women* racgp.link/3TsUR4Y
- SNAICC: *Family matters report 2023* racgp.link/3TxhfdD
- WellMob: Social, emotional and cultural wellbeing online resources for Aboriginal and Torres Strait Islander people racgp.link/3ZxjyB4

Community directories

- Explore a community directory for social support services in your jurisdiction: for example, for Townsville, racgp.link/3MNz5Fo

Parenting programs

- Specific program information is available at the following sites, which may also be searched for local availability:
  - Triple P (Positive Parenting Program) racgp.link/47VlEND
  - Parents Under Pressure racgp.link/3B4yJYp
  - Australian Nurse–Family Partnership program racgp.link/3MQGcwI

Other resources

- Victorian Aboriginal Health Service suite of Koori parenting resources: *Breaking the cycle of trauma, Koori parenting: What works for us* racgp.link/4erCENA
- Victorian Aboriginal Child Care Agency family support services racgp.link/4erzgBZ

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Chapter 4: Child and family safety

Family abuse and violence

Dr Elizabeth Hindmarsh, Dr Melanie Dorrington

Key messages

- The prevention of family abuse and violence (FAV) for Aboriginal and Torres Strait Islander peoples and communities begins with recognising that FAV is a complex issue involving many interconnected factors, such as systemic racism, institutional barriers, gender and power inequality, discrimination and the ongoing impacts of colonisation.[1,2]
- FAV is a serious issue that impacts the health and wellbeing of individuals and communities. Effective prevention requires an Aboriginal and Torres Strait Islander-led approach, with culturally appropriate involvement of health services and practitioners. Aboriginal and Torres Strait Islander approaches to FAV are more holistic, with a desire for a whole-of-community and collective healing approach.[3–5] Central to preventing FAV is supporting the family as a whole and recognising that trauma and loss contributes to FAV. Culture is protective and involving Elders in healing where appropriate can support meaningful community solutions.[6–8]
- Respectful therapeutic relationships, building rapport and a culturally safe approach to healthcare (asking the patient what feels like safety for them) are crucial to supporting the prevention of FAV. There is a need and expectation that health professionals will offer safety from racist attitudes and institutional control.[7]
- Recognising and responding to FAV requires that all staff have been trained in how to ask about and manage FAV. This is preferably done as whole-of-service/practice training and viewed as core skills to be developed as a basic requirement for new staff and ongoing professional development for all staff.[9]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Environmental[A]				
Primary healthcare practice	Implement service-level systems and protocols to train and support staff in identifying and responding to FAV (see Implementation tips)	Opportunistically and as part of staff professional development	Good practice point	Policy brief[10] National guideline[11]
Primary healthcare practice	Support and access training in providing culturally safe and trauma informed care	During induction of new staff and as part of ongoing staff professional development	Good practice point	Policy brief[10] Aboriginal and Torres Strait Islander-specific framework[4]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Environmental[A] (continued)				
Primary healthcare practice	Offer support services to staff experiencing stress from working with victims/survivors and perpetrators of FAV	Opportunistically and as needed	Good practice point	National guideline[11]
Primary healthcare practice	Promote training in assessing perpetrators and clear referral pathways for behaviour change programs, including pathways for non-Indigenous perpetrators	During induction of new staff and as part of ongoing staff professional development	Good practice point	National outcome standards[12]
Clinicians and health services with links to secondary schools	Advocate for implementation of school-based education programs to promote the development of healthy personal relationships, and an understanding of FAV	As part of school curricula when health services are linked to schools	Good practice point	Aboriginal and Torres Strait Islander-specific studies[13,14] Framework and narrative review[15,16]
Preventive activity: Screening (Enquiry)[B]				
Adults and adolescents where risk factors or concerns are identified	Ask sensitively about the possibility of experiencing FAV	Opportunistically/ when risk factors or concerns are identified	Conditional	International guideline[17] Aboriginal and Torres Strait Islander-specific studies[3,13]
Pregnant people	Assess for the risk of FAV as part of a comprehensive pregnancy care assessment (refer to Chapter 5: Preconception and pregnancy care, Pregnancy care) Ask about FAV with general questions about relationships and specific questions (eg ACTS [Afraid, Controlled, Threatened, Slapped] tool (refer to Figure 1)	At least once in early pregnancy and checking again at 20 weeks onwards	Strong	International guideline[18] National guideline[11]
All children	Stay alert for signs and indicators of FAV such as particular types of physical injury (non-accidental injury), emotional distress or behavioural problems (refer to Chapter 4: Child and family safety: Child maltreatment: Supporting families to optimise child health and wellbeing)	If there are concerns, as clinically indicated	Good practice point	International resource[19] National resource[20]
Women aged over 16 years attending with mental health issues and women aged over 16 years with drug and alcohol issues	Ask about potentially experiencing FAV	When being assessed for their mental health and/or drug and alcohol issues	Good practice point	Aboriginal and Torres Strait Islander-specific studies[13,15]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (Enquiry)[B] (continued)				
Adults and teenagers	Screen for the use of alcohol, other drugs, gambling and for financial or other stressors	Opportunistically	Good practice point	Aboriginal and Torres Strait Islander-specific study[13] Aboriginal and Torres Strait Islander-specific framework[4]
Known victims/ survivors of FAV	Ask about economic abuse, coercion and sexual abuse	As clinically indicated/ when assessing	Good practice point	National guidelines[11]
Adults and teenagers, especially known victims/survivors of FAV	Assess for social and emotional wellbeing (refer to Chapter 20: Mental health) Refer to local social support services (see Useful resources)	Opportunistically	Good practice point	National guideline[11]
Preventive activity: Behavioural				
Pregnant women, especially known victims/survivors of FAV	Promote regular health professional contact via nurse, Aboriginal health worker or practitioner-initiated home visits	Assess regularly in the antenatal period and continue until the child is aged 2 years (using specially trained staff and addressing safety issues)	Good practice point	Policy brief[10]
Men who use violence	Engage men who use violence in behaviour change programs and other healing programs where available (see Useful resources)	Opportunistically	Good practice point	National outcome standards[12]
Victims and people who use abusive behaviours where there is high household use of alcohol and other drugs	Assess for alcohol and other drug-related harm and work to limit use (refer to Chapter 2: Healthy living and health risks, Alcohol and Chapter 7: The health of young people)	Opportunistically and as part of an annual health assessment	Good practice point	National guideline[11] Aboriginal and Torres Strait Islander-specific framework[4]

[A]Note, the Environmental recommendations have been elevated for FAV because the need for appropriate training is fundamental to being able to provide safe, appropriate and effective healthcare.

[B]Note, the World Health Organization (WHO) recommends enquiry rather than screening as the safest approach to FAV.

Implementation tips

- Establishing rapport with individuals and their families is paramount. Establish a safe space for the individual to slowly learn to trust you. Reassure the client that their needs will be prioritised and that you intend on taking an approach that values their priorities. It is acceptable to let Aboriginal and Torres Strait Islander people know you have limited knowledge about their cultures but are willing to learn.
- It is important to ensure that all practice team members are sensitive to the issue of FAV. This means that everyone working in the practice feels confident in their knowledge about how they can support patients and each other when FAV is identified.
- Consider staff training:
  - to understand the connection between colonisation and ongoing trauma and FAV, as well as the impact of other factors, such as housing, poverty and financial stress, racism and unemployment
  - to know how to enquire about FAV and what to do when cases are identified
  - about providing trauma- and violence-informed healthcare
  - to know how to support each other when working with people who experience FAV and people who use abusive and violent behaviours; be aware of culturally appropriate services in your area:
    - support services for people experiencing FAV
    - behaviour change and other services for people who use abusive and harmful behaviours.
- Consult with and involve the community in making decisions about the types of programs and ways of implementing effective services.

Useful resources

Clinical guidelines

- RACGP: *Abuse and violence: Working with our patients in general practice (White Book)*, 5th edition racgp.link/4dYQiHY

Resources for patients and families

- 1800RESPECT (1800 737 732): A 24-hour, national sexual assault, domestic family violence counselling service; information and support for Aboriginal health workers and general practitioners, as well as telephone counselling service for patients and their families www.1800respect.org.au
- 13YARN (13 92 76): A national crisis support telephone line for Aboriginal and Torres Strait Islander people providing confidential one-on-one yarning opportunity with an Aboriginal and/or Torres Strait Islander crisis support worker available 24 hours a day, seven days a week. This service is appropriate for staff who are working with survivors of FAV, as well as people experiencing FAV racgp.link/3XuQLKO
- Djirra: Community family violence prevention, support and legal service racgp.link/3Xuj9Nq
- National Family Violence Prevention Legal Services racgp.link/4erD6vg
- Men's healing & behaviour change racgp.link/4e4e7ya
- Resources for perpetrators racgp.link/4eqCVAg
- Wherever possible, access locally developed and appropriate resources, including in local language(s).

Professional development

- RACGP: GP Family Violence Education Program (Victoria) – login required racgp.link/4dc5Kzc
- RACGP: Family Violence GP Education Program (Victoria) ongoing professional development options racgp.link/4d5OThx
- RACGP check program: Unit 591 March 2022: Abuse and violence (via gplearning)

Safer families

- The Readiness Program: e-learning modules racgp.link/4eoKl6X
- The Readiness Program: RACGP webinar series racgp.link/4el8BH4
- The Readiness Program racgp.link/4d9b6v2

Responding to perpetrators

- AVERT Family Violence: Responding to perpetrators of family violence racgp.link/4elx4ft
- No to Violence racgp.link/4d6Ovzd
- Our Watch: Changing the picture racgp.link/3Xp7K1j
- RACGP White Book: *Working with men who use intimate partner abuse and violence*. racgp.link/3BezrSS

Other resources for health professionals

- Australian Institute of Health and Welfare and Australian Institute of Family Studies: *Family violence prevention programs in Indigenous communities* racgp.link/4d7NmYp
- Scale of Economic Abuse-12 (SEA-12): A 12-item measure of a victim's experience of economic abuse. The items are separated into three subscales: behaviours that control a woman's access to and use of resources (economic control); behaviours that restrict a woman's ability to work or attend school (employment sabotage); and behaviours that economically exploit women. The SEA-12 is a shortened version of the 28-item Scale of Economic Abuse racgp.link/3XuZsVw
- *Aboriginal and Torres Strait Islander action plan 2023–2025* racgp.link/3Xs2JoD
- Relevant journal articles from the *Australian Journal of General Practice* (previously *Australian Family Physician*):
  - Recognising and responding to domestic and family violence in general practice racgp.link/4ddAakG
  - Family violence across the life cycle racgp.link/4dc65Su
  - Identifying and responding to men who use violence in their intimate relationships racgp.link/3Xp88wN
  - Intimate partner violence racgp.link/3zlk6iT

Figure 1. The ACTS (Afraid, Controlled, Threatened, Slapped) risk identification screening tool tested in the antenatal care setting.

Reproduced from Hegarty et al, with permission.[21]

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Chapter 5: Preconception and pregnancy care

Preconception care

Dr Danielle Carter

Key messages

- The health of a woman in the preconception period impacts pregnancy outcomes for mother and baby and has a lifelong effect on the child's health.[1]
- Preconception care is an opportunity to explore biomedical, behavioural and social health interventions that improve the health and wellbeing outcomes of mother and baby.[1]
- Preconception care can be provided opportunistically within the delivery of routine healthcare and can start with assessing pregnancy intention.[2]
- Identifying intention regarding pregnancy supports women to become pregnant if and when they want to, and directs care to contraception, preparation for pregnancy and/or other sexual health issues.
- Preconception care for Aboriginal and Torres Strait Islander people should be delivered via a strengths-based approach that is free from healthcare provider judgement or racism, and is responsive to local cultural context.[3]
- If appropriate, the health and wellbeing of the father or non-birthing partner, and/or other members of the household, should be explored and optimised prior to pregnancy.[4]
- Aboriginal and Torres Strait Islander health practitioners are well placed to initiate a preconception care conversation with girls and women of childbearing age.

Recommendations

Providing preconception care

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All girls and women of reproductive age	Ask: 'Would you like to become pregnant in the next year?' If 'Yes', offer advice on preconception care If 'No', offer advice on contraception, fertility and sexually transmissible infection (STI) screening	Opportunistically	Good practice point	Initiative[2]
All women planning pregnancy	Assess reproductive history, including contraception use, cervical screening and STIs Assess history of previous pregnancy for complication Assess for factors that may cause subfertility/infertility (eg amenorrhoea, pelvic inflammatory disease, polycystic ovarian syndrome)	Opportunistically	Good practice point	Jurisdictional guidelines[5,6]
Preventive activity: Behavioural				
Primary healthcare practice	Offer advice on safe pregnancy intervals between 18 and 59 months	Opportunistically and when providing infant immunisations	Strong	Jurisdictional guideline[5] National guideline[7]
Fathers, non-birthing partners and extended family members	Offer advice on optimising health prior to conception, including STI screening, smoking cessation, alcohol reduction, avoiding illicit drug use, healthy body mass index (BMI) and adequate exercise	Opportunistically	Good practice point	Viewpoint article[4]

Recommendations

Social and emotional wellbeing

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All women planning pregnancy	With care and cultural sensitivity, explore women's social and emotional wellbeing Identify current and past stressors, including history of childhood adversity and trauma	Early in pregnancy and during subsequent visits if clinically indicated	Good practice point	National guideline[7]
All women planning pregnancy	Ask about domestic and family violence	Early in pregnancy and during subsequent visits if clinically indicated	Good practice point	National guideline[7]
All women planning pregnancy	Use the Kimberly Mum's Mood Scale or the Edinburgh Postnatal Depression Scale to screen for depression and anxiety	Early in pregnancy and during subsequent visits if clinically indicated	Strong	National guideline[7] Individual study[8]

Nutrition, weight and physical activity

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All women planning pregnancy	Measure height, weight, and BMI	Opportunistically and when planning pregnancy	Good practice point	Jurisdictional guidelines[5,6]
All women planning pregnancy	Advise of the impacts of weight and nutrition on conception and pregnancy	Opportunistically and when planning pregnancy	Good practice point	Jurisdictional guideline[5] National guideline[7]
Preventive activity: Behavioural				
Women planning pregnancy who are considered under-/overweight	Provide advice on what is considered a healthy weight, with an emphasis on appropriate weight gain/loss as beneficial Offer practical interventions to assist weight gain/loss	Opportunistically and when planning pregnancy	Strong	Jurisdictional guideline[5] National guideline[7]
All women planning pregnancy	Advise 150–300 minutes of exercise per week with a combination of aerobic and strengthening exercises Limit sedentary behaviours	Opportunistically and when planning pregnancy	Strong	National guideline[9]

Recommendations

Vitamin supplementation

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medication				
All women planning pregnancy	Recommend 400 mcg/day folic acid orally	For one month prior to conception and for at least the first three months of pregnancy	Strong	National guidelines[7,10]
Women planning pregnancy at an increased risk of neural tube defects (diabetes, BMI >30 kg/m^2, malabsorption)	Recommend a higher dose of 5 mg/day folic acid orally	For one month prior to conception and for at least the first three months of pregnancy	Strong	National guidelines[7,10]
All women planning pregnancy	Recommend 150 mcg/day iodine orally	When attempting to fall pregnant or as soon as pregnancy is confirmed	Good practice point	National guidelines[7,10]

Substance use

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All women planning pregnancy and their partners	Regularly assess smoking status and alcohol intake	Opportunistically	Strong	Jurisdictional guidelines[5,6]
Preventive activity: Behaviour				
Women planning pregnancy and their partners who smoke	Advise and offer strategies to quit smoking prior to conception	Opportunistically	Strong	National guideline[11] Jurisdictional guideline[5]
Women planning pregnancy and their partners who drink alcohol	Advise and offer strategies for reduction and cessation of alcohol prior to conception	Opportunistically	Strong	Jurisdictional guideline[5]

Recommendations

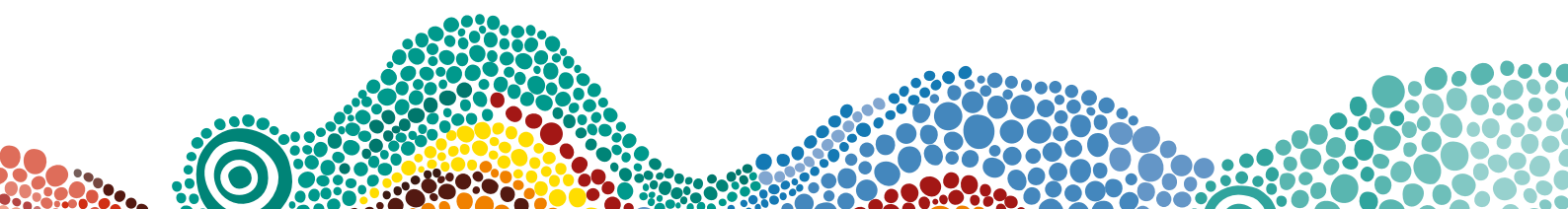
Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medication				
Women planning pregnancy and their partners who smoke	Offer smoking cessation counselling Provide information about and referral to available support programs Consider nicotine replacement therapy and/or prescribed smoking cessation medication (bupropion or varenicline) after discussion of risks and benefits	Opportunistically	Strong	National guideline[11]

Pre-existing medical conditions

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All women planning pregnancy	Screen for pre-existing chronic medical conditions, including oral health	Opportunistically and when planning pregnancy	Strong	Jurisdictional guideline[5,6]
Women planning pregnancy and fathers using regular medication	Assess teratogenicity of medications	When planning pregnancy	Strong	Jurisdictional guideline[5,6]
Preventive activity: Behaviour				
Women planning pregnancy diagnosed with a chronic medical condition	Ensure optimal current management as per clinical guidelines Consider early referral and engagement with specialist team	When planning pregnancy	Good practice point	Jurisdictional guideline[5,6]

Vaccinations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All women planning pregnancy	Assess immunisation status and offer serological testing for hepatitis B, measles, mumps, rubella and varicella immunity **Note: Varicella serology is only reliable to identify past infection**	When planning pregnancy	Strong	Jurisdictional guideline[5] National guideline[12]



Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Immunisation				
All women planning pregnancy	Recommend influenza vaccine Recommend COVID-19 vaccination course and/or booster	Annually	Strong	National guideline[12] Position statement[13]
Women planning pregnancy with negative serum antibody levels	Recommend vaccination for hepatitis B, measles, mumps, rubella and varicella	As clinically indicated	Strong	National guideline[12]

Genetic screening

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All women planning pregnancy and their partners	Assess family history for heritable genetic conditions	When planning pregnancy	Strong	Jurisdictional guideline[5] National guideline[14] Best practice statement[15]
Preventive activity: Behaviour				
All women planning pregnancy and their partners	Advise and offer genetic carrier screening (cystic fibrosis, spinal muscular atrophy and fragile X syndrome) Note Medicare Benefit Schedule (MBS) Items 73451 and 73452 (since 1 November 2023)	When planning pregnancy	Strong	Jurisdictional guideline[5] National guideline[14] Best practice statement[15]
Women planning pregnancy and/or their partners with an increased risk of heritable genetic conditions, and/or abnormal carrier screening	Refer to a genetic counselling service	When risk identified	Good practice point	Jurisdictional guideline[5] National guideline[14] Best practice statement[15]

Implementation tips

- Encourage primary health workers to discuss the importance of preconception care opportunistically and at the annual health check.
- Tailor health promotion materials for Aboriginal and Torres Strait Islander girls and women relating to contraception, sexual health and pregnancy.
- Increase the capacity of healthcare providers to deliver culturally appropriate and sensitively delivered information and advice about fertility and pregnancy.
- Link in girls and women of reproductive age with other support that is available from the community, such as Aboriginal Community Controlled Health Organisations.

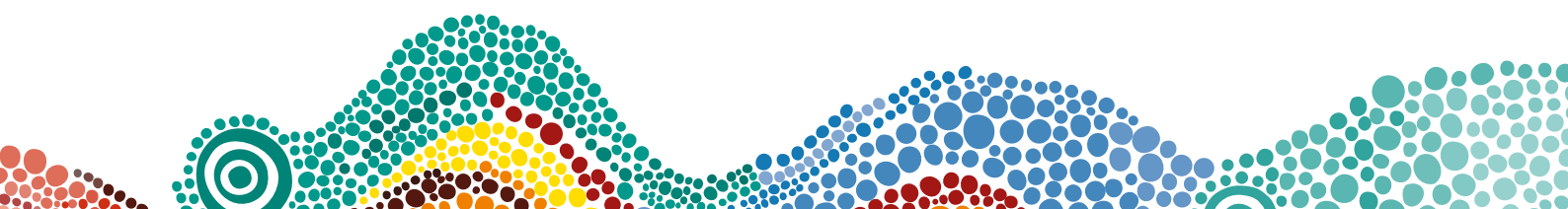
Useful resources

Clinical guidelines and protocols

- Kimberley Aboriginal Health Forum (KAHPF) clinical protocols: Preconception care racgp.link/3TxuL0W
- SA Maternal and Neonatal Clinical Network: *Preconception advice clinical guideline* racgp.link/3Nh2x6X
- Australian pregnancy care clinical guidelines racgp.link/3TuwGmV
- RACGP (*Guidelines for preventive activities in general practice*, 10th edition Red Book)
- Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG): Pre-pregnancy counselling racgp.link/3XAwPGO
- Remote Primary Health Care Manuals: *Minymaku Kutju Tjukurpa Women's Business manual* racgp.link/3TvJA3W

Health promotion resources

- Tackling Aboriginal and Torres Strait Islander smoking (racgp.link/3Zwelo1)
- Strong Spirit Strong Mind (racgp.link/3XIHXT0)
- WellMob: Social and emotional wellbeing (racgp.link/3ZxjyB4)



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Chapter 5: Preconception and pregnancy care

Pregnancy care

Dr Danielle Carter

Key messages

- Improving outcomes in Aboriginal and Torres Strait Islander maternal and child health is a matter of national priority.[1]
- Pregnancy represents a time when women may be more receptive to health promotion and experience increased motivation to make healthy changes.[2,3]
- A healthy in utero environment optimises the growth and development of the baby and has lifelong impacts on health and disease trajectories.[4]
- Healthcare provider continuity is highly valued by Aboriginal and Torres Strait Islander women during pregnancy.[5]
- The enduring impacts of colonisation, historical and contemporary forced removal of children and intergenerational trauma can influence how much women trust and engage with antenatal care.[6]
- Healthcare professionals require education, training and ongoing support to ensure they are providing culturally appropriate and trauma-informed pregnancy care to Aboriginal and Torres Strait Islander women.[7]
- Engaging in early and regular antenatal care is associated with a reduction in perinatal deaths and better birth outcomes.[4]
- Including fathers and non-birthing partners in the provision of pregnancy care is likely to have positive impacts across the family system.[8]

Recommendations

Providing pregnancy care

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All pregnant women	Discuss schedule of antenatal visits and provide antenatal care, including history, examination, screening and investigations	At first antenatal visit	Strong	National guideline[9]
Pregnant women who identify as Aboriginal and/or Torres Strait Islander	Adopt a respectful, positive and supportive approach to providing antenatal care that is culturally safe and trauma informed Provide a strengths-based model of care that works in partnership with women, focusing on trust and safety	At first antenatal visit and throughout pregnancy	Good practice point	National guideline[9]

Social and emotional wellbeing and perinatal mental health

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All pregnant women	With care and cultural sensitivity, explore women's social and emotional wellbeing Identify current and past stressors, including history of childhood adversity and trauma	Early in pregnancy and during subsequent visits if clinically indicated	Good practice point	National guideline[9] Aboriginal and Torres Strait Islander-specific peer-reviewed viewpoint article[10] Scoping review[11]
All pregnant women	Ask about domestic and family violence (refer to Chapter 4: Child and family safety, Family abuse and violence)	Early in pregnancy and during subsequent visits if clinically indicated	Conditional	National guideline[9]
All pregnant women	Ask about social and emotional wellbeing using a validated perinatal assessment tool (see Useful resources)	Early in pregnancy and during subsequent visits if clinically indicated	Strong	National guideline[9] Single study[12]

Recommendations

Nutrition, physical activity and weight

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All pregnant women	Measure height, weight and body mass index (BMI)	At first antenatal visit	Good practice point	National and regional guidelines[9,13]
Preventive activity: Behaviour				
All pregnant women	Provide information on healthy eating, including foods to avoid, and healthy weight in pregnancy	At first antenatal visit	Strong	National and regional guidelines[9,13]
All pregnant women	Advise 150–300 minutes of exercise per week with a combination or aerobic and strength exercises	At first antenatal visit	Strong	National and regional guidelines[9,13]
All pregnant women	Advise safe levels of weight gain during pregnancy	At first antenatal visit	Good practice point	National and regional guidelines[9,13]

Dietary supplementation

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
Pregnant women who follow a vegetarian or vegan diet	Monitor full blood count, ferritin and vitamin B12 levels to assess for anaemia	At first antenatal visit; repeat full blood count at 28 and 36 weeks gestation	Good practice point	National and regional guidelines[9,14]
All women	**Do not** test for vitamin D levels in women who do not have risk factors for deficiency	N/A	Strong	National guideline[9]
Pregnant women with risk factors for vitamin D deficiency (dark-skinned women, limited sun exposure, BMI >30 kg/m^2)	Consider testing for serum vitamin D levels in women at risk of deficiency	At first antenatal visit	Good practice point	National guideline[9]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medication				
All pregnant women	Recommend 400 mcg/day folic acid orally	For one month prior to conception and for at least the first three months of pregnancy	Strong	National guideline[9]
Pregnant women at an increased risk of neural tube defects (diabetes, BMI >30 kg/m^2, malabsorption)	Recommend a higher dose of 5 mg/day folic acid orally (refer to Chapter 5: Preconception and pregnancy care, Preconception care)			
All pregnant women	Consider150 mcg/day iodine orally	When attempting to fall pregnant or as soon as pregnancy is confirmed and throughout pregnancy	Conditional	National guideline[9]
Pregnant women with serum vitamin D level 30–49 nmol/L	Recommend 1000 IU/day vitamin D orally	At diagnosis and throughout pregnancy	Strong	National guidelines[9,15]
Pregnant women with serum vitamin D level <30 nmol/L	Recommend 2000 IU/day vitamin D orally		Strong	
Pregnant women with confirmed iron deficiency	Advise on dietary sources of iron and recommend iron supplementation if required (see Chapter 6: Child health, Childhood anaemia)	At diagnosis and throughout pregnancy	Strong	National and regional guidelines[9,14,15]

Smoking and alcohol

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All pregnant women	Regularly assess smoking status, alcohol intake and other drug use	At first antenatal visit and continued throughout pregnancy	Strong	National guideline[9]
Preventive activity: Behaviour				
Pregnant women who smoke	Advise and offer strategies to quit smoking	At first antenatal visit and continued throughout pregnancy	Strong	National guidelines[9,16]
Pregnant women who drink alcohol and/or use drugs	Advise and offer strategies for reduction and cessation of alcohol and other drugs	At first antenatal visit and continued throughout pregnancy	Strong	National guideline[9]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medication				
Pregnant women who smoke	Consider use of nicotine replacement therapy based on patient preference and after discussion of benefits and harms (see Chapter 2: Healthy living and health risks, Smoking)	At first antenatal visit and throughout pregnancy	Good practice point	National guideline[9,16]

Genitourinary and blood-borne infections

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All pregnant women	Serological testing for hepatitis B, hepatitis C, HIV and syphilis	At first antenatal visit, and at 28 weeks gestation and birth (and additional times if recommended in local area or particularly high risk)	Strong	National and regional guidelines[9,17,18]
All pregnant women	Chlamydia nucleic acid amplification test (NAAT) of a first-void urine, low vaginal swab +/– anal and throat swab	At first antenatal visit Repeat three monthly in women with ongoing risk factors	Strong	National guidelines[9,17,18]
All pregnant women	Gonorrhoea NAAT of a first-void urine, low vaginal swab +/– anal and throat swab	At first antenatal visit Repeat three monthly in women with ongoing risk factors	Strong	National and regional guidelines[9,17,18]
All pregnant women	Offer a mid-stream urine microscopy and culture for asymptomatic bacteriuria	At first antenatal visit	Strong	National guideline[9]
Preventive activity: Screening (testing)				
All pregnant women	Only test for trichomonas in the presence of symptoms	On presentation with symptoms	Strong	National guideline[9]
All pregnant women	Only test for bacterial vaginosis in the presence of symptoms	On presentation with symptoms	Strong	National guideline[9]
Preventive activity: Screening				
All pregnant women	Offer testing for Group B streptococcus colonisation via microscopy and culture of a self-collected vaginal–rectal swab Alternatively, offer an assessment of risk factors for Group B streptococcus transmission during labour	Screening between 35 and 37 weeks gestation Assessment to be done during labour	Strong	National guideline[9]

Recommendations

Hypertensive disorders

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All pregnant women	Assess risk factors for pre-eclampsia (see Box 1)	At first antenatal visit	Strong	National guideline[9]
All pregnant women	Measure blood pressure	At each antenatal visit	Strong	National guideline[9]
All pregnant women	Offer testing for proteinuria	At first antenatal visit regardless of what stage of pregnancy	Strong	National guideline[9]
Pregnant women who are at moderate to high risk of developing pre-eclampsia	Test for proteinuria	At each antenatal visit	Good practice point	National guideline[9]
Pregnant women who are at moderate to high risk of developing pre-eclampsia	Provide advice about the risks associated with hypertension and pre-eclampsia during pregnancy Educate women on the signs and symptoms of pre-eclampsia	When identified as moderate to high risk	Good practice point	National guideline[9]
Preventive activity: Medication				
Pregnant women who are at moderate to high risk of developing pre-eclampsia	Recommend low-dose aspirin from early pregnancy	To begin before 16 weeks gestation and continuing to 36 weeks of gestation	Strong	National guideline[9]
Pregnant women who are at moderate to high risk of developing pre-eclampsia	Recommend calcium supplementation in women with low dietary intake (<900 mg/day)	When identified as moderate to high risk	Strong	National guideline[9]
Women diagnosed with mild to moderate hypertension	Initiate appropriate antihypertensive treatment Increase the frequency of antenatal visits with monitoring of blood pressure and proteinuria Consider early engagement with specialist team	At diagnosis	Strong	National guideline[9]
Preventive activity: Behaviour				
Women diagnosed with severe hypertension and/or signs of pre-eclampsia	Organise urgent referral to specialist team	At diagnosis	Strong	National guideline[9]

Recommendations

Diabetes

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All pregnant women who do not have diabetes	Assess for risk of hyperglycaemia and diabetes	At first antenatal visit	Strong	National guideline[9]
Pregnant women who have risk factors for hyperglycaemia and diabetes	Assess using fasting blood glucose level or a serum HbA1c test	At first antenatal visit	Strong	National guideline[9]
All pregnant women who do not have pre-existing diabetes or confirmed gestational diabetes mellitus (GDM) on early screening tests	Perform a 75-g two-hour oral glucose tolerance test	Between 24 and 28 weeks gestation	Strong	National guideline[9]
Preventive activity: Behaviour				
Women with diabetes in pregnancy	Provide regular supervision and support to optimise glycaemic control. Offer advice and resources to promote good glycaemic control including the importance of nutrition and physical activity Refer to specialist services with a multi-disciplinary approach	At diagnosis	Good practice point	National guideline[9]
Women diagnosed with GDM	Register with the National Gestational Diabetes Register Advise follow-up postnatally, including retesting for diabetes and information regarding ongoing risk of diabetes Provide information on preventive strategies	At diagnosis	Strong	National guideline[9]

Recommendations

Vaccinations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All pregnant women	Assess immunisation status	At initial antenatal visit	Strong	National guideline[19]
Preventive activity: Immunisation				
All pregnant women`	Recommend influenza vaccination	Annually	Strong	National guidelines and position statement[19,20]
	Recommend pertussis vaccination	Between 20 and 32 weeks gestation	Strong	
	Recommend COVID-19 vaccination	As per current public health/ Australian Technical Advisory Group on Immunisation guidelines	Strong	

Chromosomal screening

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All pregnant women	Provide information about the availability, purpose and implications of first trimester screening for chromosomal abnormality See Table 1 for type and timing of test	At initial antenatal visit	Strong	National guidelines and position statement[9,21]

Table 1. Screening for common chromosomal abnormalities[9]

Test	Timing
Combined first trimester screening • **Ultrasound of nuchal translucency** • **Maternal plasma β-human chorionic gonadotropin and pregnancy-associated placental protein-A**	Ultrasound: Between 11 weeks and less than 14 weeks Blood test: Between 9 weeks and less than 14 weeks
NIPT (also known as cfDNA testing)	Blood test from 10 weeks
Triple test: α-fetoprotein, β-human chorionic gonadotropin, unconjugated oestrogen **OR** **Quadruple test: triple test plus inhibin A**	Blood test between 14 and 20 weeks

cfDNA, cell-free DNA; NIPT, non-invasive prenatal testing.

Box 1. Risk factors for pre-eclampsia[22]

- History of placental dysfunction-related disease, including pre-eclampsia, fetal growth restriction and placental abruption
- Maternal disease including chronic hypertension, chronic kidney disease, diabetes, auto-immune disease
- First pregnancy or new paternity
- Multiple pregnancy
- Age 40 years or older
- Body mass index 35 kg/m^2 or higher
- Family history of pre-eclampsia
- Pregnancy interval of more than 10 years

Implementation tips

- Ensure your clinic has culturally appropriate health promotion resources related to pregnancy, including smoking cessation, alcohol reduction, healthy eating and physical activity.
- Promote staff training to improve knowledge and confidence in delivering culturally appropriate and trauma-informed antenatal care.
- Support and foster conversations within the clinical environment to ensure a family-systems approach to the delivery of pregnancy care while not compromising women's choices, agency and safety.
- Establish a recall system for antenatal visits, antenatal tests and vaccinations.
- Identify indicators for a clinical audit; for example, how many women are offered first trimester screening and how many chose to undergo testing; how many women were screened for mental health disorders; how many women were identified as at moderate and severe risk of perinatal depression and/or anxiety and what were the care pathways provided to them?

Useful resources

Clinical guidelines and protocols

- National clinical practice guidelines: Pregnancy care racgp.link/3XIJjxd
- Remote Primary Health Care Manuals: *Minymaku Kutju Tjukurpa Women's Business manual* racgp.link/3XrWOA2
- The Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine: *Australian STI management guidelines for use in primary care* racgp.link/4d4cwHr
- KAHPF: Perinatal depression and anxiety protocol using the Kimberly Mum's Mood Scale (KMSS) racgp.link/3XKh15g

Health campaigns and resources

- Replanting the Birthing Trees research project racgp.link/3XIl2r4
- WellMob: Social and emotional wellbeing racgp.link/3ZxjyB4
- KMMS racgp.link/3XKh15g
- Emerging Minds training racgp.link/3zk5yjl
- iSISTAQUIT for pregnant Aboriginal and Torres ait Islander women who want to quit smoking racgp.link/47q0wyJ
- Tackling Indigenous Smoking racgp.link/3ZweIo1
- National Aboriginal Community Controlled Health Organisation: Strong born campaign racgp.link/4elbb0p
- Dental health Aboriginal and Torres Strait Islander resources racgp.link/3Ba1O4P
- Strong Spirit Strong Future racgp.link/3XIHXT0
- YourChoice: Prenatal screening for chromosome conditions racgp.link/3B45Co9

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Chapter 6: Child health

Child growth and development

Dr Kate Armstrong, Ms Karrina DeMasi

Key messages

- Child growth and development is best supported by families and communities that are well resourced and well informed.
- Culture has a central role in optimising the growth and development of Aboriginal and Torres Strait Islander children.[1,2] Other key factors are quality of relationships, good nutrition, adequate physical activity, adequate sleep, learning opportunities and healthy living environments.
- Optimising child growth and development, from conception onwards, can reduce the burden of non-communicable (chronic) conditions across the life course.
- Primary healthcare services, when culturally safe, have a key role in providing preconception, antenatal and early years healthcare, including tracking growth and development and the early identification of and timely response to health needs.[3,4]
- Culturally appropriate and validated developmental tracking tools should be used where possible.[5]
- Growth and/or development that is not on track may have many causes, including nutritional (eg overweight and underweight), congenital/medical conditions, relational–social–emotional issues and community/environmental factors, or a combination of these.[6]
- Children living with chronic health conditions, disability, developmental delay, specific neurodevelopmental disorders (eg fetal alcohol spectrum disorder, attention deficit hyperactivity disorder and autism spectrum disorder) and other growth and development needs require comprehensive, holistic and wrap-around support to achieve their full potential and optimal health outcomes.[7–9]
- Families and kin may need dedicated navigational support to access referred specialist and mainstream services.[10]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Immunisation				
All children	Provide immunisation as per the National Childhood Immunisation Program schedule	As per National Childhood Immunisation Program schedule	Strong	National guideline[11]
Preventive activity: Screening				
All newborn children	Confirm newborn screening tests have been completed and results are known and documented, including: • bloodspot screening (for cystic fibrosis and a range of hormonal and metabolic disorders) • hearing • pulse oximetry (for critical congenital heart disease) • full head-to-toe health check (routine newborn baby assessment)	Full and detailed baby health assessment completed in first 48 hours of life and always prior to discharge from hospital Newborn screening tests are completed within 48–72 hours after birth and results recorded in baby's personal health record	Strong	National frameworks and guidelines[12–14]
All children	Monitor growth, including weight, length and head circumference Document measurements using age and sex-appropriate World Health Organization (WHO) growth charts for ages 0–2 years and Centers for Disease Control and Prevention (CDC) for ages 2–18 years (see Useful resources) Show graphs and discuss with family to raise awareness and promote wellbeing; use charts as educational and engagement tools to promote family engagement in monitoring their child's growth and development Assess age-appropriate nutritional status **Monitor more frequently if there are concerns (either under- or overweight; see Box 1 for approach)**	As per child health checks (eg KAS, ASQ-TRAK) at ages 1, 6 and 7 weeks and 4, 6, 12 and 18 months to coincide with immunisation schedule, then yearly to age 5 years Opportunistically from age 5 to 18 years	Strong	Jurisdictional guidelines[15,16]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
All children	Monitor development using validated developmental milestones tools (eg Key Ages and Stages [KAS]) and Ages and Stages Questionnaire – Talking About Raising Aboriginal Kids [ASQ-TRAK] if trained), including gross motor, fine motor, speech and language, and social interactions Document and discuss with family to raise awareness, promote wellbeing and strengthen engagement in early diagnosis and support processes If developmental concerns are identified: • discuss with parents • arrange for medical/paediatric referral • monitor more frequently • consider referral to National Disability Insurance Scheme (NDIS) for early childhood early intervention	As per child health checks (eg KAS, ASQ-TRAK) at ages 1, 6 and 8 weeks and 4, 6, 12 and 18 months to coincide with immunisation schedule, then yearly to age 5 years Opportunistically from age 5 to 18 years	Strong	National and jurisdictional strategy[15,17]
Children with increased risk factors and in communities with a high prevalence of anaemia/ helminth infections	• Anaemia • Screen for anaemia as per recommendations in Chapter 6: Child health, Childhood anaemia	See Chapter 6 Child Health: 'Childhood anaemia'	Strong	Jurisdictional guideline[15]
All children aged less than 6 years	**Ear health and hearing** Ask parents/carers about: • their child's ear health (recent and longer term) • any concerns about their child's ear health, hearing or communication	Opportunistically	Strong	National guidelines[18,19]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
All children from age 6 months to 5 years	**Ear health and hearing** From the age of 6 months, review children's listening and communication skills development with parents/carers using appropriate checklists Examine appearance of the ear canal and ear drum, and assess movement of the ear drum and middle ear using either simple otoscopy plus tympanometry or pneumatic otoscopy Take an urgent approach to the follow-up of all ear and hearing health concerns as per guidelines (see Useful resources; refer to Chapter 10: Ear health and hearing)	At least six monthly until the age of 4 years, and then one check at age 5 years	Strong	National guidelines[18,19]
Preterm babies (born before 37 weeks) and/or low birthweight babies (less than 2500 g)	Recommend growth and development monitoring as above using corrected age (or condition-specific; eg Down syndrome and Turner syndrome) growth charts where applicable. Maintain a high index of suspicion for neurodevelopmental complications in preterm infants, with targeted approach to follow-up	At least six monthly until the age of 4 years, and then one check at age 5 years and as part of any specialist referral processes Preterm infants to undergo developmental assessment in first 2–2.5 years, corrected age (ie from the due date), with at least two visits in the first year of life and a review at age 2 years to discuss development	Strong	Jurisdictional guidelines[15,16] Narrative review[20]
All parent/s, carer/s and families	**Carer wellbeing** Consider social, cultural and economic determinants of health to identify strengths, stressors and challenges Check maternal wellbeing; consider use of the Kimberley Mums Mood Scale to assess for anxiety or depression (see Useful resources) Consider the use of Good Spirit, Good Life quality of life tool for older carers (see Useful resources)	As clinically indicated, when making referrals and as part of annual health checks and opportunistically	Good practice point	Jurisdictional Aboriginal and international guidelines[15,21]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural				
All children	**Social and emotional wellbeing and Culture** Connect child, parent/s and carer/s with Aboriginal and Torres Strait Islander family supports and programs to build connections and linkages Encourage engagement of parent/s and carer/s with education services (early learning centre, school) Talk about protective behaviours; encourage spending time and talking with family and friends	As clinically indicated, when making referrals and opportunistically	Good practice point	Jurisdictional Aboriginal and international guidelines[15,21] Aboriginal and Torres Strait Islander-specific framework[22]
All children	Promote healthy weight: • Provide health information on healthy living • Share information about healthy weight and avoidance of under- and overweight • Support engagement in antenatal care • Document child growth measurements on growth charts and engage family with the story the growth chart is telling about the child's growth • Consider social and cultural determinants of healthy weight and link discussion to nutritional or health treatment currently being undertaken for children who are under- or overweight • Encourage healthy eating and water as the main drink; avoid/minimise sugary drinks • Promote physical activity as per recommendations for relevant age • Encourage families to minimise television and screen time under age 2 years; after age 2 years, limit to one hour a day with a carer • (Refer to Chapter 2: Healthy living and health risks, Health eating, Physical activity and sedentary behaviour)	As clinically indicated, when making referrals and opportunistically	Strong	Australian and international guidelines[15,23–26]
All women in pregnancy and postnatally	Promote and support breastfeeding: discuss health benefits; consider use of peer and Elder support; face-to-face health professional and postnatal home visits	As clinically indicated, antenatally and postnatally	Strong	Jurisdictional Aboriginal guideline and national strategy[15,26,27]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural (continued)				
All parent/s, carer/s and families	Provide nutritional education, information and practical support as needed, particularly with the introduction of solids Nutritional counselling and training to target both families and community workers Support parent/s and carer/s to access culturally appropriate parenting training, support and guidance when available and indicated	Opportunistically	Strong	National and international guidelines[15,25,26]
Children in families experiencing socioeconomic hardship or psychosocial stress	Provide home visiting support by referral to an early support program Ensure regular communication between primary healthcare staff and other agencies so that nutritional support programs and specialist referrals are integrated with psychosocial support	Opportunistically	Good practice point	Jurisdictional Aboriginal guideline[15]
Preventive activity: Medication				
Children born preterm or with low birthweight (less than 2500 g) from birth to age 1 year	Consider multivitamin (Pentavite 0.45 mL oral daily) and iron supplements	As clinically indicated	Conditional	Jurisdictional Aboriginal guideline[15]
Preventive activity: Environmental				
Health services and practices in settings with a high prevalence of inadequate housing and living conditions, including food insecurity and financial disadvantage	Consider community food supplementation programs on a short-term basis to overcome food security challenges, providing they have the support of the community and are part of a multifaceted approach	Opportunistically as indicated for all ages	Good practice point	Individual study[28] National and jurisdictional Aboriginal and Torres Strait Islander report and submission[29,30]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Environmental (continued)				
Health services and practices	Regularly share messaging on hand washing, nose blowing and other respiratory techniques (eg Blow Breathe Cough activity; see Useful resources) as appropriate for age and stage of development to promote ear and hearing health	Opportunistically	Good practice point	Australian resources and guidelines[31–33]
Health services and practices in settings where environmental and living conditions have a strong contribution (environmental attribution) to communicable disease transmission and other conditions such respiratory infections, otitis media, strongyloidiasis and other helminths and iron deficiency anaemia	Know about diseases with a high environmental attribution Develop a safe clinical relationship in order to ask sensitively about housing and living conditions (inadequate housing facilities, access to health hardware, such as working plumbing for clean drinking water and washing facilities, access to hygiene and sanitation supplies) Know about local arrangements for environmental health referral Offer an environmental health referral according to local arrangements, ensuring consent is obtained when a home visit is involved Advocate with Aboriginal and Torres Strait Islander leaders for adequate housing, facilities for washing and general living conditions Provide community-based health promotion about environmentally attributable diseases **Check local guidelines**	Opportunistically, in response to any diagnosis or condition with an environmental attribution and as part of general healthcare	Good practice point	National and international narrative reviews[25,34]

Box 1. Considerations for a culturally safe approach to growth monitoring and action plans

- Refer to comprehensive clinical approaches to growth as outlined in the CARPA standard treatment manual[15] and the Royal Children's Hospital's slow weight gain clinical guidelines (racgp.link/3zlnryx) and overweight management approaches (racgp.link/3XnoupE).
- Ensure culturally safe approaches underpin all actions at all times.
- Always ensure an Aboriginal health worker or practitioner, Aboriginal maternal infant care worker or other trusted community member, as agreed by the parent(s)/carer(s), is involved when family vulnerabilities are identified.
- Identify strengths and protective factors within the family.
- Document parent/carer concerns and the barriers they perceive to breastfeeding and healthy nutrition.
- Consider broader social and cultural determinants of health when a child is under- or overweight. Explore issues of finances, transport, home storage (fridge) availability, the number of people living at home, food preferences, the availability food preparation equipment, facilities to maintain hygiene and hygiene practices.
- Ensure the family has adequate information, resources and supports in place to optimally manage any comorbidities or chronic health conditions.
- Assist family as needed to navigate mainstream services in a timely and culturally safe way, and ensure strong recall and follow-up processes are in place (eg to safeguard against staff turnover).
- Involve the parent(s)/carer(s) in coming up with solutions to problems and focus on finding solutions that are practical and context specific, paying particular attention to family needs and resources.
- Give information about appropriate weaning foods and amounts.
- Consider linking the child to a multidisciplinary team approach involving Aboriginal health workers, community nurse, family support worker and dietician if there are indications that the child is at any risk of slow weight gain or showing early signs of growth faltering.
- Begin the next health check by reviewing the previous action plan.

Implementation tips

- Leverage immunisation appointments to promote routine and opportunistic growth and development tracking and health checks.
- For children with chronic conditions and/or multimorbidities:
  - provide regular review
  - make sure they are accessing a breadth of primary care (eg immunisation, dental care)
  - support close collaboration between paediatric specialist and primary healthcare team to provide integrated care
  - ensure a chronic disease management plan is in place, where appropriate
  - provide support to attend appointments and in navigating the service system
  - be aware of eligibility criteria for NDIS and support access, where appropriate.

Useful resources

Growth charts

- WHO growth charts racgp.link/3XrGoaM
- CDC growth charts racgp.link/3BiTorG

Other resources for health professionals

- The Kids Research Institute Australia: developmental milestones resources racgp.link/47x4aqI
- Western Australian Government's Child and Adolescent Health Services: Aboriginal child health resources racgp.link/4d4eCXP
- WA Government factsheet: What is child development? racgp.link/3BhSsnt
- NSW Health: Child health and development resources racgp.link/3ZtmKxM
- NDIS: Early childhood approach racgp.link/4gtDmLL
- Kimberley Mum's Mood Scale racgp.link/3XKh15g
- Kimberley Mum's Mood Scale training manual racgp.link/3B6h3M9

Tools

- ASQ-TRAK tools racgp.link/4glvvA9
- Good Spirit, Good Life: A quality of life tool and package racgp.link/3zp0R8f

Patient and family resources

- Raising Children: Factsheets for Aboriginal and Torres Strait Islander families racgp.link/4gpPuNX
- Milpa's Six Steps to Stop Germs racgp.link/3TwukDT
- Hearing Australia: Blow Breathe Cough activity racgp.link/4grrMki
- Eat For Health: Aboriginal and Torres Strait Islander guide to healthy eating racgp.link/4e5iCs6
- Eat For Health: Aboriginal and Torres Strait Islander dietary guidelines poster racgp.link/3zpRxRt
- NSW Government: Raising them strong: Caring together – caring for kids with a disability racgp.link/3XKibxE

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Chapter 6: Child health

Childhood anaemia

Mr Luke Ruane

Key messages

- Anaemia is a common problem among infants and children globally and is most commonly due to iron deficiency.[1,2]
- Iron deficiency anaemia (IDA) can impact childhood growth and development including brain, psychomotor and social development, as well as increasing susceptibility to infections.[3]
- IDA is common in Aboriginal and Torres Strait Islander children, particularly in remote Australia, and requires preventive measures, early detection and effective treatment strategies.[4–6]
- Low maternal iron stores, inadequate growth in utero, delayed commencement or progression of solids, low dietary iron intake, a high incidence of parasitic infection, environmental factors (eg food insecurity and poor environmental and living conditions) and social disadvantage are significant risk factors for IDA.[7–9]
- Treating maternal anaemia in pregnancy is a major contributor to ensuring adequate iron stores and preventing anaemia in infants.[7,10]
- Early preventive treatment to improve iron stores in babies born small for gestational age or preterm and in other high-risk children can substantially reduce the risk of anaemia in infancy and early childhood.[6]
- IDA in infancy and childhood requires treatment but rarely extra investigation unless it does not respond to treatment.[11]
- Multicomponent interventions, including supplementary iron for infants at increased risk, improving access to nutritious foods, food fortification and treating hookworm and other intestinal parasites, have proven effective and need to be tailored for specific community contexts.[12]

Recommendations

Who/target population	What	When	Strength of recommendation	Keysource(s) and reference(s)
Preventive activity: Screening				
Pregnant and breastfeeding women	Encourage iron-rich diet Check full blood count (FBC) and iron studies/ferritin Supplement with oral or intravenous iron if iron deficient	Antenatally and postnatally Test Hb at first antenatal visit and at 28 weeks gestation and consider iron studies at first antenatal visit and at 36 weeks gestation if in a high-risk area	Strong	National guideline[13]
All children from birth	Provide regular child health checks to monitor growth and development (see Chapter 6: Child health, Child growth and development)	As per jurisdictional guidelines	As per jurisdictional guidelines	Jurisdictional guideline[12]
Preventive activity: Increased screening				
Children with higher risk of IDA[B]: **maternal and birth factors, including maternal iron deficiency in pregnancy, prematurity (<32 weeks gestation), low birth weight (<2500 g), multiple birth** **infant factors, including delayed introduction of iron-rich food; early introduction of cow's milk; poor growth/ growth that is not on track; poor environmental and living conditions (eg food insecurity, overcrowding, lack of functioning housing infrastructure), other significant medical conditions** **All children aged >6 months from communities with a high prevalence of IDA**	Measure haemoglobin (Hb), ideally via non-invasive point-of-care testing device, or capillary sample[A] Use age-appropriate Hb levels to diagnose anaemia	At age 6 months If normal, repeat six monthly to age 2 years and then yearly to age 5 years	Strong	Jurisdictional guidelines[11,12]

Recommendations

Who/target population	What	When	Strength of recommendation	Keysource(s) and reference(s)
Preventive activity: Increased monitoring				
All children: **with Hb less than 90 g/L** **with persistent anaemia after treatment with iron supplements** **if unwell with signs/ symptoms like bruising or bleeding**	Perform FBC	If IDA is diagnosed and treatment is required, test after three months Screen every six months to age 5 years once Hb is normal	Good practice point	Jurisdictional guideline[12]
Preventive activity: Behavioural				
All children/carers of children	Support mothers to breastfeed or use appropriate infant formula Advise parents/carers to avoid giving the infant cow's milk (fresh, powdered or long-life) before the age of 1 year Advise that clean water can be given to infants after age 6 months, and support the avoidance of other drinks (tea, sweet drinks, fruit juice) in childhood Encourage solid food intake by the age of 6 months, including iron-rich food (meat, fortified cereals, leafy green vegetables) and vitamin C-containing foods with meals	First year of life at all visits as required	Good practice point	National guidelines[12,14,15]
Preventive activity: Medication				
Children aged 1–12 months with the following risk factors: maternal iron deficiency in pregnancy, prematurity (<35 weeks gestation), low birth weight (<2500 g), multiple birth[B]	Prescribe preventive oral iron supplementation, especially in communities where the prevalence of anaemia is high	Check local guidelines for starting age or start iron supplementation in consultation with paediatrician	Strong	Jurisdictional guidelines[11,12]
Children aged 6 months – 16 years in areas with high rates of intestinal parasite infections[B]	Consider treatment as part of a systematic child health surveillance program in consultation with local public health units	Every six months	Good practice point	Jurisdictional guideline[12]

Recommendations

Who/target population	What	When	Strength of recommendation	Keysource(s) and reference(s)
Preventive activity: Environmental				
Children with IDA	Include children on recall registers for regular review and Hb repeat testing after treatment and, once Hb is normal, continue to screen Hb every six months	Six monthly until not considered at risk	Strong	National and jurisdictional guidelines[12,15]
Communities with a known high prevalence of IDA	Support strategies that improve nutrition and food security, including improving the range and accessibility of healthy foods	Immediately and ongoing	Good practice point	National and jurisdictional guidelines[12,15]
Health services and practices in settings where environmental and living conditions have strong contribution (environmental attribution) to communicable disease transmission and other conditions, such as IDA and strongyloidiasis	Know about diseases with a high environmental attribution Develop a safe clinical relationship in order to ask sensitively about housing and living conditions (inadequate housing facilities, access to health hardware such as working plumbing for clean drinking water and washing facilities, access to hygiene and sanitation supplies) Know about local arrangements for environmental health referral Offer an environmental health referral according to local arrangements, ensuring consent is obtained when a home visit is involved Advocate with Aboriginal and Torres Strait Islander leaders for adequate housing, facilities for washing and general living conditions Provide community-based health promotion about environmentally attributable diseases **Check local guidelines**	Opportunistically, in response to any diagnosis or condition with an environmental attribution and as part of general healthcare	Good practice point	National and international narrative reviews[16,17]

Implementation tips

- Make sure iron is safely stored to prevent accidental poisoning.
- Advise parents how to optimise absorption:
  - Although iron is best absorbed on an empty stomach, taking it can cause an upset tummy, which may be reduced by taking it with a small amount of food.
  - Taking some vitamin C or drinking orange juice with the iron can help it be absorbed.
  - Avoid milk, tea, high-fibre foods (eg whole grains and raw vegetables) and foods containing caffeine (eg chocolate and some sugary drinks) at the time of taking iron because they can interfere with iron absorption.
- Advise parents of the side effects and how to manage them, including:
  - iron preparations can make a child's stool black in colour and may cause constipation, which can be managed by diet and/or laxatives
  - oral iron preparations may stain a child's teeth; in older children, consider having the child drink the iron preparation through a straw and brush the child's teeth after administration
  - twice-weekly dosing has been shown to be as effective as daily dosing.[6]

Useful resources

Clinical guidelines

- Remote Primary Healthcare Manuals: *CARPA standard treatment manual*, eighth edition racgp.link/3B8dEMK
- The Royal Australian College of General Practitioners (RACGP): *Guidelines for preventive activities in general practice* racgp.link/3XrWRM3
- Australian pregnancy care guidelines racgp.link/3XInqy2
- The Royal Children's Hospital Melbourne: Clinical practice guidelines – Iron deficiency racgp.link/3XK7KKD
- The Royal Children's Hospital Melbourne: Clinical practice guidelines – Anaemia racgp.link/3XIrl2o
- National Health and Medical Research Council of Australia: *Infant feeding guidelines* racgp.link/3XKomlm

Other resources for health professionals

- National Blood Authority: Managing my iron fact sheet – general information and tips to reduce side effects from oral iron racgp.link/3ZyyYoG
- World Health Organization (WHO): *Nutritional anaemias: Tools for effective prevention and control* racgp.link/3ZqX7O0
- WHO: *Accelerating anaemia reduction: A comprehensive framework for action* racgp.link/3TvQlTm
- WHO: *Guideline: preventive chemotherapy to control soil-transmitted helminth infections in at-risk population groups* racgp.link/3Tualpm

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Chapter 6: Child health

Childhood kidney disease

Professor Hasantha Gunasekera

Key messages

- The high prevalence and risk of chronic kidney disease (CKD) in Aboriginal and Torres Strait Islander populations is explained by the impact of colonisation, systemic racism and social determinants of health, and is not intrinsic to being Aboriginal and/or Torres Strait Islander.[1–6]
- Addressing these determinants, including housing improvements, ensuring food security and creating better access to culturally safe healthcare, is key to preventing CKD in this population.[6–10]
- To be effective, strategies to prevent CKD need to be led by Aboriginal and Torres Strait Islander people.[1,11]
- Primary care has a key role in optimising maternal health and in the early identification and treatment of risk factors for CKD throughout the life course.[1,11]
- There is no evidence to recommend routine urinalysis and blood pressure screening in children,[12] except where a child has a high-risk condition such as overweight and obesity, diabetes, congenital heart disease, low birth weight or a strong family history of CKD.[13,14]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All children without a high-risk condition	**Do not** routinely screen children for kidney disease using urinalysis or blood pressure measurement	N/A	Strong	Aboriginal and Torres Strait Islander-specific specific single study[2] International guideline[15]
Children with a high-risk condition: obesity, congenital heart disease, strong family history of CKD and history of low birth weight **For children with diabetes, see below**	Routine urinalysis and blood pressure surveillance is recommended	Opportunistically	Good practice point	International guideline[16]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
Children with asymptomatic proteinuria	**Do not** routinely investigate with renal ultrasound	N/A	Strong	National and international guidelines[17,18]
Children living in communities with a high prevalence of skin infections (scabies and impetigo)	Check skin for scabies and impetigo, and treat according to management guidelines (see Useful resources)	Opportunistically	Good practice point	Jurisdictional and national guidelines[19,21]
Children with first episode of urinary tract infection (UTI)	Assess the need for imaging tests based on treatment response within 48 hours and whether sepsis, atypical organism, poor urinary stream, abdominal mass or renal impairment are present	As clinically indicated	Conditional	National and international guidelines[17,18]
Children with type 1 and type 2 diabetes	Check the albumin to creatinine ratio using single voided specimen; morning specimen preferred Abnormal screening tests should be repeated because microalbuminuria may be transient Check blood pressure annually	At age 10 years or at puberty (whichever is earlier), after two to five years diabetes duration, then annually thereafter	Strong	National and international guidelines[13,14]
Preventive activity: Behavioural				
Children who have had one or more UTIs	Identify and address predisposing factors for recurrence (including constipation, dysfunctional voiding, poor fluid intake and delays in voiding)	As clinically indicated	Strong	International guidelines[18]
Children living in communities with a high prevalence of skin infections (scabies and impetigo)	Recommend access to community swimming pools	Opportunistically	Conditional	Systematic review[20]
Preventive activity: Medication				
Children with UTI	Treat as per guidelines (see Box 1)	As clinically indicated	Strong	National guideline[17]
Household contacts of children with scabies	Treat with 5% permethrin cream if aged >2 months, and sulfur 5% or crotamiton cream if aged <2 months	As clinically indicated	Conditional	National guideline[21]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medication (continued)				
Children with recurrent UTIs	**Do not** routinely recommend probiotic therapy or cranberry products for the prevention of recurrent UTIs	N/A	Strong	Systematic reviews[22,23]
Children living in communities with a high prevalence of skin infections (scabies and impetigo)	Community-based interventions that use screening and immediate treatment of skin sores and scabies in targeted age groups may be combined with simultaneous treatment of the whole community or scabies (see Useful resources)	As required	Conditional	Aboriginal and Torres Strait Islander-specific national and jurisdictional guidelines[19,21]
Preventive activity: Environmental				
Health services and practices in settings where environmental and living conditions have a strong contribution (environmental attribution) to communicable disease transmission, including skin infections, and other conditions such as mental health issues	Know about diseases with a high environmental attribution Develop a safe clinical relationship in order to ask sensitively about housing and living conditions (inadequate housing facilities, access to health hardware such as working plumbing for clean drinking water and washing facilities, access to hygiene and sanitation supplies) Know about local arrangements for environmental health referral Offer an environmental health referral according to local arrangements, ensuring consent is obtained when a home visit is involved Advocate with Aboriginal and Torres Strait Islander leaders for adequate housing, facilities for washing and general living conditions Provide community-based health promotion about environmentally attributable diseases **Check local guidelines**	Opportunistically, in response to any diagnosis or condition with an environmental attribution and as part of general healthcare	Good practice point	International and Aboriginal and Torres Strait Islander-specific narrative reviews[24,25]

Box 1. Acute management of children with urinary tract infection/pyelonephritis[A,B] (CARI guidelines[17])

Child with asymptomatic bacteriuria (ie bacterial growth in urine with no symptoms)

- No treatment is required[17,18,22]

Child with presumed UTI (ie symptoms and positive leucocytes and/or nitrites on urinalysis)

- **Low risk** (not septic, can tolerate oral medications)

Age	**No pyelonephritis** (eg cystitis)	**Pyelonephritis** (fever >38°C with loin pain/tenderness)
<1 month	Intravenous antibiotics	Intravenous antibiotics
≥1 month	Oral antibiotics for 2–4 days	Oral antibiotics for 7–10 days

- **High risk** (septic, dehydrated or cannot tolerate oral medications)

Age	**No pyelonephritis**	**Pyelonephritis** (fever >38°C with loin pain/tenderness)
All ages	Intravenous antibiotics	Intravenous antibiotics

[A] The National Institute for Heath and Care Excellence guidelines[18] are very similar but use an age cut-off of 3 months rather than 1 month and include referral to a paediatrician.

[B] The American Academy of Paediatrics guidelines[22] are similar but use an age cut-off of 2 months and recommend a minimum seven-day antibiotic course for all children with a urinary tract infection (UTI).

Useful resources

Clinical guidelines

- CARI guidelines: *Recommendations for culturally safe and clinical kidney care in First Nations Australians* racgp.link/3TuvQq8
- McTaggart S, Danchin M, Ditchfield M, et al. KHA-CARI guideline: Diagnosis and treatment of urinary tract infection in children. Nephrology (Carlton) 2015;20(2):55–60. doi: 10.1111/nep.12349
- The Kids Research Institute Australia: *National healthy skin guidelines* racgp.link/3MNa8Kl
- Northern Territory (NT) Department of Health: *Public health management of acute post-streptococcal glomerulonephritis (APSGN)* racgp.link/4gtXayU
- Kimberley APSGN guidelines racgp.link/3zm7MPq
- Clinical practice guideline for screening and management of high blood pressure in children and adolescents. racgp.link/4eT8Rxm
- Guidelines for the community control of scabies, skin sores, tinea and crusted scabies in the Northern Territory racgp.link/4dbMa6n

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Chapter 6: Child health

Fetal alcohol spectrum disorder

Dr Robyn Williams

Key messages

- Fetal alcohol spectrum disorder (FASD) is a leading, preventable cause of neurodevelopmental disability, including intellectual disability, and has significant health and social impacts from birth to death.[1–4]
- FASD occurs across all groups of society in populations that use alcohol.[5,6]
- FASD is caused by prenatal exposure to alcohol; thus, primary prevention of FASD requires prevention of alcohol use in pregnancy.[3,7]
- A large number of pregnancies are not planned, and this can result in prenatal exposure to alcohol before the pregnancy is recognised.[5,8,9]
- Prevention of FASD in Aboriginal and Torres Strait Islander populations requires community-led partnerships and strategies across health, education and social sectors.[10–13]
- Key roles for general practitioners (GPs) and primary care teams in **the primary prevention of FASD** include:
  - providing information and advice about the harms of alcohol in pregnancy and as part of preconception care[14]
  - asking all pregnant patients about their alcohol use and advising on its harms to the pregnancy and the unborn child[15,16]
  - increasing community awareness of the harms of alcohol use in pregnancy and of FASD.[8,13–15,17–20]
- Key roles for GPs and primary care teams in **identifying and managing FASD** include:
  - early identification and intervention[18,21–23]
  - referring for specialist care when required, including to diagnostic services[24,25]
  - overseeing and coordinating care for the individual diagnosed with FASD and supporting their family.[26]
- The 2020 *Australian guide to the diagnosis of FASD* provides critical information for healthcare providers on the diagnosis, referral and management of FASD.[3]
- Successful outcomes are more likely when interventions supporting both the individual with FASD and family/carers are strengths-based and culturally appropriate, and management decisions are made with input from families and educators.[27,28]

Recommendations

Prior to conception and during pregnancy

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
Adults aged over 18 years **Women who are pregnant or planning pregnancy**	Ask about alcohol use and use a validated screening tool, such as Alcohol Use Disorders Identification Test – Consumption (AUDIT-C) or Indigenous Risk Impact Screen (IRIS), which detects hazardous and harmful alcohol use and dependence See Chapter 2: Healthy living and health risks, Alcohol	At diagnosis of pregnancy and in each trimester, as well as during planning prior to pregnancy	Strong	National guidelines[7,29] Systematic reviews[30,31]
Preventive activity: Behavioural				
All women who could become pregnant	Provide advice consistent with National Health and Medical Research Council recommendations on reducing alcohol related health risks (refer to Chapter 2: Healthy living and health risks, Alcohol), namely that alcohol can cause harm and should be avoided during pregnancy	Opportunistically and as clinically indicated according to the level of risk of harmful drinking	Strong	National guidelines[7,29]
All women who could become pregnant	Ask about pregnancy intention: 'Would you like to become pregnant in the next year?' If 'No', provide contraceptive advice as appropriate to individual preference and to support intentional pregnancy See Chapter 5.1: Preconception care	Opportunistically and as clinically indicated	Good practice point	International guideline[34] Global initiative[33]
Women who report any alcohol use prior to conception, identification of pregnancy or during pregnancy	Conduct brief intervention (Box 1) to reduce alcohol consumption and use motivational interviewing techniques (refer to Useful resources for recommended tools) Offer individualised, structured education and strategies to reduce and manage risk factors of alcohol use and pregnancy	Opportunistically, in preparation for pregnancy, at each antenatal visit	Good practice point	Systematic reviews[30,31]
Women identified at risk of harm from alcohol	Provide contraceptive advice as appropriate to support intentional pregnancy Provide information about the risk of prenatal exposure to alcohol in an unintended pregnancy/prior to a pregnancy being identified Conduct a brief intervention (Box 1) to reduce alcohol consumption and use motivational interviewing techniques (refer to Useful resources for recommended tools)	Opportunistically and as clinically indicated	Strong	National guidelines[7,29] Single studies[30,34-36]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural (continued)				
Women identified at risk of harm from alcohol	Consider referral to alcohol/drug treatment service for counselling, withdrawal management and pharmacotherapy	Opportunistically and as clinically indicated	Good practice point	National guideline[37]
Health services and practices in communities where hazardous or harmful alcohol use is prevalent	Advocate with Aboriginal and Torres Strait Islander leaders for strategies to reduce alcohol-related harms. These could include: • community-led programs that strengthen and support families and build capacity in community members and health organisations • advocacy for 'dry' communities and other community-led restrictions • floor pricing on alcohol • support for restrictions to liquor licensing laws	Opportunistically	Strong	Local guidelines and community-based studies[8,13,14,17–20]

For secondary prevention and support

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All children	Assess child growth and development, particularly head circumference, hearing and vision, and developmental milestones (refer to Chapter 6: Child health, Child growth and development)	Opportunistically and as part of early years developmental tracking and other health assessments in low-risk, non-alcohol-exposed pregnancies	Strong	National framework[38]
All children exposed to alcohol in the prenatal period (AUDIT-C score >0 in any trimester), or if there is parental or clinician concern about the child not meeting normal developmental milestones (refer to Useful resources)	Assess child development and behaviour using a validated assessment tool, including for child social and emotional wellbeing (refer to Useful resources) Refer to a paediatrician/child development service for developmental assessment (Table 1)	Opportunistically and as part of early years developmental monitoring and/or other health assessment	Good practice point	National guideline[3] Position statement[39]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
All children at high risk of FASD, including children with siblings with FASD, or those coming into contact with the child protection, police or justice systems	Screen for prenatal alcohol exposure Assess child growth and development, particularly head circumference, hearing and vision, and developmental milestones, including screening for cognitive, language and behavioural problems	Opportunistically and as part of early years developmental monitoring and/or other health assessment, including on initial contact with child protection, police or justice systems	Strong	National guideline[3] Single study[9] Systematic review[40]
Preventive activity: Behavioural				
Families or carers supporting a child living with FASD	Refer to a parent/caregiver support program if available and culturally appropriate (See Useful resources)	Opportunistically and as clinically indicated	Good practice point	Literature review [41] Systematic review[25]
School-aged children with FASD with behavioural challenges in school and community	Refer to an allied health specialist or therapy-focused services, especially those offering interventions targeting executive function (eg mental processes involved in planning, attention, remembering instructions and managing multiple tasks)	Opportunistically and as clinically indicated	Good practice point	Systematic review[25] Jurisdictional report[42]
Children with FASD, family, caregivers	Refer to a developmental paediatrician and consider referral to a psychologist	As clinically indicated	Good practice point	Systematic review and meta-analysis[43] Aboriginal and Torres Strait Islander-specific single studies[18,45]
Preventive activity: Medication				
Children with FASD with sleep disturbance and attention-deficit/hyperactivity disorder (ADHD)	Consider specialist referral (paediatrician, child/adolescent psychiatrist) to assess the need for medications for hyperactivity, sleep or mood disorders, seizures or behavioural problems	As clinically indicated	Conditional	Literature review and treatment guideline[44,45]

Useful resources

Clinical guidelines

- *FASD diagnostic guidelines* racgp.link/3MQrFkV
- University of Sydney: *Guidelines for the treatment of alcohol problems* (includes FLAGS brief intervention model) racgp.link/3MIpGPA
- National Drug and Alcohol Research Centre, UNSW: Supporting pregnant women who use alcohol or other drugs: *A guide for primary health care professionals* racgp.link/3zm8sEs
- NSW Health: *Health workers guide to yarning about alcohol and pregnancy* racgp.link/3MNAc87
- Northern Territory Government, Remote Alcohol and Other Drugs Workforce Program and Menzies School of Health Research: Yarning about alcohol and pregnancy racgp.link/3MPiwJs
- Medicare Benefit Schedule billing information racgp.link/4d6mqbn

Training resources

- National Aboriginal Community Controlled Health Organisation (NACCHO): Strong Born Campaign racgp.link/4elbb0p
- FASD Hub eLearning modules racgp.link/3MPx0sG
- Drug and Alcohol Office Western Australia (WA): 'Strong Spirit Strong Future: Promoting healthy women and pregnancies', a culturally secure training and education resource for health professionals (WA only); for training, email AOD.training@mhc.wa.gov.au

Supporting conversations and brief interventions

- Strong Born: booklet for health professionals racgp.link/47x6sGk
- NSW Department of Health: *Health workers guide to yarning about alcohol and pregnancy* racgp.link/4ehoEWu
- Foundation for Alcohol Research and Education racgp.link/47vu65V

Validated screening tools for child development and social and emotional wellbeing

- Department of Health: 'Developmental surveillance and health monitoring', *National framework for universal child and family health services* racgp.link/3MLyLa6
- ASQ racgp.link/3MLyLa6
- Video on ASQ-TRAK racgp.link/4gsuZQz
- Royal Children's Hospital Melbourne, Centre for Community Health: Parents' Evaluation of Developmental Status (PEDS) racgp.link/3zb4FKl

Assessing child developmental milestones (0–5 years)

- Centers for Disease Control and Prevention (CDC) milestone tracker (application for IOS to assess developmental milestones in children aged 2 months – 5 years) racgp.link/4gpS0DT
- Queensland Health: 'Red flags' early identification guide (for children aged 0–5 years; developed by Queensland Health, adapted by the Central Queensland Hospital and Health Service) racgp.link/4go8353

National Disability Insurance Scheme (NDIS) links

- Children with developmental delay racgp.link/3XMF6Zx
- Eligibility and medical conditions FAQ racgp.link/47yjhQG

Community resources

- National Organisation for FASD Australia (NOFASD) racgp.link/3Zto4Ro
- NOFASD support and resource hub for parents, carers and families racgp.link/4ddmCFM
- NOFASD Helpline 1800 860 613
- FASD Hub Australia racgp.link/4gqFJPE
- Every moment matters resource hub racgp.link/4daulyU
- Learning with FASD racgp.link/3XMoQHY
- Early Childhood Australia: *Through different eyes: Understanding young children living with fetal alcohol spectrum disorder* racgp.link/47qNLUx

Box 1. FLAGS (Feedback, Listen, Advice, Goals, Strategies) framework for brief intervention to guide practitioners to sensitively and appropriately ask about alcohol (based on Haber et al[27])

Feedback	• Provide individualised feedback about the risks associated with continued drinking, based on current drinking patterns, problem indicators and health status • Discuss the potential health problems that can arise from risky alcohol use
Listen	• Listen to the patient's response • This should spark a discussion of the patient's consumption level and how it relates to general population consumption and any false beliefs held by the patient
Advice	• Give clear advice about the importance of changing current drinking patterns and a recommended level of consumption • A typical 5- to 10-minute brief intervention should involve advice on reducing consumption in a persuasive but non-judgemental way • Advice can be supported by self-help materials, which provide information about the potential harms of risky alcohol consumption and can provide additional motivation to change
Goals	• Discuss the safe drinking limits and assist the patient to set specific goals for changing patterns of consumption • Instil optimism in the patient that their chosen goals can be achieved • It is in this step, in particular, that motivation-enhancing techniques are used to encourage patients to develop, implement and commit to plans to stop drinking
Strategies	• Ask the patient to suggest some strategies for achieving these goals • This approach emphasises the individual's choice to reduce drinking patterns and allows them to choose the approach best suited to their own situation • The individual may consider setting a specific limit on alcohol consumption, learning to recognise the antecedents of drinking and developing skills to avoid drinking in high-risk situations, pacing one's drinking and learning to cope with everyday problems that lead to drinking

Table 1. Diagnostic criteria and categories for fetal alcohol spectrum disorder[3]

Fetal alcohol spectrum disorder (FASD)		
Diagnostic criteria	**Diagnostic categories**	
	FASD with three sentinel facial features	FASD with less than three sentinel facial features
Prenatal alcohol exposure	Confirmed or unknown	Confirmed
Neurodevelopmental domains	Severe impairment in at least three neurodevelopmental domains	Severe impairment in at least three neurodevelopmental domains
– Brain structure/neurology		
– Motor skills		
– Cognition		
– Language		
– Academic achievement		
– Memory		
– Attention		
– Executive function, including impulse control and hyperactivity		
– Affect regulation		
– Adaptive behaviour, social skills or social communication		
Sentinel facial features	Presence of three sentinel facial features	Presence of none, one or two sentinel facial features
– Short palpebral fissure		
– Smooth philtrum		
– Thin upper lip		

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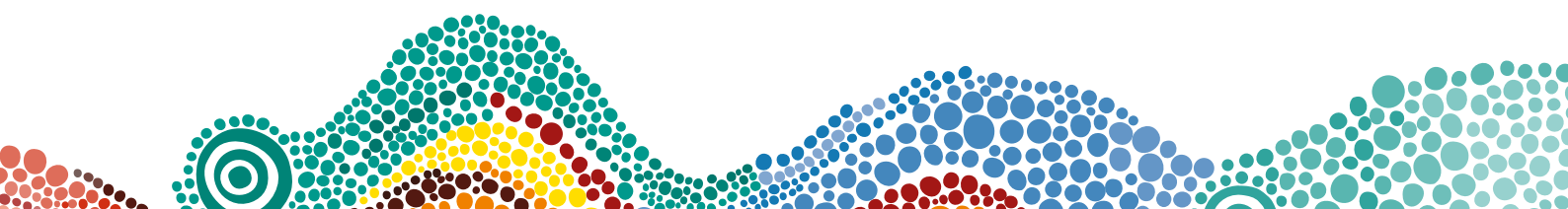

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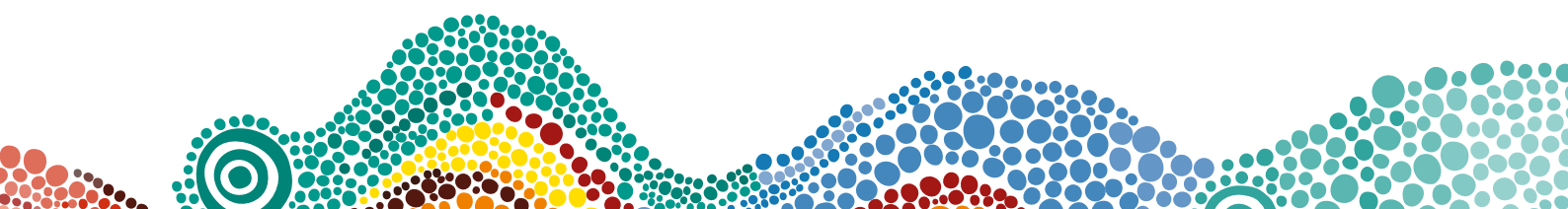

Chapter 7: The health of young people

Introduction

Dr Annapurna Nori

Introduction

In this chapter, the terms 'youth', 'young people' and 'adolescents' refer to people aged 12–24 years. This is consistent with the definition used by the Australian Institute of Health and Welfare (AIHW).[1] It is important to note this definition differs from the World Health Organization recommended age range of 10–19 years[2] and the United Nations definition (for statistical purposes) of 15–24 years.[3]

From an individual perspective and according to the AIHW:

> *Youth is a key transition period in a person's life. The health of young people can influence how likely they are to achieve better educational outcomes, make a successful transition into full-time work, develop healthy adult lifestyles, and experience fewer challenges forming families and parenting.*[1]

The health of young people also has societal importance because it is:

> *…a developmental stage in which investments in health bring a triple dividend of reduced death and disability during these years, healthier trajectories across the life-course, and the best possible start for the next generation.*[4]

Preventive health issues for young people are very broad, and several areas relevant to Aboriginal and Torres Strait Islander youth, such as smoking, nutrition, physical activity, overweight and obesity, alcohol, depression and suicide, are addressed in other chapters in this guide. Although injuries, including road trauma and self-inflicted injury, are significant causes for concern in Aboriginal and Torres Strait Islander youth,[4] they are secondary to mental illness and substance use, and addressing these is critical in reducing morbidity and mortality due to injuries.

This chapter has four parts:

- An overview highlighting key messages and guidance for health professionals regarding cul-tural considerations and youth-friendly environments, followed by a summary of youth de-velopment, protective and risk factors and specific considerations relating to Aboriginal and Torres Strait Islander youth
- Social emotional wellbeing
- Sexual and reproductive health
- Substance use in adolescence.

Overview

Key messages

- Young people have health needs that are different from those of children and adults.
- Almost 80% of causes of mortality in Aboriginal and Torres Strait Islander youth are avoidable (which includes those that are preventable and/or treatable), and almost all of those are preventable.[4]
- Good engagement with healthcare during adolescence is the beginning of an independent journey of health engagement to benefit the young person's later life.
- Health providers should have a respectful attitude to cultural identity and connections.
- Strengths-based approaches are the most effective and expected in health service delivery for Aboriginal and Torres Strait Islander people.
- Youth-friendly and culturally safe engagement with Aboriginal and Torres Strait Islander young people sets a trajectory for their developmental progress and healthcare journey.
- Codesigning service delivery with Aboriginal and Torres Strait Islander young people is an effective strategy to improve engagement.
- Young people should have access to healthcare that is confidential within the context of families, communities, governments and legal systems.[5]

How health professionals can support Aboriginal and Torres Strait Islander young people

The *National action plan for the health of children and young people 2020–2030* recognises there are several key life stages and transition points that provide opportunities to engage young people in preventive healthcare to enhance protective factors and provide effective interventions to support positive health and wellbeing outcomes.[6] Health professionals can support Aboriginal and Torres Strait Islander young people's health and growth through strengths-based approaches and an empathic understanding of their needs.

Consistent with Aboriginal and Torres Strait Islander holistic perspectives on health, strengths-based approaches are now accepted as the expected and necessary norm in health service delivery to the Aboriginal and Torres Strait Islander population.[7] Such approaches focus on the strengths and capabilities of an individual and the community, advocate for a positive sense of cultural identity and acknowledge there is potential for change, growth and success.[8] Promoting the strengths of young people can be the beginning of an independent journey of health engagement to benefit the young person's later life. This is a departure from a deficit approach, which focuses on disease risk factors.

Aboriginal and Torres Strait Islander and non-Indigenous young Australians are concerned about confidentiality, privacy and the cost of care and medications, and may be embarrassed to discuss sexual and other highly sensitive matters or access contraception. Health professionals may be unsure how to engage with young people and may be uncomfortable discussing health risks. This can result in young people being reluctant to seek information or help from health professionals. Acquiring skills in youth engagement and providing youth-friendly environments will help with better engagement of young people.[9]

Cultural safety

It is imperative that the rights of Aboriginal and Torres Strait Islander young people are respected so they are supported in feeling proud of their identity and culture. Connection to culture is a protective factor,[10,11] and clinicians must be committed to building trust through respecting cultural protocols and understanding historical factors that may impact people and their health and wellbeing.[12] It is also essential to recognise the social and other determinants that affect individuals and communities.[13]

General overview

There are several broad influences on the health of all young people, as detailed below.

- Young people are in a development continuum of early (age less than 13 years), middle (age 14–17 years) and late (age greater than 17 years) adolescence.[14]
- Developmentally, they are figuring out who they are (sense of identity) and where they belong (sense of connection). This involves learning to be independent and forming relationships with their peers.
- The rapid physical, cognitive and psychosocial growth that occurs in adolescence affects the way they think, act, feel and make decisions.[2]
- Adolescence is also a period of risk taking and experimentation, which is normal and necessary to develop resilience. However, the risk taking combined with inexperienced risk-assessment and decision-making skills also makes young people vulnerable to adverse health outcomes, including physical and mental injury and death.[14]
- The transition through adolescence into young adulthood is when habits and lifestyle behaviours are becoming established, including eating, physical activity, sleeping, substance use and sexual activity.[2] Hence, 'promoting healthy behaviours during adolescence, and taking steps to better protect young people from health risks are critical for the prevention of health problems in adulthood'.[15]
- Young people are sensitive to and affected by their environments, which can be beneficial or harmful to their health depending on context. Nurturing family support, positive peer networks and supportive educational or employment opportunities are associated with the development of good self-esteem and resilience.[14]
- Although social and economic factors can influence health in all age groups, the adverse health outcomes for young people are strongly influenced by family breakdown, physical abuse, sexual abuse, neglect and homelessness.[14]
- Most health problems in young people are considered to be due to psychosocial factors (ie engaging in high-risk behaviour, mental health issues and the external factors mentioned above).[14,16]

Therefore, the health needs of young people are distinct from those of children and adults, and their sexual and reproductive health needs are different from those of adults. These differences are important considerations in engaging with and supporting young people's health. A type of counselling technique that has been specifically identified as important in youth health is anticipatory guidance.[17–19] Anticipatory or health guidance is defined as proactive counselling that focuses on a young person's stage of development. It can be provided to young people and to their parents/carers to promote optimal health outcomes.

Aboriginal and Torres Strait Islander young people

There are several important considerations for Aboriginal and Torres Strait Islander youth in addition to those outlined above. From a demographic perspective, in the 2021 Census, 204,644 people aged 12–24 years identified as Aboriginal, Torres Strait Islander or both.[20] This comprises 5.1% of the total Australian population of young people in that age range, and 25% of the total Aboriginal and Torres Strait Islander population. In contrast, young people comprise 15.7% of the total Australian population.[20]

Most Aboriginal and Torres Strait Islander young people live in major cities (39%), inner-regional areas (24%) and outer regional areas (20%).[20] However, in very remote areas of Australia, the majority of young people are Aboriginal and Torres Strait Islander.[20]

In 2014–15, a majority of Aboriginal and Torres Strait Islander people aged 10–24 years recognised their traditional Country or traditional homelands, and most (69%) were involved in cultural activities.[21] The majority of Aboriginal and Torres Strait Islander people aged 15–24 years were happy all or most of the time.[21] Almost all rated their health at least as 'good', with only 10% rating their health as 'fair or poor'.[21]

Racism is now acknowledged as a health risk factor. (see Chapter 1: Health impacts of racism). A 2011 study by Priest et al found that 32% of Aboriginal and Torres Strait Islander youth had reported experiencing racism and were two- to three-fold more likely to have anxiety, depression, overall poor mental health and be at risk of suicide.[22]

Aboriginal and Torres Strait Islander youth are less likely to drink alcohol than non-Indigenous Australian youth.[21] However, other health risk factors, such as obesity, physical inactivity, smoking, lower educational attainment and imprisonment, are more prevalent among Aboriginal and Torres Strait Islander youth than non-Indigenous Australian youth.[21]

A synthesis of population data in 2017 found the burden of illness in Aboriginal and Torres Strait Islander young people is attributable to mental disorders such as anxiety and depression, substance use and injuries.[4] The same study found that the death rate for Aboriginal and Torres Strait Islander young people was more than twice that for non-Indigenous young Australians, with intentional self-harm and road traffic injuries the leading causes of death, accounting for approximately 60% of mortality.[4] It is more concerning that almost 80% of mortality is deemed potentially avoidable, with almost all being potentially preventable.[4]

Despite the relatively higher prevalence of preventable illness, 11% of Aboriginal and Torres Strait Islander youth did not seek healthcare, even when they needed to.[23] This was higher among youth living in non-remote areas, and reasons included deciding not to seek care, other priorities, lack of appointments, fear or embarrassment, not liking the service or health professionals, transport or distance and cost.[21] Other barriers that Aboriginal and Torres Strait Islander young people face include lower health literacy, culturally unresponsive systems and a consequent sense of 'shame'. The concept of 'shame' extends beyond embarrassment and includes feeling disrespected and that accepted personal and/or cultural norms have been breached, leading to a sense of self-doubt, inadequacy and disempowerment.[24]

Some topics, such as sex, are particularly sensitive among some Aboriginal and Torres Strait Islander groups. In addition, for many Aboriginal and Torres Strait Islander people there are gender-based cultural protocols that determine who can discuss what, often described as 'Men's Business' and 'Women's Business'. Primary care services that either are unaware of or do not accommodate these possibilities create additional barriers to accessing healthcare.[25] Therefore, providing youth-friendly primary care services that are sensitive to the administrative, financial, cultural and psychological hurdles experienced by Aboriginal and Torres Strait Islander youth is an integral step in delivering effective preventive interventions.[7,9,14,24,25]

Implementation tips

A youth-friendly environment

Youth-friendly practice environments play a significant role in creating safe spaces for young people to engage with health services and need to be designed with input from young people. Youth-specific recommendations include:[9,26]

- ease of access and location of the practice
- longer clinic hours and the ability to attend for 'walk-in' appointments
- bulkbilled or no out-of-pocket costs for appointments
- a welcoming space and waiting room setting comfortable for young people
- waiting room materials that are youth focused and give information on health, healthy living, bulk billing, Medicare cards and transport
- the provision of youth-specific flyers and printed or displayed information
- the availability of health information in different media formats (eg digital, printed, image/photo based, video)
- making sure the space and the way services are provided ensure appropriate confidentiality.

Cultural safety

Keeping our kids safe: Cultural safety and the national principles for child safe organisations provides guidance about organisational structures that improve cultural safety for Aboriginal young people.[12] Ensuring physical environments are reflective of Aboriginal and Torres Strait Islander cultures indicates cultural respect and safety and can signal to Aboriginal and Torres Strait Islander young people that they will be heard and respected. There are emerging examples demonstrating the effectiveness and efficiency of codesigned services for youth.[27] The following measures are therefore helpful:

- Displaying acknowledgement of Country and Traditional Owners, flag representation, and artwork – it is important to seek local Aboriginal and Torres Strait Islander community input into how they would like their culture represented
- Offering central and flexible focal points of service, coordinating referral pathways and incorporating cultural and community elements into care
- Creating partnerships with young people to influence service design
- Having spaces that are welcoming, especially of families and broader kinship networks
- Hosting community groups and events

Continuous quality improvement

- Review the structure and environment of the organisation and the attitudes, skills and behaviour of all staff to ensure the service is youth friendly and culturally safe for Aboriginal and Torres Strait Islander young people.
- Where possible, consider the co-design of services in partnership with Aboriginal and Torres Strait Islander young people and their communities.[17]

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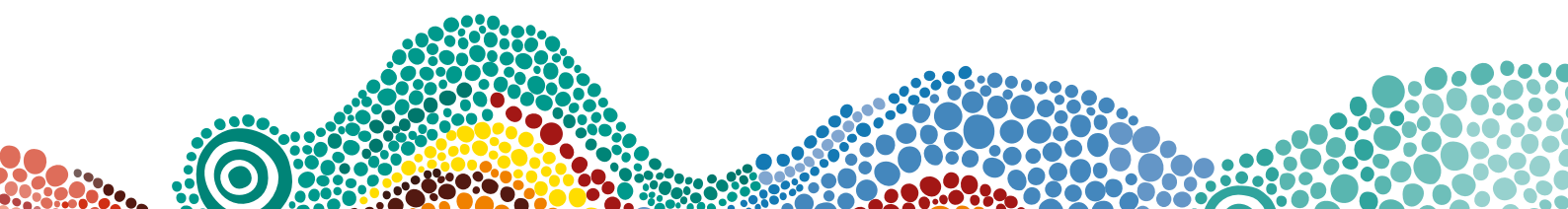

Chapter 7: The health of young people

Social emotional wellbeing in adolescence

Dr Annapurna Nori, Dr Talila Milroy

Key messages

- Cultural connection and family cohesion are strongly protective for the social and emotional wellbeing (SEWB) of young people.[1,2]
- Primary care providers should have a clear, culturally informed understanding of SEWB, and its relevance and role in the health of Aboriginal and Torres Strait Islander young people.
- Strengths-based approaches should be used in assessing SEWB.[2]
- Culturally specific and appropriate youth assessments are available and incorporate SEWB as central to the assessment.

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
Young people aged 12–24 years	Conduct a strengths-based social emotional wellbeing assessment to obtain a whole-person understanding of health and risk factors affecting wellbeing using a structured approach such as HEEADSSS (Home; Education and employment; Eating and exercise; Activities; Drugs and alcohol; Sexuality and gender; Suicide, depression and self-harm; and Safety) Refer to Useful resources	Opportunistically	Strong	National strategic framework and narrative reviews[1,3,4]
Preventive activity: Behavioural				
Primary care service providers	Establish rapport, trust, cultural safety and the terms of confidentiality when working with young people	In all healthcare interactions	Strong	Narrative review and position statement[4,5]
Preventive activity: Environmental				
Primary care service providers	Review the structure, environment and skills of the organisation to ensure the service is youth friendly and culturally safe for Aboriginal and Torres Strait Islander youth	Regularly as part of continuous quality improvement	Strong	National principles and literature review[6,7]

Useful resources

General

- The Royal Australasian College of Physicians: Position statement: *Confidential health care for adolescents and young adults (12–24 years)* racgp.link/4dbAjVE

Tools

- The Royal Children's Hospital Melbourne: HEEADSSS assessment tool and other general advice racgp.link/47wxNbi
- Nori A, Piovesan R, O'Connor J, et al. 'Y health – staying deadly': An Aboriginal youth focussed translational action research project. ANU, 2013 (culturally adapted HEEADSSS) racgp.link/4eowfTd
- The Westerman Aboriginal Symptom Checklist for Youth (WASC-Y): An Aboriginal and Torres Strait Islander-specific social and emotional wellbeing assessment tool (requires training and payment to access) racgp.link/4deYna9

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Chapter 7: The health of young people

Sexual and reproductive health

Dr Annapurna Nori, Dr Talila Milroy

Key messages

- Aboriginal and Torres Strait Islander young people can make better informed choices regarding their sexual and reproductive health when they feel respected and treated with dignity.
- Sexual health is not merely the absence of disease, but also involves respect, safety and freedom from discrimination and violence.[1]
- Sexual and reproductive health services for Aboriginal and Torres Strait Islander youth should be underpinned by an understanding of social and emotional wellbeing (SEWB) principles and strengths-based approaches.
- Screening, education (including anticipatory guidance) and behavioural interventions can be complemented by specific advice regarding contraception and intentional pregnancy.
- Sexually transmissible infections (STIs) are a major contributor of disease in Aboriginal and Torres Strait Islander young people, especially those in remote and regional Australia.[2,3]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Immunisation				
People aged 12–24 years	Check vaccination records, including the Australian Immunisation Register, to ensure all vaccinations are up to date and offer vaccination if required	Opportunistically	Strong	National resource and national guideline[4,5]
People aged 12–24 years	Provide education on vaccination safety, benefits and efficacy	Opportunistically	Good practice point	Single study[6]
Preventive activity: Screening				
People aged 12–24 years	Enquire whether menses have commenced and provide menstrual health counselling and education	Opportunistically	Good practice point	National resource[5]
People aged 12–24 years	Enquire whether sexually active as part of a broader assessment of health and wellbeing	Opportunistically	Good practice point	National resource[5]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
People aged 12–24 years	If sexually active, assess sexual risk taking and sexual safety	Opportunistically	Strong	National resource, Aboriginal and Torres Strait Islander single study and narrative review[5,7,8]
People aged 12–24 years	If sexually active, offer testing for STIs, including chlamydia, gonorrhoea, HIV and syphilis (and additional if indicated) Refer to Chapter 13: Sexually transmissible infections and blood-borne viruses	Opportunistically	Strong	National guidelines[9,10]
Preventive activity: Behavioural				
People aged 12–24 years	Provide anticipatory guidance around safer sex and contraception	Opportunistically	Good practice point	National resource and Aboriginal and Torres Strait Islander resource[5,11,12]
Preventive activity: Medication				
People aged 12–24 years	Discuss and offer contraception, especially long-acting reversible contraceptive as first-line method	Opportunistically	Strong	National resource and national guideline[5,13]
People aged 12–24 years	Provide education on when and where to seek emergency contraception	Opportunistically	Good practice point	National resources and national position statement[5,14]
Preventive activity: Environmental				
Primary healthcare service providers	Incorporate the knowledge and lived experience of local Aboriginal and Torres Strait Islander communities, especially Elders and youth, into management plans and program design and delivery	Ongoing	Strong	Aboriginal and Torres Strait Islander-specific single study[7]
Primary healthcare service providers	Promote and provide community-based and youth-led sexual health programs, including as outreach	Ongoing	Good practice point	Aboriginal and Torres Strait Islander-specific review[15]

Implementation tips

- Provide health information through multiple formats, such as digital (social media, online events), groups (workshops, community events) and newsletters (paper-based and digital).
- Ensure all staff have cultural safety and youth-friendly training appropriate to their roles.
- Ensure clinic resources, waiting room materials and displayed information on sexual health are culturally safe, youth friendly and up to date.

Useful resources

- Deadly Choices program racgp.link/4e3xgjS
- *Yarning quiet ways* – a Western Australian Government Department of Health initiative to assist discussions on strong, safe and healthy relationships racgp.link/4e3tOWd
- Adolescent health: enhancing the skills of general practitioners in caring for young people from culturally diverse backgrounds, GP resource racgp.link/3B8AqUT

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Chapter 7: The health of young people

Substance use in adolescence

Dr Marguerite Tracy

Key messages

- Adolescence is a time of profound neurodevelopment and social transition. Experimentation and risk taking are common during this phase of development, including substance use.[1]
- Substance use, especially use at an early age, can have serious detrimental impacts on development and life trajectory.
- 'Substances' includes legal substances such as alcohol and nicotine (although the underage use of these is not legal) and illicit substances, such as cannabis, amphetamines, opioids, hallucinogens and sedatives.
- GPs and primary care teams are well placed to provide health promotion, screening and early intervention to prevent harms from substance use in young people.
- Providing accurate information on substances can reduce the risk of harms.[2,3]
- Protective factors that reduce the risks of substance use in young people, including Aboriginal and Torres Strait Islander young people, are those associated with strong social support and positive social and emotional wellbeing (SEWB), including cultural connection, good family relationships, having supportive friends, positive role models and school attendance/employment.[4,5]
- Harm and trauma due to adverse childhood experiences (ACEs), intergenerational trauma and increased social disadvantage and racism faced by Aboriginal and Torres Strait Islander young people are linked to increased risk-taking behaviours, including substance use.[5]
- Supporting families, providing trauma-informed healing-focused care and supporting the overall health of young people, including their mental health, are all examples of primary prevention possible in general practice.[6–8]
- Family members or support people should be allowed and encouraged to be present during healthcare interactions, if appropriate.[9]
- A strengths-based approach to engaging and caring for Aboriginal and Torres Strait Islander young people in preventing illicit and harmful substance use, and in supporting those who use, is a strong theme across the available literature.

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Immunisation				
All young people	Hepatitis B immunisation (and all immunisations)	As per the National Immunisation Program (NIP) Schedule	Strong	NIP Schedule[10]
Young people who inject drugs	Hepatitis A immunisation	Opportunistically and as part of the NIP Schedule in Queensland, Northern Territory, South Australia and Western Australia	Strong	National guideline[11] NIP Schedule[10]
Preventive activity: Screening				
Young people aged 12–17 years	Explore risk factors for use, as well as current use of substances, using a validated screening tool, such as HEEADSSS (Home; Education and employment; Eating and exercise; Activities; Drugs and alcohol; Sexuality and gender; Suicide, depression and self-harm; and Safety). See Useful resources	Opportunistically	Good practice point	National and Aboriginal and Torres Strait Islander-specific guidelines[12–14]
Young people aged 18–24 years	Ask about alcohol and other substance use using a validated screening tool, such as IRIS (Indigenous Risk Impact Screen) or, for alcohol only, AUDIT-C (Alcohol Use Disorders Identification Test – Consumption)	Opportunistically	Strong	National and Aboriginal and Torres Strait Islander-specific guidelines[12–14]
Young people who inject drugs	Screen for blood-borne viruses (hepatitis B, hepatitis C, HIV)	Opportunistically, then 3–12 monthly depending on risk assessment	Strong	National guideline[15]
Preventive activity: Behavioural				
Young people aged 12–24 years with identified risk factors or who are at harm from their substance use	To assess for risks and harms, as well as the need for supports, further assessment and/or treatment, assess substance use using validated tools such as: • CRAFFT (Car, Relax, Alone, Forget, Friends, Trouble) screening tool (for ages ≤21 years) • IRIS tool (for ages ≥18 years)	As clinically indicated	Good practice point	National and Aboriginal and Torres Strait Islander-specific guidelines[12–14]
Young people with multiple risk factors for drug use	Encourage prevention programs developed with/by the community, which include substance use education, skills development or increased cultural knowledge	Opportunistically	Good practice point	Systematic review[2]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural (continued)				
Young people who are using illicit drugs	Provide brief interventions (eg in conjunction with the administration of one of the screening questionnaires listed on page 171)	As clinically indicated	Good practice point	Aboriginal and Torres Strait Islander-specific guidelines[14,16]
Young people who are using illicit drugs	Offer dental and general preventive medical care	Opportunistically	Good practice point	National report[17] Cohort study[18]
Families of young people who are using illicit drugs	Consider referral where appropriate to parent education programs and family intervention therapy to encourage healthy family development and a reduction in parent–adolescent conflict	Opportunistically	Good practice point	Single study[7]
Young people who are injecting drugs	Refer to needle and syringe exchange programs and supervised injecting centres where available	Opportunistically	Strong	Narrative review[19]
Preventive activity: Environmental				
Health services and practices	Promote school attendance and completion	Opportunistically	Good practice point	Systematic review[2]
Health services and practices	Promote access to community and school-based drug education programs	Opportunistically	Good practice point	Systematic review[2]
Health services and practices	Promote youth-friendly, culturally aware primary healthcare services	Opportunistically	Good practice point	Jurisdictional resource[6]
Health services and practices	Support community-driven illicit drug use prevention programs	Opportunistically	Good practice point	Systematic review[2]
Health services and practices	Advocate for needle and syringe programs and supervised injecting centres	Opportunistically	Strong	Studies evaluating Australian safe-injecting facilities[19–21]

Useful resources

Clinical guidelines

- NADA practice resource: *Alcohol & other drugs treatment guidelines for working with Aboriginal & Torres Strait Islander people – in a non-Aboriginal setting* racgp.link/47sCmUg
- Journal article: Tracy M, Freeburn B, Lee K, Woods J, Conigrave K. Review of alcohol and drug treatment for Aboriginal and Torres Strait Islander peoples. *Journal of the Australian Indigenous HealthInfoNet* 2023;4(1): Article 1. doi: 10.14221/aihjournal.v4n1.1.
- Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM) testing portal for blood-borne viruses racgp.link/3XpDiUR
- Queensland Health. *A practice guide to Adolescent and Young Adult* (AYA) *Care*. racgp.link/3z9ARha

Assessment tools

- Headspace clinical toolkit (includes CRAFFT, ASSIST [Alcohol, Smoking and Substance Involvement Screening Test] and AUDIT tools/links) racgp.link/47vPece
- The Royal Children's Hospital Melbourne: HEEADSSS assessment tool available as part of Engaging with and assessing the adolescent patient racgp.link/3zn3FCM
- IRIS tool and brief intervention racgp.link/3TsI9Vi
- ASSIST, available in English and Pitjantjatjara racgp.link/4esRnYf
- Substances & Choices Scale and Brief Intervention (SACS-ABC) (New Zealand): racgp.link/3TxmHx9

Professional development

- NSW Health: HEEADSSS assessment video learning resource for health professionals to work effectively with young people racgp.link/4d7vm0k
- How to ask about alcohol: The Grog Survey app training webinar racgp.link/4e2iLg7

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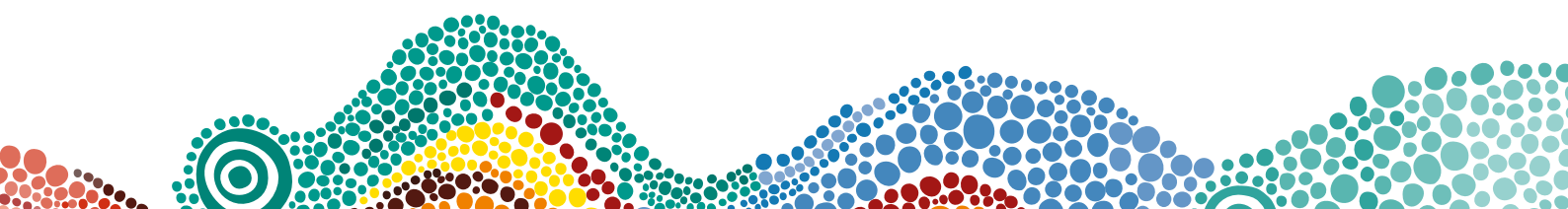

Chapter 8: The health of older people

Introduction

Dr Sylvia Nicholls

Key messages

- Older people and Elders contribute significantly to the wellbeing of their families and communities through strengthening of identity, cultural knowledge and social connectedness.[1]
- Older peoples' own priorities and goals should guide preventive health activities to support healthy ageing, consistent with person-centred care.[2,3]
- Healthy ageing is supported by healthy living across the life course.[4]
- Strengthening protective factors and addressing risk factors can prevent or delay the onset and progression of many chronic conditions.[4]
- Aboriginal and Torres Strait Islander people may experience conditions associated with ageing at a younger age due to chronic disease and health inequities throughout the lifetime.[5,6]

Healthy ageing is supported by healthy living across the life course, and preventive health activities in older age (age 50 years and over) build on those of childhood and early adulthood.[4] This is central to the vision of the *National Aboriginal and Torres Strait Islander health plan 2013–2023*, that 'Aboriginal and Torres Strait Islander people enjoy long, healthy lives that are centred in culture, with access to services that are prevention-focused, culturally safe and responsive, equitable and free of racism'.[7] Healthy ageing for Aboriginal and Torres Strait Islander people is best viewed through a holistic lens where the health of one individual is linked to the health of the whole community, and healthy ageing is seen as part of the cycle of life.[7]

Aboriginal and Torres Strait Islander communities tend to be younger than the wider population, reflecting both the higher birth rates and inequalities in life expectancy. However, with more Aboriginal and Torres Strait people living to an older age, the age structure is expected to rise, reflecting the wider trend of an ageing population in Australia.[8] The number of Aboriginal and Torres Strait Islander people aged 45 years and above in 2016 was recorded as 167,259.[8] This is projected to grow to 448,785 people over the next 30 years.[8] This older (defined as age 45 years and above) adult cohort comprised 21% of the Aboriginal and Torres Strait Islander population in 2016, with projected growth to 26% in 2046.[8]

For older Aboriginal and Torres Strait Islander adults, healthy ageing is characterised by engagement in community and culture including language, art, ceremonies and caring for Country.[9] Elders' own perspectives on ageing have been explored by researchers with the aim of providing culturally appropriate care.[9–11] Aboriginal Elders saw healthy ageing 'as more than just getting older, rather it was viewed as the ability to continue in key roles as cultural leaders and keepers of traditional knowledge'.[9] Ongoing engagement with cultural practices, including preparation of traditional foods and passing on cultural knowledge, supports healthy ageing. In a study examining cultural safety in residential aged care, visiting the bush to collect plants was important: 'go out for bush medicine, make it and take it to aged care and give it to the old people'.[10] Cultural practices like this are consistently identified as fundamental to healthy ageing for indigenous peoples globally.[12–14]

Elders are older people (age being a relative concept) who are respected for their knowledge and wisdom and who enact cultural roles and responsibilities within the community.[12,13,15] Elders may be seen as role models, mentors and decision makers, and may be approached by family and community members in times of need.[15,16] Cultural obligations may also extend across other roles (eg as traditional owners, senior custodians and/or family members). Older people and Elders contribute significantly to the wellbeing of their families and communities by strengthening identity, cultural knowledge and social connectedness.[2,12,14,15] Gibson et al describe the 'intersecting roles and responsibilities' for older people in a study of 16 Elders on Wiradjuri country.[2] The authors suggested that Eldership may be viewed in an occupational sense, encompassing leadership, teaching and learning, advocacy and activism.[2]

Older adults often have caregiver roles within families, including the care of children and young people as part of kinship care practices. Older adults are central to healing activities within families and communities, including supporting people through bereavement, loss and trauma.[2,15] By sharing language, knowledge and traditional stories with younger generations, cultural practices that were disrupted and suppressed through colonisation are revitalised. In a research project based in Tasmania, Elders conveyed the desire to 'create a positive future' and 'create something good' for the youth in the community.[15] Caring for youth was also a major theme identified by Elders of other nations (Githabul/Bundjalung and Ngarabal).[1]

These roles are maintained in the context of considerable adversity, and best practice preventive care for older adults is trauma informed. Older Aboriginal and Torres Strait Islander people who are alive now were born into a segregated society and subject to discriminatory government policies. Separation from family and ancestral lands, including living on missions and reserves, suppression of cultural practices and experiences of racism, are in the living memory of many older adults today. With unequal access to education, employment and housing opportunities, many Aboriginal and Torres Strait Islander families experience intergenerational economic hardship. Older Aboriginal and Torres Strait Islander people have likely experienced racism and discrimination, including from health providers, which can be an ongoing barrier to care.[13]

The Stolen Generations refers to Aboriginal and Torres Strait Islander people who, as children, were forcibly removed from their families in the 20th century as part of protectionist and assimilationist government policies.[17] The National Aboriginal and Torres Strait Islander Health Survey 2018–19 suggested that there were around 27,200 people aged 50 years and over who were Stolen Generation survivors, with an estimated 142,200 descendants.[18] This means that one in five currently living Aboriginal and Torres Strait Islander people aged 50 years and over were removed from their families.[18] This has wide-reaching implications for the physical and social and emotional wellbeing (SEWB) of individuals and their families. As well as the trauma and grief of separation, survivors described maltreatment and abuse, malnutrition and harsh living conditions.[18] Compared with a reference group of other Aboriginal and Torres Strait Islander people aged 50 years and over, Stolen Generation survivors were more likely to experience further health and socioeconomic disadvantage.[18] In 2018–19, of people of the Stolen Generations aged 50 years and over, 71% had government payments as the main source of income and 43% had days without money for basic living expenses.[18] The AIHW report identifies that, compared with an Aboriginal and Torres Strait Islander reference group, Stolen Generation survivors were found to be 1.7-fold more likely to be a current smoker, 1.4-fold more likely to have a severe or profound disability and 1.4-fold more likely to have poor mental health.[18]

Multimorbidity increases as people age, and multimorbidity is higher for Aboriginal and Torres Strait Islander people in all age groups.[19,20] For older Aboriginal and Torres Strait Islander people, cardiovascular disease, cancer and neurological disorders, including dementia, have emerged as leading contributors to the burden of disease.[21] Respiratory diseases affect all age groups, with 3–13% of the total morbidity burden attributed to these conditions.[21] This is similar to musculoskeletal conditions, which affect all age groups from the age of 5 years and account for 4–12% of the total burden of disease.[21] The impact of chronic health conditions is a concern to older Aboriginal and Torres Strait Islander people, particularly when associated with a loss of independence, inability to work or social isolation.[13,14] Some people felt they had become a burden to family during periods of illness.[9]

Aboriginal and Torres Strait Islander people may experience conditions associated with ageing at a younger age due to chronic disease and health inequities throughout the lifetime. Therefore, Aboriginal and Torres Strait Islander people can access My Aged Care services from age 50 years, and screening for geriatric syndromes should occur at younger ages, particularly the risk of falls and cognitive impairment.[5,6]

There will be a significant difference between a person's health needs at age 50 years compared with 70 years, and clinical care should be patient centred.[22] Cognitive impairment and dementia are not inevitable or expected parts of healthy ageing.[5] Maintaining a healthy mind, both in terms of cognition and mental wellbeing, allows for greater independence and safety in older age, as well as cultural engagement.[5] Cultural determinants of health, as well as social and emotional health are captured in the Good Spirit, Good Life tool. This holistic quality-of-life assessment tool has been developed and validated for use with and by Aboriginal people in urban and regional areas.[23]

There are multiple opportunities for preventive health for older Aboriginal and Torres Strait Islander people. In 2018, 49% of the burden of disease experienced by Aboriginal and Torres Strait Islander people was potentially preventable, particularly disease due to tobacco use, alcohol use, overweight and obesity, illicit drug use and nutrition.[21] Data suggest that fewer Aboriginal and Torres Strait Islander people participate in cancer screening activities. For example, in 2017, 21% of Aboriginal and Torres Strait Islander people completed the National Bowel Cancer Screening Program, compared with 43% of non-Indigenous Australians.[19]

A similar disparity was seen in the vaccination of adults against pneumococcal disease: in 2018–19, 32% of Aboriginal and Torres Strait Islander people aged 50 years and over and 46% of those aged 65 years and over were vaccinated for pneumococcal disease, compared with 54% of the wider population aged 65 years and over.[19]

In older age, key primary prevention activities include:

- promoting healthy eating, physical activity and social and cultural connection
- vaccinations for influenza, pneumococcal disease, herpes zoster virus (shingles) and COVID-19 to reduce the risk of communicable diseases
- encouraging not ever smoking or stopping smoking
- screening for bowel, breast and cervical cancer
- cardiovascular risk assessment.

Preventive care for older people can be opportunistic and integrated into other primary care activities. Annual health checks provide a structured approach to asking questions and talking (yarning) about common health issues associated with ageing, such as:

- SEWB and mental health
- musculoskeletal health (including bone density) and falls
- cognitive impairment and dementia
- bladder and bowel health, including incontinence, and sexual health
- adverse effects from medication
- maintaining independence and care needs.

It is important that cultural safety is recognised by care providers, so that autonomy and self-determination is prioritised and preventive activities are not forced upon individuals and communities.[9,12,14] Referral to culturally appropriate services is an important way to support engagement in healthcare. When considering the evidence base for preventive healthcare, it is mostly generated from a Western, biomedical perspective. Respectful communication is key to building trusting therapeutic relationships and to allow for patient- and family-centred care. In this way, clinicians may seek to recognise and respect how Aboriginal and Torres Strait Islander ways of thinking, being and doing contribute to health and wellbeing for Elders and older Aboriginal and Torres Strait Islander people.

Useful resources

- National Immunisation Program racgp.link/4glBpRP
- Aged care services racgp.link/4ehrU4a
- Advance care planning racgp.link/3XLhjsR

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Chapter 8: The health of older people

Brain health, cognition and dementia

Dr Sylvia Nicholls

Key messages

- Aboriginal and Torres Strait Islander people experience higher rates of cognitive impairment and dementia than non-Indigenous Australians, with onset at an earlier age.[1–3]
- A proactive approach should be taken to strengthen protective factors and reduce vulnerabilities to the development of cognitive impairment.[4]
- Cognitive impairment and dementia are not an expected or inevitable part of ageing.[4,5]
- A whole-of-life approach should be undertaken to support early neurodevelopment and educational attainment, and to prevent brain injuries/insults throughout the lifetime.[6]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All people aged 50 years and over	Assess risk factors and ask about memory and thinking; for example, 'Do you have any worries about your memory or thinking?'	Opportunistically	Strong	Aboriginal and Torres Strait Islander-specific national guidelines[4,7]
People suspected of or experiencing cognitive changes	Conduct cognitive assessment with a validated tool, such as the cognitive assessment domain of the Kimberley Indigenous Cognitive Assessment (KICA-Cog), General Practitioner Assessment of Cognition (GPCOG) and Standardised Mini-Mental State Examination (SMMSE) History taking Physical examination Computed tomography (CT) scan brain and baseline bloods[A] Magnetic resonance imaging (MRI) brain could be performed if available[B]	Annually	Strong	National guidelines[4,7]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural				
All people (for primary prevention) and people with cognitive impairment (for secondary prevention)	Promote protective factors: healthy diet, physical activity, healthy weight, sleep and social/cultural and mental engagement Promote smoking cessation and safe alcohol consumption Reduce cardiovascular risk factors: obesity, hypertension, cholesterol, heart disease, diabetes Monitor mood and be alert for depression Ask about, assess and treat hearing impairment	Opportunistically	Strong	National and international guidelines[4–7]
Preventive activity: Medication				
All people aged 50 years and over	Review medication regularly including ceasing/minimising anticholinergic medications	Opportunistically	Good practice point	Best practice guide[4]

[A]CT scan brain, full blood count, urea and electrolytes, liver function tests, thyroid function tests and vitamin B12/folate[8] is recommended. Conduct syphilis and HIV serology if risk factors are present.

[B]MRI brain is not associated with a Medicare rebate in primary care to investigate cognitive impairment.

Implementation tips

- People with multiple medications, complex dosage regimes and/or cognitive impairment may benefit from a dose administration aid.
- Aboriginal and Torres Strait Islander people are eligible for services through My Aged Care from age 50 years.

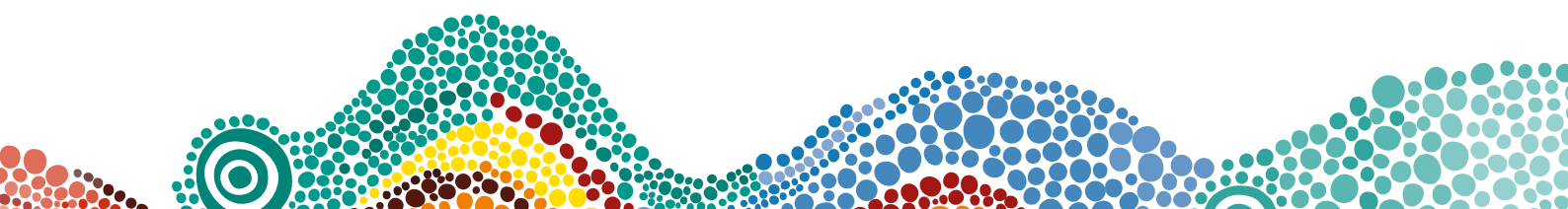
Useful resources

Clinical guidelines

- Best practice guide to cognitive impairment and dementia care for Aboriginal and Torres Strait Islander people attending primary care:
  - Full guide racgp.link/4e8aZkQ
  - Clinical summary racgp.link/4d3VCZq
- National Health and Medical Research Council: *Clinical practice guidelines and principles of care for people with dementia* racgp.link/3BhXOz5.

Assessment tools

- Kimberley Indigenous Cognitive Assessment (KICA) racgp.link/4d3VHfG
- GPCOG online screening tool for cognitive impairment racgp.link/3MO5KdX
- Rowland Universal Dementia Assessment Scale (RUDAS) racgp.link/3zmP3TQ
- SMMSE racgp.link/3MLgcmH
- Good Spirit, Good Life quality of life tool racgp.link/3zp0R8f



Other resources

- Dementia Australia resources for Aboriginal and Torres Strait Islander communities racgp.link/4enSys8
- Dementia Australia resource for home environment racgp.link/3MP24cc
- Caring for Spirit (training modules, education for community members and health professionals) racgp.link/3MMy7sX
- Let's CHAT Dementia resources racgp.link/3zulIH5
- Indigenous dose administration aids racgp.link/3zy1snY
- Communication cards racgp.link/3ZmrCVr

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Chapter 8: The health of older people

Osteoporosis

Dr Sylvia Nicholls

Key messages

- Healthy, strong bones are important for older Aboriginal and Torres Strait Islander people to reduce the risk of fractures, which can result in long-term disability and increased risk of mortality.
- Bone is a dynamic tissue, under hormonal regulation and responsive to weight-bearing physical activity.[1] Maintaining a nutritious diet, healthy weight, safe sun exposure, not smoking cigarettes and limiting alcohol consumption throughout the lifetime will benefit bone health.[2]
- There are medical conditions and medications that can negatively affect bone health and increase the risks of osteoporosis and fractures; examples of medical conditions include diabetes and chronic kidney disease.[2,3]
- Osteoporosis is a chronic disease that is underdiagnosed and undertreated in Australia and internationally, which means opportunities for fracture prevention are being missed.[3,4]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
Postmenopausal women and men aged over 50 years	Assess risk factors for osteoporosis (see Box 1)	Annually	Strong	National guideline[2]
People at moderate and high risk of osteoporosis	Initiate further assessment based on risk factor profile, including DEXA scan, and fracture risk calculation (see Useful resources)	As clinically indicated	Strong	National guideline[2]
Preventive activity: Behavioural				
All postmenopausal women and men aged over 50 years	Provide advice on: • maintaining healthy weight • smoking cessation • avoiding excessive alcohol consumption • maintaining dietary calcium • adequate and safe exposure to sunlight and adequate vitamin D levels	Opportunistically	Strong	National guideline[2] Position statement[1]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural (continued)				
All postmenopausal women and men aged over 50 years without osteoporosis	Recommend high-intensity weight-bearing and progressive resistance training, impact loading and balance training	Opportunistically	Strong	National guideline[2] Position statement[1]
All people with osteoporosis	Recommend low-impact weight-bearing and progressive resistance training, impact loading and balance training	As clinically indicated	Strong	National guideline[2] Position statement[1]
Women and men diagnosed with osteoporosis on antiresorptive medication, particularly people who are in residential care	Maintain dietary calcium and adequate vitamin D levels and supplement if required (see Useful resources)	As clinically indicated	Strong	National guideline[2] Position statement[5]
Preventive activity: Medication				
Women and men with osteoporosis: • **after minimal trauma fracture** • **aged 70 years with a dual-energy X-ray absorptiometry (DEXA) score minus 2.5 or less** • **on long-term glucocorticoids**	Commence antiresorptive medication (bisphosphonates, denosumab, hormonal treatments) Check eligibility for Pharmaceutical Benefits Scheme (PBS)-funded treatment Denosumab should be given regularly to avoid bone density loss on discontinuation Refer patients who have treatment failure for specialist review	On diagnosis and should continue long term	Strong	National guideline[2] Position statement[3]
Preventive activity: Environment				
Health professionals	Increase awareness of air pollution as a risk factor for osteoporosis	Opportunistically	Good practice point	Systematic review[6]

Useful resources

Clinical guidelines

- The Royal Australian College of General Practitioners (RACGP): *Osteoporosis prevention, diagnosis and management in postmenopausal women and men over 50 years of age*, second edition racgp.link/4empnFM
- RACGP: Osteoporosis risk assessment, diagnosis and management flow chart racgp.link/3Txrgrr
- Healthy Bones Australia: Position statement of the management of osteoporosis racgp.link/3zikb79

Tools

- University of Sheffield: Fracture Risk Assessment Tool (FRAX®) for the Australian setting, recommended in Australian guidelines racgp.link/3XKuHgE
- Garvan Institute: Bone fracture risk calculator racgp.link/3TwpOWi

General information

- International Osteoporosis Foundation: Prevention racgp.link/3XHDMH7
- Healthy Bones Australia: Exercise guidelines for preventing and treating osteoporosis racgp.link/3XMq8CL
- Healthy Bones Australia: Sun exposure recommendations racgp.link/47BMaLO

Box 1. Risk factors for osteoporosis in postmenopausal women and men aged >50 years

Non-modifiable risk factors

- History of minimal trauma fracture
- Parental history of hip fracture
- Height loss of more than 3 cm and/or back pain suggesting vertebral fracture
- Women have twice the risk at any given age compared with men (except men who have experienced a fracture)
- Increasing age
- History of falls

Modifiable risk factors

- Low bone mineral density
- Low body weight or unintentional weight loss
- Low muscle mass and strength
- Low physical activity or prolonged immobility
- Poor balance
- Smoking
- High alcohol intake
- Low vitamin D and calcium levels
- Co-existing medical conditions that increase bone loss, including diabetes, kidney, liver and thyroid disease, other hormonal and gut conditions[A]
- Medications including prolonged glucocorticoids and some cancer treatments[A]

Adapted from *Osteoporosis prevention, diagnosis and management in postmenopausal women and men over 50 years of age.*[2]

[A]See *Osteoporosis prevention, diagnosis and management postmenopausal women and men over 50 years of age* for more details.

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Chapter 8: The health of older people

Mobility, balance and coordination: Falls prevention

Dr Sylvia Nicholls

Key messages

- Falls are the most common mechanism of injury for older adults, and Aboriginal and Torres Strait Islander people experience an increased rate (1.2-fold greater) of hospitalisation for falls than non-Indigenous Australians.[1]
- Focusing on falls prevention can reduce the risk of minimal trauma (fragility) fractures.
- Minimal trauma fractures are indicative of osteoporosis and can have long-term consequences.[1,2]
- There are many effective interventions to reduce falls risk, including exercise (strengthening and balance), deprescribing harmful medications and reducing environmental hazards.[2–4]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All people aged 50 years and over	Ask about a history of falls, unsteadiness and/or concerns about falling (see Box 2)	Annually and opportunistically	Strong	National guideline[2]
People at higher risk of falls (see Box 1)	Conduct a falls risk assessment (see Box 3) High-risk older adults may be offered multidisciplinary assessment through referral to a geriatrician or falls clinic	Opportunistically	Strong	National and international guidelines[4,5]
All people aged 50 years and over	Ask about alcohol and any other substances that affect balance and alertness using a validated screening tool	Opportunistically	Good practice point	National and international guidelines[4,6]
Preventive activity: Behavioural				
All people aged 50 years and over	Encourage physical activity with a focus on balance and muscle strengthening	Opportunistically	Strong	Position statement[3]
All people aged 50 years and over	Provide information on how to reduce risk of harms from alcohol	Opportunistically	Good practice point	National and international guidelines[4,6]
All adults who have experienced a fall, or if frail	Offer referral to an exercise physiologist or physiotherapist	As clinically indicated	Good practice point	National and international guidelines[3,7,8]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medication				
All people aged 50 years and over	Review medication regularly Stop unnecessary medication, particularly psychoactive and sedating medications	Annually, as part of a falls risk assessment	Good practice point	Aboriginal and Torres Strait Islander-specific guideline[9]
All people aged 50 years and over with a history of falls and/or increasing frailty	Review medications and determine what is no longer needed and/or is causing harm Stop unnecessary medication, particularly psychoactive and sedating medications Refer for a home medications review (Medicare Benefit Schedule [MBS] Items 900/903)	6–12 monthly and as clinically indicated	Strong	Australian and international guidelines[2,5,6]
All people aged 50 years and over	Consider vitamin D supplementation if deficient	As clinically indicated	Good practice point	Australian and international guidelines[2,6]
Preventive activity: Environment				
All people aged 50 years and over with a history of falls or increasing frailty	Refer to occupational therapist for home assessment and environmental modifications	As clinically indicated	Strong	Australian and international guidelines[2,5]

Box 1. Factors associated with a higher risk of falls

- Previous fall, especially with injury
- Impaired mobility or frailty
- Neurological condition (stroke, head injury)
- Cognitive impairment
- Excessive alcohol use
- Polypharmacy

Box 2. Questions about falls[6]

1. Have you fallen in the past year?
2. Do you feel unsteady when standing or walking?
3. Do you have worries about falling?

Box 3. Falls risk assessment

Consider using the Falls Risk for Older People tool (see Useful resources)

- Mobility: gait, balance and functional mobility
- Cardiovascular assessment: cardiac history, clinical examination, lying and standing blood pressure and electrocardiogram
- Cognitive impairment, including delirium
- Dizziness or vertigo
- Continence
- Feet and footwear
- Vision and hearing
- How pain may be affecting mobility
- Mental health and wellbeing, particularly depressive symptoms
- Medication review using a validated assessment tool

Useful resources

Clinical guidelines

- Australian Commission on Safety and Quality in Health Care: *Preventing falls and harm from falls in older people* racgp.link/3Xlx9ZK
- The Royal Australian College of General Practitioners (RACGP): Exercises for falls prevention, in *Handbook of non-drug interventions (HANDI)* racgp.link/3ZvA30D

Tools

- Falls risk for older people – Community setting (FROP-Com) guidelines racgp.link/3XN14LC
- Kimberley Indigenous Cognitive Assessment (KICA) racgp.link/3z9CvPS

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Chapter 9: Eye health and vision

Visual acuity

Dr Natalie Williamson

Key messages

- Aboriginal and Torres Strait Islander children have better vision and less visual impairment than non-Indigenous Australian children. However, Aboriginal and Torres Strait Islander adults aged >40 years are three-fold more likely to have visual impairment than non-Indigenous people in Australia.[1,2]
- Ask all people about vision and complete assessment of visual acuity in those with symptoms and/or who request it.
- There has been a significant improvement in funding and the availability of eye health services, and it is imperative that clinicians are aware of the services available in their region to optimise patient care.[3]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
Infants	Conduct a general eye examination: • red reflex (reflection from the retina) • corneal light reflex (reflection from the cornea) • cover test (covering and uncovering each eye) Refer to an ophthalmologist if the red reflex is absent or any other abnormality is found	Before 3 months of age and again between 3 and 6 months of age	Good practice point	National guidelines[4–6]
Children aged 3–5 years	Assess visual acuity using Lea and Tumbling E charts depending on age and maturity of child Refer if visual acuity is less than 6/12 in either eye	As part of a routine health assessment at or before school entry	Strong	National and international guidelines[4–7]
All people	Ask about vision Test visual acuity if any problems are identified Include testing for near visual acuity from age 40 years onwards	Opportunistically	Good practice point	National guidelines[8–10]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
People with diabetes	Undertake visual acuity and retinal assessment by a trained assessor This includes dilated fundus examination and/or the use of retinal photography by trained primary healthcare staff combined with external review by an ophthalmologist	At diagnosis then annually	Strong	National guideline[11]
Pregnant women with diabetes	Conduct a dilated fundus examination and counsel clients about the risks of diabetic retinopathy (DR)	Preconception	Strong	National and international guidelines[12–15]
Pregnant women with diabetes	Conduct an eye examination by dilated fundus examination or retinal digital imaging	First trimester	Strong	National guidelines[13,14,16,17]
Pregnant women with diabetes	The need for further retinal examinations should be guided by results of earlier examinations	Second and third trimesters	Conditional	National guidelines[13,14,16–18]
Pregnant women with diabetes	Provide ongoing ophthalmic follow-up in the post-partum period with retinal digital photography or dilated fundus examination	6–12 months postpartum	Strong	National and international guidelines[12–15]
Preventive activity: Behavioural				
Current smokers	Advise smoking cessation to reduce the risk of developing cataracts (see Chapter 2: Healthy living and health risks, Smoking)	Opportunistic	Conditional	Narrative review[19] Single study[20]
All people	Recommend reduced ocular exposure to ultraviolet B light to reduce the risk of cataract (ie wearing a hat and sunglasses when outdoors)	Opportunistic	Conditional	Narrative review[21] Single studies[22,23] Systematic review[24]
All people	Recommend a balanced diet high in fruit and vegetables to help promote good eye health and reduce the risk of developing diabetes and age-related macular degeneration	Opportunistic	Conditional	Position statement[25] Narrative study[26]

Implementation tips

- Include eye health in chronic disease management plans and consider in team care arrangements.
- Establish recall and reminder systems for annual eye reviews in high-risk patients.
- Provide regular staff training and updates in the assessment of eye health, including visual acuity and retinal photography.
- Consider the location of the Snellen chart within the clinic space. Ensure good natural light or illumination (without reflection) on the Snellen chart to assess visual acuity.
- When assessing visual acuity, it is best to use an occluder to cover the eye that is not being tested; where an occluder is not available, use the patient's cupped hand to cover the eye.
- Vision charts are standardised for size and contrast; do not photocopy or make your own charts.

Useful resources

Clinical guidelines

- National Health and Medical Research Council: *Guidelines for the management of diabetic retinopathy* racgp.link/3MOugvF

General

- Australian Indigenous Health*Info*Net: Eye health resources racgp.link/3Xuv8dL
- Australian Institute of Health and Welfare: *Indigenous eye health measures 2021* racgp.link/4eq2sJJ
- Centre for Eye Research Australia, Melbourne School of Population and Global Health, The University of Melbourne: *National Indigenous Eye Health Survey 2009: Minum barreng (tracking eyes) – full report* racgp.link/3XsalaL
- Department of Health and Aged Care: Medicare Benefits Schedule (MBS) – Item 715, Aboriginal and Torres Strait Islander peoples health assessment racgp.link/3MO6XC1
- Department of Health and Aged Care: MBS – Item 12325, Aboriginal and Torres Strait Islander peoples assessment of visual acuity and bilateral retinal photography with a non-mydriatic retinal camera racgp.link/3MLawsK
- Indigenous Eye Health Unit, the University of Melbourne – Roadmap, Reports, Projects racgp.link/3ZqXvfm
- Vision 2020 Australia: Our work racgp.link/3B4fPRF

Other resources for health professionals

- International Diabetes Federation and The Fred Hollows Foundation: *Diabetes eye health: A guide for health professionals* racgp.link/47wB4Y8
- Lions Outback Vision: Information for health workers supporting diabetic retinopathy screening, research papers, reports, and useful links. racgp.link/3ZvAtUL
- Vision 2020 Australia: *National framework for vision screening for 3.5–5-year-olds* racgp.link/3Tx51BA

Tools

- Peek Vision: Peek Acuity app for testing visual acuity racgp.link/3ZmsOIp

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Chapter 9: Eye health and vision

Trachoma and trichiasis

Dr Mariana Galrao

Key messages

- Trachoma is an eye infection that can lead to trichiasis and blinding corneal opacification.
- Australia is the only high-income country with endemic trachoma.[1]
- Trachoma occurs primarily in remote and very remote Aboriginal communities in the Northern Territory, South Australia and Western Australia, being identified in 92 communities in 2021.[2,3]
- Environmental improvements, including access to functional and culturally appropriate housing, wel-maintained health hardware, including washing facilities, and strong health promotion activities are key to eliminating trachoma.[1]
- Trachoma screening in identified communities is coordinated by state/territory health departments in collaboration with other stakeholders (eg Aboriginal Community Controlled Health Organisations, education departments, local health services) depending on the jurisdiction.
- Clinicians working in remote areas are encouraged to contact their regional public health unit to ascertain whether trachoma is an identified public health concern in the communities where they work. A map is available within the Australian trachoma surveillance report with the latest prevalence figures per health region in each state and territory.[4]
- Clinicians play an important role in advocating for their patients' access to functional housing and health infrastructure, including making referrals to local environmental health services.
- Clinicians play an essential role in identifying trichiasis and referring patients for ophthalmological assessment at the earliest opportunity.[2]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
Children aged 5–9 years living in communities identified as having a high prevalence of trachoma	Local health service to partner with local public health trachoma control program in annual screening activities	Annually or as advised by jurisdictional trachoma control program	Strong	National guideline[2]

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
Adults aged 40 years and over raised in trachoma endemic areas, including those who have had previous trichiasis surgery	Screen for trichiasis If trichiasis is detected, refer for ophthalmology assessment	Opportunistically/ annually	Strong	National guideline[2]
Preventive activity: Behavioural				
Adults with trichiasis who present with pain or irritation from inward turned eyelashes touching the cornea	Removal of eyelash (epilation) by trained clinician using appropriate equipment	As clinically indicated Temporary measure while awaiting surgery	Conditional	National guideline[2] International guideline[5] Single study[6]
Preventive activity: Medication				
Cases of active trachoma	Treat as per jurisdictional and national guidelines Inform regional public health unit	As soon as active trachoma is diagnosed	Strong	National guideline[2]
Household contacts of cases with active trachoma (excluding infants less than 3 kg)	Treat as per jurisdictional and national guidelines	Within one week of the initial case of active trachoma starting treatment	Strong	National guideline[2]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Environmental				
Health services and practices in settings where environmental and living conditions have a strong contribution (environmental attribution) to communicable disease transmission and other conditions, such as mental health issues	Know about diseases with a high environmental attribution Develop a safe clinical relationship in order to ask sensitively about housing and living conditions (inadequate housing facilities; access to health hardware, such as working plumbing for clean drinking water and washing facilities; access to hygiene and sanitation supplies) Know about local arrangements for environmental health referral Offer an environmental health referral according to local arrangements, ensuring consent is obtained when a home visit is involved Advocate with Aboriginal and Torres Strait Islander leaders for adequate housing, facilities for washing and general living conditions Provide community-based health promotion about environmentally attributable diseases **Check local guidelines**	Opportunistically and in response to a diagnosis of trachoma	Good practice point	International and Aboriginal and Torres Strait Islander-specific narrative reviews[7,8]

Implementation tips

- Undertake training in correctly identifying trachoma and trichiasis.
  - Self-learning modules are available through Remote Area Health Corps (see Useful resources)
  - Organise in-service professional development sessions with your regional public health unit.
- Partner with your regional public health unit to support the local control program. A map is available within the Australian trachoma surveillance report with the latest prevalence figures per health region in each state and territory.[4]
- Regarding annual trichiasis checks:
  - ensure your practice software system has an annual recall in place for trichiasis screening for adults aged 40 years and older who grew up in a trachoma endemic area.
- Regarding surgical referrals:
  - consider establishing reminder systems for those patients who have been referred for surgery to discuss and ensure safe pain management options while they are on the waiting list.
- Regarding epilation:
  - ensure you discuss the advantages and disadvantages of epilation; it should not be a replacement for surgery, but a temporary measure while waiting for surgery
  - encourage people to come to the clinic so you can do it for them (if you have the skills/training and appropriate equipment)
  - if in doubt, ask the regional optometrist or ophthalmologist to demonstrate how best to epilate eyelashes during their next visit to the community.

- Regarding environmental checks:
  - ask questions sensitively during the annual health check, such as whether patients have any plumbing problems, whether the taps are leaking, whether the washing machine is working or whether they have anything that needs fixing. You can use this information to write a referral to the environmental health officer or housing and social department according to your jurisdictional protocols.
- Undertake clinical audit in at-risk/trachoma endemic communities using indicators such as:
  - 85% of people aged over 40 years have been screened for trichiasis in the previous 12 months
  - 85% of household contacts of active trachoma cases were treated with antibiotics within 1 week of commencing treatment within that household.[2]

Useful resources

Clinical guidelines

- Trachoma Communicable Diseases Network Australia (CDNA) national guidelines racgp.link/3Zn34vu
- Queensland communicable disease control guidance racgp.link/3XLTYaw

Other resources for health professionals

- Kirby Institute: Latest prevalence and geographic distribution of trachoma racgp.link/4d7RV4X
- Remote Area Health Corps: Self-directed online training racgp.link/4e2nr5N
- Housing for health – the guide: Importance and impact of adequate environmental and housing conditions for health racgp.link/3XISHAX
- Health*InfoNet*: Additional reading on trachoma and trichiasis racgp.link/4e266K0

Health promotion

- Health*InfoNet*: Health promotion resources and materials racgp.link/4e266K0

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Chapter 10: Ear health and hearing

Professor Penelope Abbott, Dr Mary Belfrage

Key messages

- Optimising ear and hearing health and preventing hearing loss are important at all ages. Poor hearing affects language acquisition and general child development, as well as school readiness, attendance and performance.[1] Hearing loss in middle age can impact employment and is linked to brain health and the development of dementia.[2]
- Most hearing loss is preventable. Otitis media (OM) in childhood is the most common cause of transient, intermittent and permanent hearing loss. Other common preventable causes are noise-induced hearing loss and smoking- and chronic disease-related hearing loss.[3]
- The social and cultural determinants of health are strongly linked to OM. OM is associated with inadequate overcrowded housing, nutritional deficiencies and social and economic disadvantage.[3,4] The social and cultural determinants of health can also impede access to appropriate healthcare and be a significant barrier to optimal care.
- Given the high prevalence of OM and higher rate of hearing problems in Aboriginal and Torres Strait Islander people, neonatal screening and childhood ear and hearing health checks are important. This should be linked to follow up with audiometry and proactive management as per existing clinical guidelines.[4,5]
- The role of primary care in the prevention of OM is to give advice to parents about minimising respiratory infections in infants (hygiene practices), promote breastfeeding and provide advice about not smoking around children.
- Preventing the complications of OM requires regular ear checks, appropriate medical treatment and parental education on active strategies to assist their child's learning and education (eg speaking clearly, encouraging communication with children and reducing background noise, and notifying teachers about strategies to facilitate learning).[4–6]
- Excessive noise exposure can cause hearing loss at all ages. Risk is particularly increased for young people through the use of personal listening devices and attendance at loud entertainment venues, and for adults with occupational exposure.[7,8]
- Vascular risk factors and conditions (cigarette smoking, obesity, diabetes, cardiovascular risk factors) are associated with adult hearing loss, supporting the importance of optimising healthy behaviours to maintain good hearing.[9]
- All attempts to improve hearing should be made to prevent or lessen other health and social problems.[4] This may require hearing aids and other sound amplification and acoustic management strategies.

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Immunisation				
Children aged under 15 years	Childhood vaccinations (rubella, measles, *Haemophilus influenzae* type b, meningococcus, varicella)	As per the National Immunisation Program Schedule and state/territory schedules	Strong	National guidelines[4,10]
Children aged 6 weeks – 18 months	Pneumococcal conjugate vaccination (PCV-13 valent)	At age 6 weeks, and at ages 4, 6 and 18 months, as per National Immunisation Program Schedule	Strong	Systematic review[11] National guidelines[4]
All people aged 6 months and older	Annual influenza vaccination is recommended for any person aged over 6 months who wishes to reduce the likelihood of becoming ill with influenza Vaccination may reduce the incidence of acute OM (AOM) as a secondary complication of influenza	Annually	Strong	Systematic review[12] National guideline[4]
Preventive activity: Screening				
All pregnant women	Offer testing for rubella immunity and syphilis serology to prevent infections that may lead to congenital hearing loss	Prior to conception and antenatally (refer to Chapter 5: Preconception and pregnancy care)	Strong	National guidelines[10] Systematic review[13] International guidelines[14]
Newborn infants	Ensure parents of newborn infants are aware of universal neonatal hearing screening programs in their state or territory, that their newborn has been screened for congenital hearing impairment and any recommended follow-up has occurred Advise that at-risk children will require further periodic testing because the onset of hearing loss can be delayed or progressive in some genetic conditions	Prior to age 1 month; if missed, prior to age 3 months If the test is passed but the child is still at high risk, periodic tests to age 3 years	Strong	Systematic review[13] National guidelines[4]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
Children aged 6 months – 5 years	Provide regular ear health and hearing checks: • ask parents/ carers about: – their child's ear health (recent and longer term) – any concerns about their child's ear health, hearing or communication • review children's development of listening and communication skills with parents/carers using appropriate checklists • examine the appearance of the ear canal and ear drum, and assess movement of the ear drum and middle ear using either simple otoscopy plus tympanometry or pneumatic otoscopy • encourage family awareness of hearing-related child developmental milestones for early detection (Box 1)	Opportunistically and at least six monthly until the age of 4 years, and then one check at age 5 years	Good practice point	National guidelines[4,5]
Children aged under 6 years	**Do not** use audiometry to routinely screen for ear or hearing problems in children	N/A	Good practice point	National guidelines[4,5]
Children and young people aged 6-15 years	Monitor for otitis media and hearing impairment by questioning, otoscopy and tympanometry	Opportunistically	Good practice point	Single study National report[3]
Adults aged 15 years and over	Monitor for hearing impairment by questioning, provide advice regarding free hearing assessment and make referrals when appropriate	Opportunistically	Good practice point	Consensus guideline[9]
Adults aged over 50 years	Ask about hearing difficulties	Opportunistically	Good practice point	National guidelines[15] International guidelines[16]
Preventive activity: Behavioural				
Pregnant women and during the postnatal period	Encourage exclusive breastfeeding in the first six months of life	Opportunistically and in antenatal and postnatal checks	Strong	National guidelines[4] Systematic review[17]
Pregnant women and during the postnatal period	Advise that risk of AOM may increase with the use of pacifiers	Opportunistically and in antenatal and postnatal checks	Conditional	National guidelines[4] Single studies[18–20]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural (continued)				
Pregnant women	Advise pregnant women of the risk of cytomegalovirus (CMV) infection, particularly when exposed to young children, and emphasise the importance of handwashing and other strategies to decrease transmission of infection (Box 2)	In antenatal checks	Strong	Systematic review[21] Narrative review[22]
Children aged under 6 years with persistent or recurrent OM, and children in whom there is parental and/or clinical concerns about hearing or communication	Promote the use of active strategies to help communication and learning when children have hearing loss, including transient OM-associated hearing loss (Box 3)	As clinically indicated	Strong	National guidelines[4,5]
Children aged under 6 years with persistent or recurrent OM, and children in whom there is parental and/or clinical concerns about hearing or communication	Arrange audiometry	As clinically indicated	Strong	National guidelines[4,5]
Children with recurrent, persistent and chronic OM conditions	Place on a review register and manage according to their OM diagnoses as recommended by the 2020 OM guidelines[4]	As clinically indicated	Strong	National guideline[4]
Children with OM with effusion (OME)	Recommend nasal autoinflation (see Autoinflation for glue ear in children in Useful resources)	As clinically indicated	Conditional	Systematic reviews[4,23]
Adults aged over 15 years	Advise that the proper use of hearing protection devices in noisy environments can prevent occupational noise-related hearing loss	Opportunistically	Strong	Systematic review[8] International report[13]
All parents and carers of young children	Inform families about the prevention, early detection and treatment of OM in children to prevent hearing loss	Opportunistically	Good practice point	National guideline[4]
All parents and carers of young children	Inform families of the importance of nose blowing, facial cleanliness and the washing and drying of hands to prevent the transmission of infectious disease that can cause OM or hearing loss	As clinically indicated and opportunistically	Conditional	National guidelines[4] Single studies[24,25]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural (continued)				
All people	Promote good ear hygiene and safe practices: • avoid the use of cotton-tipped swabs for the ear • do not inserting any objects or liquids in the ear • avoid the use of home remedies for common ear conditions • seek prompt medical attention to treat ear	Opportunistically	Good practice point	Expert consensus[13]
All smokers	Advise that tobacco smoking is a risk factor for hearing loss in adulthood, including exacerbation of noise-induced hearing loss, and support smoking cessation	Opportunistically	Strong	Single study[9]
All people with persistent hearing loss or recurrent OM	Refer for assessment for hearing aid/ remediation Discuss strategies with patients and families to maximise hearing and communication	As clinically indicated	Good practice point	Expert consensus[2] Clinical guidelines[4]
All people	Inform families of the danger of loud noise (and for prolonged periods), especially for children with a history of ear disease	Opportunistic	Good practice point	Expert consensus[8]
All people	Inform families and smokers about the need to avoid children being exposed to cigarette smoke (see Chapter 2: Healthy living and health risks, Smoking)	Opportunistically	Strong	National guideline[4]
Preventive activity: Medication				
Children with OM	Ensure best practice management of OM, including the use of medication and other therapies as appropriate and according to guidelines	As clinically indicated	Good practice point	National guideline[4]
All people	Limit the use of medications with the potential for ototoxicity where possible	As clinically indicated	Good practice point	Clinical guidelines[13,26]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Environmental				
Health services and practices	Promote frequent nose blowing, facial cleanliness and the washing and drying of hands in early learning and childcare centres and preschools	Opportunistically where health service/practice has links	Good practice point	Systematic review[23] Randomised controlled trial[27]
Health services and practices in settings where environmental and living conditions have a strong contribution (environmental attribution) to communicable disease transmission and other conditions, such as mental health issues	Know about diseases with a high environmental attribution Develop a safe clinical relationship in order to ask sensitively about housing and living conditions (inadequate housing facilities, access to health hardware such as working plumbing for clean drinking water and washing facilities, access to hygiene and sanitation supplies) Know about local arrangements for environmental health referral Offer an environmental health referral according to local arrangements, ensuring consent is obtained when a home visit is involved Advocate with Aboriginal and Torres Strait Islander leaders for adequate housing, facilities for washing and general living conditions Provide community-based health promotion about environmentally attributable diseases **Check local guidelines**	Opportunistically, in response to any diagnosis or condition with an environmental attribution and as part of general healthcare	Good practice point	International and Aboriginal and Torres Strait Islander-specific narrative reviews[28,29]

Box 1. Hearing-related growth milestones in children[4]

Parental questionnaires can check a child's progress through the following hearing-related growth milestones.

Warning signs that children may have hearing problems include:

- **3–6 months:** Not communicating by vocalising or eye gaze; not starting to babble
- **9 months:** Poor feeding or oral coordination; no gestures (pointing, showing, waving); no two-part babble (eg 'gaga')
- **12 months:** Not babbling; no babbled phrases that sound like talking
- **20 months:** Only pointing or using gestures (not speaking); no clear words; cannot understand short requests
- **24 months:** Using less than 50 words, not following simple requests; not putting words together; most of what is said is not easily understood
- **30 months:** No two-word combinations
- **36 months:** Speech difficult to understand; no simple sentences
- **48 months:** Speech difficult to understand; not following directions involving two steps
- **60 months:** Difficulty telling parent what is wrong; cannot answer questions in a simple conversation

Box 2. Strategies recommended by the Centers for Disease Control and Prevention to reduce the risk of cytomegalovirus infection for women who are pregnant or planning to become pregnant[14]

- Thoroughly wash hands with soap and warm water after activities such as:
  - nappy changes
  - feeding or bathing a young child
  - wiping a child's runny nose or drool
  - handling a child's toys
- Do not share food, drinks, eating utensils used by young children
- Do not put a child's dummy in your mouth
- Do not share a toothbrush with a young child
- Avoid contact with saliva when kissing a young child
- Clean toys, countertops and other surfaces that come in contact with urine or saliva

See Useful resources for parent education on the prevention of CMV infection.

Box 3. Active strategies to support communication and learning when children have hearing loss, including transient otitis media-associated hearing loss[4,6,30]

- Families can help communication and learning by:
  - getting their child's attention before starting to talk
  - standing close to and facing their child as much as possible when speaking
  - speaking clearly and maintaining a normal rhythm of speech
  - encouraging a lot of talking in quiet places, storytelling, reading books and interacting with the child about their story; using the Yarning from Home resources to promote their child's listening and talking may help.
- For school-aged children:
  - the teacher may realise a child is having learning or behaviour problems but may not be aware that this is because of their hearing (it is important for parents to tell the teacher about their child's hearing so that arrangements can be made in school to help)
  - the child should be able to sit near the teacher in the classroom
  - the teacher should check they have the child's attention, allow more time, check in frequently on the child's understanding and make sure the child is not made to feel awkward about asking for things to be repeated
  - sound amplification and better classroom acoustics may be useful.

Implementation tips

- Children with recurrent, persistent and chronic OM conditions should be placed on a review (recall) register and should be managed according to their diagnoses as per OM management guidelines.
- Parents and carers of newborns and infants should be advised of the risk of early respiratory tract infections to longer-term ear health and the importance of regular ear health and hearing checks.
- Make sure all clinical staff working with young children (Aboriginal and Torres Strait Islander health workers/health practitioners, nurses, GPs) are familiar with the strategies that support communication and learning (Box 3) and can advise parents/carers about helping children to listen and talk at home, and to use strategies that help children communicate when they have OM or hearing loss.

Useful resources

Clinical guidelines

- *2020 Otitis media guidelines for Aboriginal and Torres Strait Islander children* – these are available in multiple formats, including online desktop access and via an app. The app may be particularly useful for clinicians and contains extensive educational material and information to guide diagnosis and management, as well as access to the OM guidelines
  - Hard copy racgp.link/47v5XfL
  - App racgp.link/3B8CY5t
- The Royal Australian College of General Practitioners (RACGP), Handbook for non-drug interventions (HANDI): *Autoinflation for glue ear in children* racgp.link/4euXOKm

Tools

- Parent-evaluated Listening and Understanding Measure (PLUM) and Hearing and Talking Scale (HATS) hearing and communication tools and resources for Aboriginal and Torres Strait Islander children – National Acoustic Laboratories has developed the PLUM and HATS checklists to assist in screening and taking history on hearing health and communication in children aged under 6 years. The site also includes the Yarning at Home resources to guide parents on how to help their children to listen and talk at home racgp.link/3XvzCB2

Other resources for health professionals

- Resources for parent education on the prevention of CMV infection are available from the Centers for Disease Control and Prevention racgp.link/3XpTPrC
- Hearing Australia resources, including information on the prevention of hearing loss and educational materials for children and adults, as well as details of screening and treatment racgp.link/3XpTPrC
- AllPlay Learn – resources to help and support children and young people with developmental challenges and disabilities, including hearing loss, to successfully participate in education and other activities
  - racgp.link/3XpTXr6
  - racgp.link/3XvzAsU

Education about avoiding noise-induced hearing loss

- National Acoustic Laboratories: Know Your Noise safe listening racgp.link/47x5ERA
- World Health Organization: Make listening safe initiatives racgp.link/3MUKMdD

Parent and carer resources

- AllPlay Learn program – a range of resources, posters, handouts and more to support the inclusion of children with disabilities and developmental challenges racgp.link/3BcCnQ2

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Chapter 11: Oral and dental health

Professor Julie Satur

Key messages

- Oral diseases (tooth decay, gum disease, tooth erosion, oral cancers) have significant impacts on general health, eating, sleeping, self-esteem and social participation.
- Cleaning the teeth and mouth twice a day using fluoride toothpaste reduces decay and improves gum health.[1]
- Sugars are metabolised to produce acid that demineralises teeth. Reducing sugar consumption reduces dental decay.[2]
- Water (especially fluoridated) is the best choice of drink.[1–3]
- Regular mouth checks help with prevention and early intervention.[4,5]
- The role of primary healthcare providers is critical to promoting oral health, identifying oral diseases and providing preventive advice and appropriate referral.

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
Children aged 0–5 years	Undertake an oral health review including the assessment of teeth, gums and oral mucosa, as part of a regular health check (Box 1) Consider risk behaviours (sugar intake, smoking, alcohol), fluoride exposure and disease symptoms (eg pain) Provide preventive advice or referral to dental practitioner if required/possible	Opportunistically (with parents) and as part of an annual health check	Strong	National guidelines[5,6]
People aged 6–18 years		Annually	Strong	National consensus statement[1]
Adults with poor oral health and/or risk factors for dental disease		Annually	Conditional	National consensus statement[1]
People with diabetes, immunosuppression, haematological conditions, bleeding disorders or anticoagulant therapy		Regularly check oral health and plaque control (oral hygiene) with review of condition	Strong	National guideline[4]
All pregnant women		At first antenatal visit	Strong	National guidelines[2,5,6]
Adults with good oral health		Every two years	Strong	National consensus statement[1]
People with a past history of rheumatic heart disease or with risk factors for subacute bacterial endocarditis and cardiovascular abnormalities		Every six months	Strong	National guideline[4]
Preventive activity: Behavioural				
All people	Advise healthy diet and minimising sugar consumption, including sugary drinks Promote water as the main drink	Opportunistically and as part of annual health check	Strong	National guideline[2]
Preventive activity: Medication (fluoride)				
Children aged 0–18 months	Teeth should be cleaned without toothpaste by a responsible adult where water is fluoridated In areas where water is not fluoridated, earlier use of fluoride toothpaste is recommended[A]	Daily	Strong	National guideline[3]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medication (fluoride) (continued)				
Children aged 18 months – 5 years	Recommend the use of toothpaste containing 0.5–0.55 mg/g of fluoride (500–550 ppm) fluoride at least once daily from the time the teeth start to erupt[A] (refer to Box 3)	Twice daily	Strong	National guideline[3]
People aged over 6 years	Recommend the use of toothpaste containing 1–1.5 mg/g fluoride (1000–1500 ppm) fluoride twice daily (refer to Box 3) Advise to spit out the toothpaste, not to swallow it and not to rinse[B]	Twice daily	Strong	National guideline[3]
Children aged 18 months – 5 years where families have evidence of tooth decay and/ or poor oral hygiene	Application of a fluoride varnish from the age of 2 years by a dental team or trained medical, health or Aboriginal health practitioner where appropriate If resources do not permit, then recommend the daily use of fluoride toothpaste and provide dietary advice	At least every six months and for a period of not less than 24 months	Strong	National guideline[3]
People aged 5 years and over at high risk of tooth decay (Box 2)		Two to four times per year for professional application of fluoride varnish	Conditional	National guideline[3]
Preventive activity: Medication				
People at high risk of endocarditis (rheumatic heart disease, previous infective endocarditis, prosthetic cardiac valves, certain forms of congenital heart disease, cardiac transplantation)	Consider antibiotic prophylaxis prior to dental procedures (refer to clinical guidelines in Useful resources)	Opportunistically	Strong	National guideline[4]
Preventive activity: Environmental				
Communities	Advocate for fluoridation of community water supply	Opportunistically	Strong	National guidelines[3,7]

[A]Use a smear of paste for children aged <18 months and a pea-sized amount for children aged 18 months – 5 years with a child-sized soft toothbrush. Toothpaste with a fluoride concentration of 500–550 ppm (0.5–0.55 mg/g fluoride) for children aged under 18 months and 1000 ppm for children aged over 18 months is recommended, unless there is a risk of fluorosis. Toothpaste should be used under the supervision of a responsible adult; young children should not be permitted to lick or eat toothpaste.[3]

[B]For teenagers, adults and older adults who do not consume fluoridated water or who are at elevated risk of developing caries, dental professional advice should be sought to determine whether they should brush more frequently, use a fluoride mouth rinse or use a toothpaste containing a higher concentration of fluoride (5 mg/g or 5000 ppm).[3]

Box 1. Oral health for non-dental health professionals

Although review with dental professionals is recommended to comprehensively assess for caries risk and the presence of disease, the following general principles are recommended for non-dental professionals:

Assessment

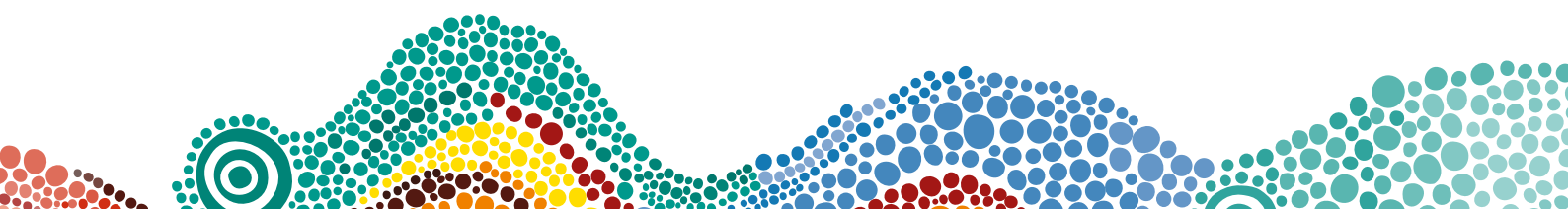
- Visual inspection of the teeth for evidence of caries, periodontal disease and oral mucosal abnormalities, as well as assessment of facial swellings, pain, maternal caries and/or oral hygiene (plaque levels and gingival inflammation)
- Assessment of oral hygiene practices
- Assessment of water consumption and access to fluoridated water supply
- Identification of barriers to oral health

Advice

- Brush teeth twice daily with a soft toothbrush and fluoride toothpaste and advise to spit out, not rinse, excess paste
- Advise about the hazards of high-carbohydrate and high-sugar or acidic snacks and drinks, especially between meals
- Encourage water as the preferred drink. Advise against high and regular consumption of black cola, sweetened fizzy drinks and sports drinks, especially between meals
- Where risk and/or disease levels are high, provide advice about fluoride use
- Gingival inflammation (bleeding) can usually be resolved with regular brushing of teeth and interdental cleaning
- Promote breastfeeding, with weaning to a baby cup, not a bottle. Discourage the consumption of sugars and sweetened drinks by young children, especially in baby bottles, 'honey on the dummy' or other sweet substances (eg such as glycerine) on the dummy and the intake of sugared medicines
- If bottles are used, advise against the use of any fluid apart from water or milk, and do not put the baby to sleep with a bottle
- Advise about smoking cessation and limiting alcohol consumption
- Use sugar-free chewing gum for saliva stimulation
- Use a mouth guard when playing contact sport
- Recommend regular dental check-ups
- Support water fluoridation

Box 2. Risk factors for dental disease

- Low exposure to fluoride
- Poor diet and nutrition (eg high and regular consumption of sucrose- and carbohydrate-containing foods and drinks, especially black cola and sweetened fizzy drinks)
- Tobacco smoking and alcohol consumption, which are risk factors for the development of oral cancer, with the risk enhanced when smoking and alcohol consumption occur at the same time
- Poor oral hygiene practices (eg no/irregular toothbrushing, using a hard toothbrush, no use of fluoride toothpaste, inadequate brushing technique)
- Poor salivary composition and flow, reducing the protective effect of saliva
- Unmanaged xerostomia or dry mouth, which can also contribute to development of tooth decay. Risk factors for xerostomia include dehydration and many common medications (eg antidepressants, antihypertensives, anticoagulants, antiretrovirals, hypoglycaemics, non-steroidal anti-inflammatory drugs and steroid inhalers), radio- and chemotherapy for cancers of the head and neck, Sjögren's syndrome, human immunodeficiency virus (HIV) infection and diabetes, particularly in people with poor glycaemic control
- High consumption of acidic foods and drinks, such as sports drinks and juices, which can contribute to tooth erosion; bulimia is also an erosion risk factor
- General risk factors for periodontal disease include smoking, diabetes, advancing age, stress and poor oral hygiene
- HIV infection can also contribute to a greater risk of periodontal disease, oral ulceration and cancer



Box 3. Guidelines for the use of fluorides: Summary

- From the time that teeth first erupt (about 6 months of age) to the age of 17 months, children's teeth should be cleaned by a responsible adult, but not with toothpaste.
- For children aged between 18 months and 5 years (inclusive), the teeth should be cleaned twice a day with toothpaste containing 0.5–0.55 mg/g (500–550 ppm) fluoride. Toothpaste should always be used under the supervision of a responsible adult. A small pea-sized amount should be applied to a child-sized soft toothbrush and children should spit out, not swallow, and not rinse. Young children should not be permitted to lick or eat toothpaste. Standard toothpaste is not recommended for children aged under 6 years unless on the advice of a dental professional or a trained health professional.
- For people aged 6 years or more, the teeth should be cleaned twice a day or more frequently with standard fluoride toothpaste containing 1–1.5 mg/g (1,000–1,500 ppm) fluoride. People aged 6 years or more should spit out, not swallow, and not rinse.
- For people who do not consume fluoridated water or who are at elevated risk of developing caries for any other reason, guidelines about the use of toothpaste should be varied, as needed, based on dental professional or trained health professional advice. Variations could include more frequent use of fluoridated toothpaste, starting toothpaste use at a younger age or earlier commencement of the use of standard toothpaste. This guideline may be applied particularly to preschool children at elevated risk of caries.
- For teenagers, adults and older adults who are at elevated risk of developing caries, dental professional or trained health professional advice should be sought to determine whether they should use toothpaste containing a higher concentration (5 mg/g or 5,000 ppm) of fluoride.
- Children below the age of 6 years should not use fluoride mouth rinse.
- Fluoride mouth rinse may be used by people aged 6 years or more who have an elevated risk of developing caries. Fluoride mouth rinse should be used at a time of day when toothpaste is not used, and it should not be a substitute for brushing with fluoridated toothpaste. After rinsing, mouth rinse should be spat out, not swallowed.
- High-concentration fluoride gels (those containing more than 1.5 mg/g fluoride ion) may be used for people aged 10 years or more who are at an elevated risk of developing caries.

Implementation tips

- Include oral and teeth checks in general health checks
- Provide toothbrushes and toothpaste when available (from government dental services in some jurisdictions)
- Work with local dental services to establish clear and accessible referral pathways, including for emergency dental services

Useful resources

Clinical guidelines

- Oral and Dental Expert Group, Therapeutic guidelines: *Oral and dental, Version 3* racgp.link/3TvRMkQ
- ARF and RHD guidelines for the prevention of infective endocarditis racgp.link/3Tw3ig8
- Article in the *Australian Dental Journal*: Guidelines for use of fluorides in Australia: Updated 2019 racgp.link/3TwrvTE

Health promotion resources

- Australian Indigenous Health*InfoNet*: Health promotion resources racgp.link/3MP4wzq
- Dental Health Services Victoria: Manuals and toolkits racgp.link/4ehuqHE
- NSW Government: Resources for Aboriginal and Torres Strait Islander peoples racgp.link/47t1pXk
- Victorian Government Department of Health Better Health Channel: Mouth and teeth racgp.link/47t1ryq
- Smiles for Life: A national oral health curriculum: Learning modules on oral health for health professionals racgp.link/4daAwbG
- Australian Dental Association factsheets racgp.link/4dbEQr8
- Rethink Sugary Drink: A broad partnership between health and community organisations with Aboriginal-specific resources racgp.link/3XtnJvd

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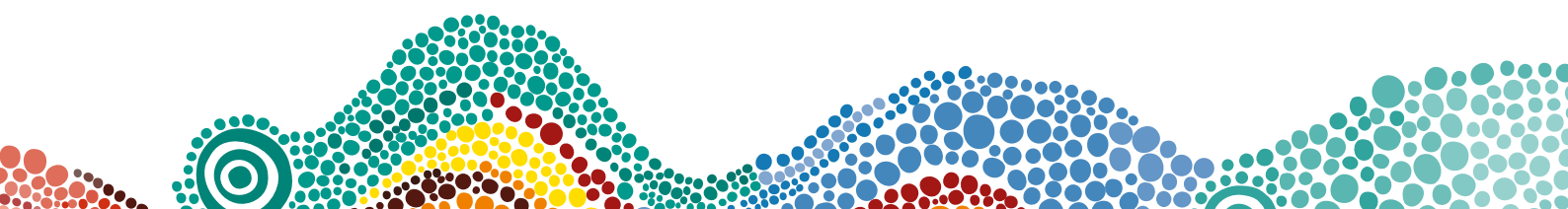


Chapter 12: Acute rheumatic fever and rheumatic heart disease

Dr James Doran, Ms Vicky Wade

Key messages

- Acute rheumatic fever (ARF) and its chronic sequela rheumatic heart disease (RHD) are preventable.[1]
- Primordial prevention strategies that focus on the social, cultural and environmental determinants of health are critical in reducing rates of Streptococcus A (Strep A)-associated diseases, including ARF and RHD. Improving living conditions is associated with decreasing ARF and RHD in most high-income countries, including Australia.
- Aboriginal and Torres Strait Islander people face many barriers to accessing healthcare. Providing culturally safe care can increase access to healthcare and help reduce the burden of ARF and RHD.
- The co-design of services and systems across sectors that support the physical wellbeing and social, emotional and mental health of Aboriginal and Torres Strait Islander children and youth requires integration within primary care ARF/RHD models of care.
- Early treatment for sore throat, and the prevention and treatment of skin infections, can prevent primary and recurrent ARF.[1]
- ARF can be a challenging diagnosis involving various symptoms and signs that do not necessarily co-occur.[1] Failure to diagnose can result in missing the opportunity for secondary prophylaxis, thereby increasing the risk of recurrent ARF and long-term heart valve damage (RHD). The revised Jones criteria include features specific to high-risk communities.[2–4]
- Echocardiography is required for the diagnosis and monitoring of RHD. Cardiac auscultation is neither specific nor sensitive enough to be used as a screening test for RHD.[1]
- Many people living with ARF and RHD have multiple medical comorbidities. It is essential to design models of care in partnership with Aboriginal and Torres Strait Islander communities that recognise RHD does not occur in isolation and integrate care into the longitudinal, comprehensive management of other comorbidities.[5]
- Self-determination and shared decision making are vital to improve effective design and delivery of ARF/RHD programs.
- Respectful partnerships between Aboriginal and Torres Strait Islander Community Controlled Health Service Organisations (ACCHSOs)/primary healthcare services and tertiary care institutions support adequate and timely targeted treatment for those who already have ARF or RHD.
- Accurate and timely data access remains problematic for clinicians: multiple electronic medical record systems in place do not allow streamlined access of information for different services.
- Public health initiatives and priorities as identified by Aboriginal and Torres Strait Islander leadership that are incorporated into comprehensive primary healthcare and delivered in locally adapted and appropriate ways are key to preventing ARF and RHD.

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
People from high-risk groups or living in high-risk settings for ARF/RHD	Undertake cardiac auscultation as part of a general check-up, but do not rely on cardiac auscultation to screen for RHD due to poor sensitivity and specificity	Opportunistically	Strong	National guideline[1]
People from high-risk groups or living in high-risk settings for ARF/RHD (targeted screening)	Use echocardiography to screen for RHD	Opportunistically	Conditional	National guideline[1]
All people with a past history of ARF, or cardiac murmurs suggestive of valve disease	Refer for echocardiography and subsequent follow-up* Refer to management guidelines for specific advice	As per management guidelines	Strong	National guideline[1]
All women as part of pre-pregnancy planning and all pregnant women coming from high-risk groups or living in high-risk settings for ARF/RHD	Targeted screening using echocardiography*	Opportunistically and as part of routine preconception and pregnancy care	Strong	National guideline[1]
Preventive activity: Behavioural				
People in high-risk groups or living in high-risk settings for ARF/RHD or with a history of ARF or known RHD	Emphasise the importance of early treatment for sore throat, and the prevention and treatment of skin infections Advise about healthy living and health risks (smoking, diet, exercise, dental health) and the need for regular clinical reviews (refer to Chapter 2: Healthy living and health risks)	Opportunistically	Strong	National guideline[1]
Women in high-risk groups or living in high-risk settings for ARF/RHD or with a past history of ARF or known RHD	Promote effective contraception for all girls and women, especially if pregnancy poses a health risk Avoid oestrogen-containing contraceptives	As clinically indicated	Strong	National guideline[1]
Preventive activity: Medication				
People in high-risk groups for ARF and RHD with throat and skin infections	Treat promptly as per guidelines and determine a family's preferred method of treatment	As clinically indicated on presentation	Strong	National guideline[1]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medication (continued)				
People with a diagnosis of ARF or RHD	Notify to the local RHD register for coordination of treatment Treat promptly as per guidelines and determine a family's preferred method of treatment	Regimen according to national guidelines with support for self-management at every health assessment	Strong	National guideline[1]
People with a diagnosis of RHD	Symptom management of cardiac disease and extended care according to disease priority classification	As clinically indicated, as per individual care plan	Strong	National guideline[1]
People with a diagnosis of RHD	Bacterial endocarditis prevention prior to identified procedures	As clinically indicated	Strong	National guideline[1]
Preventive activity: Environmental				
Health services and practices in settings with where environmental and living conditions have strong contribution (environmental attribution) to communicable disease transmission and other conditions, such as mental health issues	Know about diseases with a high environmental attribution Develop a safe clinical relationship in order to ask sensitively about housing and living conditions (inadequate housing facilities; access to health hardware, such as working plumbing for clean drinking water and washing facilities; access to hygiene and sanitation supplies) Know about local arrangements for environmental health referral Offer an environmental health referral according to local arrangements, ensuring consent is obtained when a home visit is involved Advocate with Aboriginal and Torres Strait Islander leaders for adequate housing, facilities for washing and general living conditions Provide community-based health promotion about environmentally attributable diseases **Check local guidelines**	Opportunistically, in response to any diagnosis or condition with an environmental attribution and as part of general healthcare	Good practice point	Environmental attributable fractions in remote Australia: the potential of a new approach for local public health action[6]

Implementation tips

- Where ARF and RHD are notifiable conditions, clinicians are required to notify the relevant public health authority as soon as possible after confirming the diagnosis (including possible and probable ARF and borderline RHD).
- Individuals and families should be involved in all decisions regarding the prevention and management of recurrent ARF and RHD.
- Minimising the pain and distress of intramuscular injections is a key factor in successful treatment. Benzathine penicillin G (BPG) injections should be administered by trained and experienced staff according to the patient's preference and choice for injection site and method of pain management.[1]
- Most people with ARF and RHD are preteens, adolescents and young adults. Attention to continuity of care and avoiding implementation of child-only or adult-only RHD programs within primary care services are critical components of a successful prevention program.[7–9]
- Health services should adopt a flexible approach to where injections are administered (eg clinic, home, clinic vehicle, school, workplace)[7] and should arrange 'fast tracking' for young people who are attending the clinic for their injections to reduce wait times.
- Communities with the highest incidence of ARF also experience a high turnover of medical and nursing staff. Thus, resident primary healthcare staff, particularly Aboriginal and Torres Strait Islander health workers, must be appropriately trained and supported to maintain their skills.
- In clinical practice, true penicillin allergy is rare.[10] Given a lack of adequate prophylaxis can have disastrous sequelae, it is important to verify the type and severity of the allergic reaction, because many reactions are mild (eg nausea or local injection irritation). Referral to an allergist or immunologist is recommended where possible to determine whether there is an absolute contraindication to penicillin.
- Conduct clinical audits to support continuous quality improvement (eg recording of ARF and/or RHD in health records, treatment of skin infections, treatment of throat infections, timeliness and acceptability of secondary prevention/ antibiotic administration, referral to environmental services).

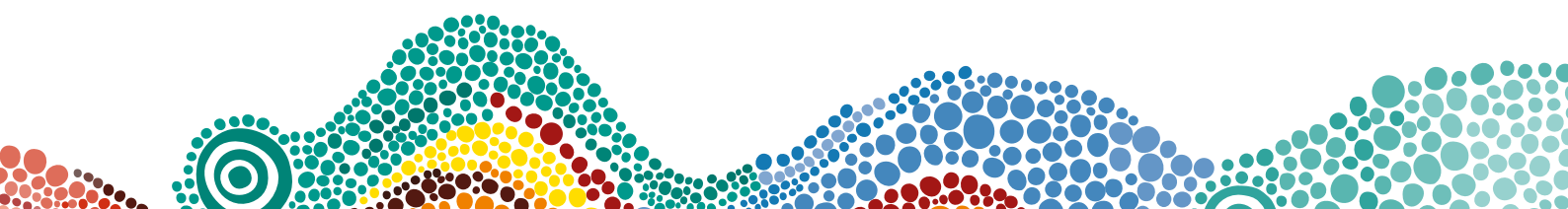
Useful resources

Clinical guidelines

- RHD Australia: *2020 Australian guideline for prevention, diagnosis and management of acute rheumatic fever and rheumatic heart disease,* 3rd edition racgp.link/4erYh08
- Telethon Kids Institute: *National healthy skin guideline, 2023* racgp.link/3XnxT0q
- ARF and RHD registries
- NT Health: Rheumatic Heart Disease program racgp.link/47vB9LV
- WA Rheumatic Heart Disease Register racgp.link/3B8lHcq
- SA Rheumatic Heart Disease (RHD) Register racgp.link/3zp1LBz
- Notification of Rheumatic Heart Disease and Acute Rhematic Fever (Victoria) racgp.link/3TzGY5k
- ARF/RHD Register consent (New South Wales) racgp.link/3TvF5Xc

Other resources for health professionals

- National Aboriginal Community Controlled Health Organisation (NACCHO) resource hub racgp.link/3znNPba
- ARF diagnosis app racgp.link/3TxtvuR
- Therapeutics for rheumatic fever and rheumatic heart disease (journal article) racgp.link/4eJq5gL



Professional development

- RHD Australia eLearning programs racgp.link/4etGBkP

Environmental health

- *Housing for health – the guide* racgp.link/3XISHAX
- Nirrumbuk Environmental Health and Services: Example of community controlled environmental health service provision racgp.link/4e71hPA
- Government of Western Australia Department of Health: Environmental health referrals, 2022 racgp.link/3Zr4YLu

Health promotion materials

- Indigenous Health*Info*Net racgp.link/3XwcAcW
- RHD Australia resource library racgp.link/4gDz8BA

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Chapter 13: Sexually transmissible infections and blood-borne viruses

Dr Lea Merone

Key messages

- Aboriginal and Torres Strait Islander people are disproportionately affected by sexually transmissible infections (STIs) and blood-borne viruses (BBVs).[1]
- STIs are often asymptomatic and may cause long-term sequelae, particularly for women, such as infertility and both maternal and infant complications in pregnancy.[2]
- High rates of STIs in remote Australia are due to a complex interplay of social determinants of health and health service access, including factors such as poverty, culturally unsafe health services, stigma, discrimination and shame.[3,4]
- Regular testing, treatment and contact tracing is key to reducing rates of STIs and BBVs.[5]
- High rates of infectious syphilis in women of reproductive age have coincided with high rates of congenital syphilis, both of which disproportionately affect Aboriginal and Torres Strait Islander communities.[6]
- All women should receive at least three syphilis tests during pregnancy: at first antenatal contact, at 28–32 weeks gestation and at the time of birth. Some jurisdictions and regions may recommend additional testing so local or jurisdictional guidelines should be consulted.
- The prevention of STIs and BBVs includes: immunisation (eg hepatitis B and human papilloma virus (HPV)); education and access to safe sex resources, pre-exposure prophylaxis (PrEP) for HIV and safe injecting equipment; and testing, treatment and contact tracing.[5]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Immunisation				
People aged 9–25 years	Recommend HPV vaccination (single dose)	Age 9–25 years: single dose	Strong	National guideline[8]
People aged 26 years and over, including: • **people with severely immunocompromising conditions** • **men who have sex with men (MSM)**	Recommend HPV vaccination (three doses)	As clinically indicated	Strong	National guideline[8]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Immunisation (continued)				
All infants	Recommend hepatitis B vaccination	At birth and 2, 4 and 6 months of age	Strong	National guideline[8]
All adults who are not immune to hepatitis B	Recommend hepatitis B immunisation if not previously vaccinated Consult The Australian immunisation handbook[8] if previously immunised (non-responder; see also Useful resources)	When immune status is known, as clinically indicated	Strong	National guideline[8]
Preventive activity: Screening				
All sexually active people aged 30 years and younger (34 years and younger in remote areas), people at risk of STIs and BBVs and/ or anyone who requests screening (see Table 1)	Determine the risk of STI with a sexual health history where possible Offer screening for chlamydia, gonorrhoea, syphilis and HIV Offer screening for trichomoniasis in areas of known high prevalence	At least annually, and when requested	Good practice point	National guidelines[5,9,10]
All pregnant women	Offer serological testing for hepatitis B, hepatitis C, human immunodeficiency virus and syphilis.	At first antenatal visit, and at 28 weeks gestation and birth (and additional times if recommended in local area or particularly high risk)	Strong	National guideline[7]
All pregnant women	Offer chlamydia and gonorrhoea testing	At first antenatal visit Repeat three monthly in women with ongoing risk factors	Strong	National guideline[11]
All adults not previously screened for hepatitis B or those whose immune or infective status is not known	Recommend testing for hepatitis B (hepatitis B s antigen (HBsAg), anti-hepatitis B surface (anti-HBs) antibody, anti-hepatitis B core (anti-HBc) antibody) and record status Testing does not need to be repeated if the person is immune	Once off, with subsequent monitoring for hepatitis B-positive patients	Strong	National guideline[5]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
Adults at higher risk of hepatitis C (see Box 1)	Recommend testing for hepatitis C antibodies (anti-hepatitis C virus (HCV) antibody) plus HCV RNA if antibody positive	Opportunistically, at least annually and when requested	Good practice point	National guideline[5]
Women aged 25–74 years	Recommend HPV cervical cancer screening (see Chapter 19: Cancer prevention and early detection, Cervical cancer)	Every five years	Strong	National guideline[12]
Preventive activity: Behavioural				
People with a diagnosed STI	Review risk factors and perform contact tracing at time of diagnosis Seek consent for contact tracing and consider whether the patient would prefer to initiate Screen for other STIs and BBVs Retest two to three months after treatment completion as per STI clinical guidelines	At diagnosis, and then retest for STIs and BBVs two to three months after treatment completion	Strong	National guideline[5]
Sexual partners of a person diagnosed with an STI	Offer contacts screening for STIs and BBVs Offer immediate treatment for the STI diagnosed in the index case	Every new STI diagnosis	Strong	National guideline[5]
All sexually active patients	Advise to use condoms in new relationships Advise partners to access STI screening	Opportunistically and during health checks	Strong	National guideline[5]
People at risk of BBVs (see Box 2)	Provide harm minimisation counselling for those who inject drugs Provide education around safer sex	Opportunistically	Good practice point	National guideline[5]
People who inject drugs	Provide brief interventions and harm minimisation counselling to reduce the use of substances Provide access to or information on needle and syringe programs (NSPs) and addiction services, where appropriate	Opportunistically and as clinically indicated	Good practice point	National guideline[5]
People with opioid dependence, including those who are incarcerated or in rehabilitation	Refer to addiction services/opioid substitution program if consenting	As clinically indicated	Strong	National guideline[5] Narrative review[13]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medication				
People with a diagnosed STI (especially chlamydia) **Refer to Useful resources, Patient-delivered partner therapy for permissions and limitations**	Provide prescription/medication for patient-delivered partner therapy	As clinically indicated and when permitted	Conditional	National guideline[14]
People at ongoing risk of non-occupational HIV exposure (eg MSM, injecting drug users and partners of HIV-positive people)	Offer HIV PrEP	Opportunistically	Conditional	National guidelines[15,16]
People with exposure to HIV in occupational or non-occupational capacities	Assess postexposure risk using national guidelines Prescribe postexposure prophylaxis, if required, within 72 hours of exposure Refer to Section 100 (s100) prescriber, if required	Opportunistically	Good practice point	National guidelines[5,16]
Preventive activity: Environmental				
All sexually active people	Ensure access to condoms, preferably free and available all hours	Opportunistically	Good practice point	National guideline[5] Single study[17]
People in prison settings	Advocate for and, where appropriate, provide testing, treatment and follow-up for STIs and BBVs	On admission and regularly as per clinical guidelines	Strong	National guideline[5]
People in prison settings	Advocate for NSPs	Opportunistically	Good practice point	Peer-reviewed viewpoint article[18]

Table 1. Testing for specific sexually transmissible infections and blood-borne viruses

Test	Process	Consideration
HIV	HIV antigen/antibody	Repeat in six weeks if there is recent exposure and antigen/antibody negative
Syphilis	Serology: syphilis antibody Swab of ulcer: PCR	Antibody tests are usually positive for life following infection RPR is a marker of disease activity and response to treatment; non-reactive if treatment is successful If there is recent exposure, repeat at 12 weeks and treat presumptively
Hepatitis B	HBsAg Anti-HBs antibody Anti-HBc antibody	HBsAg indicates active infection Anti-HBs antibody indicates immunity (vaccination or past infection) Anti-HBc antibody indicates infection (past or current)
Hepatitis C	Hepatitis C antibody test Hepatitis C RNA test	Hepatitis C antibody test indicates whether there has ever been HCV infection Hepatitis C RNA test indicates present HCV infection
Chlamydia, gonorrhoea, trichomoniasis	Urethral first-pass urine or vaginal swab for NAAT	Vaginal swab is more sensitive and the preferred method Trichomonas testing is only performed in populations with high prevalence
Herpes simplex virus	Swab from genital lesion for NAAT	Consider also testing for syphilis
Cervical screening	Either cervical smear or patient-collected vaginal swab	
Mycoplasma genitalium, bacterial vaginosis, HPV	Asymptomatic screening not recommended	

Anti-HBc antibody, anti-hepatitis B core antibody; anti-HBs antibody, anti-hepatitis B surface antibody; HBsAg, hepatitis B s antigen; HCV, hepatitis C virus; HPV, human papilloma virus; NAAT, nucleic acid amplification test; PCR, polymerase chain reaction; RPR, rapid plasma regain.

Implementation tips

- Identify and implement opportunities to make STI and BBV testing routine, including relevant staff training, clinical prompts in medical software, continuous quality activity cycles and the availability of decision-making tools.
- Support periodic clinical audits to ensure clients with hepatitis B and C are monitored and treated.
- Ensure understanding regarding notification and contact tracing protocols, including timely involvement of local public health units.
- Undertake and encourage s100 training to improve access to hepatitis B and HIV prescribing.
- Seek opportunities to build confidence in hepatitis C prescribing through training and relationships with relevant local specialists.
- Make condoms freely and discreetly available, and work with local stakeholders to ensure needle and syringe program (NSP) access.

Useful resources

Clinical guidelines

- Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM): *Australian STI management guidelines for use in primary care* racgp.link/4d4cwHr
- ASHM: *Australasian contact tracing guidelines 2022* racgp.link/4gshqkm
- *The Australian immunisation handbook* racgp.link/3MQ0C9l
- The Royal Australian College of General Practitioners: *Guidelines for preventive activities in general practice* racgp.link/47xJe2B
- ASHM guidelines regarding eligibility for PrEP racgp.link/3MQVeD0
- ASHM and Queensland Health: Chlamydia and gonorrhoea testing racgp.link/3MQsVV0
- ASHM: *Hepatitis B virus testing and interpreting test results* racgp.link/3Twel93

Tools

- ASHM: Interactive syphilis decision-making tool racgp.link/3TW5yxx
- ASHM: Decision making in syphilis racgp.link/3Tx7L22
- ASHM: PrEP decision-making tool racgp.link/3MNLyJd
- ASHM: REACH-C – prescribing medications for hepatitis C. The online REACH-C form provides a time-effective option to receive specialist approval within 24 hours racgp.link/3TyXgLP
- ASHM: Decision making in hepatitis B racgp.link/3XM1lhW
- ASHM: Decision making in hepatitis C racgp.link/3XKoKR1

Contact tracing resources

- Contact tracing for Aboriginal and Torres Strait Islander people racgp.link/3zopPo6
- MSM racgp.link/4dcke2j

Patient resources

- Better to Know – a sexual health resource for Aboriginal and Torres Strait Islander people racgp.link/3XLeg3P
- PrEP factsheet racgp.link/4dgxjax
- Take Blaktion racgp.link/4daLzSp
- Yarnin' About Hep C resource racgp.link/3NaicoR
- Us Mob and HIV – useful information on HIV and specifically for Aboriginal and Torres Strait Islander people racgp.link/4ejEsIs
- Young Deadly Free – a one-stop shop for resources about STIs and BBVs affecting young people in regional and remote Aboriginal and Torres Strait Islander communities racgp.link/47uNHmE

Other resources for health professionals

- Patient-delivered partner therapy racgp.link/4gx45HE
- ASHM training, including information on s100 prescribing for hepatitis B virus and HIV racgp.link/3zzzvfw

Reporting abuse

- Australian Institute of Family Studies information racgp.link/3XthGHc
- Contact details by State and Territory jurisdiction racgp.link/3XChZQ6

Box 1. People to offer hepatitis C virus (HCV) testing to as part of testing for sexually transmissible infections

- Those with a history of injecting drug use
- Those with a history of incarceration
- Those who have had anal sex with a partner infected with HCV
- Those with non-professional tattoos or body piercings
- Those with a history of HIV PrEP use
- People living with HIV
- Those who received organs or blood products before 1990

Box 2. Groups to target for hepatitis B vaccination

- All infants
- Aboriginal and Torres Strait Islander people who are not immune (HBsAg negative) and have no history of a completed course of hepatitis B vaccination
- Immunocompromised people:
  - people with HIV
  - people with severely impaired renal function
  - people requiring dialysis
  - before solid organ transplantation
  - after haemopoietic stem cell transplant
- People with medical risk factors:
  - people with hepatitis C
  - people with chronic liver disease
  - preterm and low-birthweight infants
  - people who receive blood products
  - people with developmental disabilities
- People whose occupation increases their risk of acquiring hepatitis B:
  - healthcare workers
  - police, members of the armed forces, emergency services staff and staff of correctional facilities
  - staff of facilities caring for people with developmental disabilities
  - funeral worker and embalmers
  - tattooists and body-piercers
- Travellers to hepatitis B-endemic areas who may be at increased risk
- People whose circumstances increase their risk of acquiring hepatitis B:
  - infants born to mothers who are hepatitis B surface antigen-positive
  - household or other close contacts of people with hepatitis B
  - sexual contacts of people with hepatitis B
  - men who have sex with men
  - migrants from hepatitis B-endemic countries
  - people who inject drugs
  - inmates of correctional facilities
  - sex industry workers

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Chapter 14: Respiratory health

Asthma

Professor Anne B Chang, Associate Professor Julie Marchant, Associate Professor Andre Schultz

Key messages

- The most important and modifiable risk factor to prevent asthma is reducing both in utero and childhood environmental tobacco smoke (ETS) exposure.[1]
- Asthma is more common among Aboriginal and Torres Strait Islander people and they have poorer outcomes compared with other Australians.[2,3]
- The initial step in primary care is to establish whether the patient has asthma, another respiratory condition or both because management is specific to each condition.[4]
- Whenever possible, the diagnosis of asthma should be objectively confirmed by lung function tests.[1]
- Effective asthma management resulting in good asthma control supports health and wellbeing and reduces exacerbations, hospitalisations and death (secondary prevention).[1,5]
- Effective management, using age-appropriate clinical practice guidelines, includes effective education, an asthma management plan and a stepwise approach in the use of classes, devices and doses of asthma medications.

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Immunisation				
All people aged 6 months and older	Recommend influenza vaccination	Yearly	Strong	International guideline[1]
All people aged 5 years and over	Recommend COVID-19 vaccination	As per Australian Technical Advisory Group on Immunisation guidelines	Strong	International guideline[1]
Preventive activity: Screening				
All people	Do not routinely screen for asthma Early detection strategies should be considered, especially in people with allergy and eczema	As clinically indicated	Good practice point	International guideline[1]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
Workers in high-risk workplaces, where exposure to occupational dusts and chemicals are likely	Ask about respiratory symptoms Discuss health implications of occupational exposure and, if necessary, seek advice from occupational health physician Recommend avoiding exposure to the occupational hazard and the use of appropriate respiratory protective equipment	Opportunistically and as part of occupational and annual health checks	Strong	International guideline[1] Review articles[6,7]
Preventive activity: Behavioural				
Pregnant women	Do not recommend maternal dietary restrictions during breastfeeding or pregnancy for the prevention of asthma	N/A	Good practice point	International guideline[1]
Lactating mothers and children commencing solids	Encourage breastfeeding and do not delay the introduction of solids	Opportunistically	Good practice point	International guideline[1]
Mothers and babies	Do not recommend dietary supplements for the prevention of asthma	N/A	Good practice point	International guideline[1]
Adults with psychosocial stress	Address psychosocial stress	Opportunistically, as clinically indicated	Good practice point	International guideline[1]
People with overweight and obesity	Advise weight loss as per clinical guidelines (see Chapter 15: Overweight and obesity)	Opportunistically, as clinically indicated	Strong	International guideline[1]
Pregnant women and all people who smoke	Advise and assist pregnant women to avoid smoking and second-hand smoke exposure (see Chapter 5: Preconception and pregnancy care) Advise parents/carers who smoke about the harms of ETS and the need to avoid childhood exposure, particularly in confined spaces (eg homes and motor vehicles; see Chapter 2: Healthy living and health risks, Smoking)	Opportunistically, as clinically indicated	Strong	International guideline[1] Systematic review[8]
People with or at risk of asthma who are current smokers	Provide smoking cessation advice to smokers (see Chapter 2: Healthy living and health risks, Smoking)	Opportunistically	Strong	International guideline[1]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medications				
Children at risk of asthma (see Box 1)	Do not prescribe immunotherapy or inhaled corticosteroids for the primary prevention of asthma	N/A	Strong	International guideline[1] National guideline[5] Randomised controlled trials (RCTs)[9,10]
Children and adults with asthma, including pregnant women	Assess whether asthma therapies are indicated and optimise asthma control (see Clinical guidelines in Useful resources) Check asthma devices and techniques, the availability of an asthma management plan and culturally appropriate health education	Opportunistically	Strong	International guideline[1] National guideline[5]
Preventive activity: Environmental				
Children and adults at risk of exposure to second-hand tobacco smoke	Recommend strategies to promote a smoke-free environment	Opportunistically	Strong	International guideline[1] Aboriginal and Torres Strait islander-specific studies[3,11]
People with or at risk of asthma	Advise families that interventions to reduce exposure to air-borne allergens (eg house dust mites) or pets do not prevent asthma or improve outcomes for people with asthma	Opportunistically	Strong	International guideline[1]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Environmental (continued)				
Health services and practices in settings where environmental and living conditions have strong contributions (environmental attribution) to communicable disease transmission and other conditions such as asthma	Know about diseases with a high environmental attribution Develop a safe clinical relationship in order to ask sensitively about housing and living conditions (inadequate housing facilities; access to affordable and reliable energy supply for refrigeration and air conditioning; access to health hardware, such as working plumbing for clean drinking water and washing facilities; access to hygiene; and sanitation supplies) Know about local arrangements for environmental health referral Offer an environmental health referral according to local arrangements, ensuring consent is obtained when a home visit is involved Advocate with Aboriginal and Torres Strait Islander leaders for adequate housing, an affordable and clean energy supply, facilities for washing and general living conditions Provide community-based health promotion about environmentally attributable diseases **Check local guidelines**	Opportunistically, in response to any diagnosis or condition with an environmental attribution and as part of general healthcare	Good practice point	International and Aboriginal and Torres Strait Islander-specific narrative reviews[12,13]

Box 1. Risk factors for asthma[1,7,14,15]

- Family history (particularly maternal) of asthma and allergies
- Past history of atopy and food allergies in early life
- Obesity
- Low birth weight
- In utero tobacco exposure, tobacco smoking, environmental tobacco smoke
- Environmental pollution
- Work-related exposures

Implementation tips

- Establish recall and reminder systems to support the follow-up of those with asthma.
- Use asthma action plans to support an organised approach to asthma management.
- Check asthma control using an asthma control questionnaire (refer to Useful resources).
- Check medication adherence, puffer and spacer techniques and environmental exposure.
- Conduct clinical audits to support quality assurance and improvement (eg people with an asthma action plan, smoking status documented for people with asthma).
- Ensure the availability of spirometry and trained personnel.

Useful resources

Clinical guidelines

- Global Initiative for Asthma (GINA) racgp.link/4epDmLH
- National Asthma Council: Australian asthma handbook, version 2.2, April 2022 racgp.link/3Bc4pv1
- *Australian asthma handbook* section specific to Aboriginal and Torres Strait Islander peoples racgp.link/3TCjQDf
- Lung Foundation Australia: Accredited modules on lung health in First Nations children, including asthma diagnosis and interpretation of spirometry racgp.link/3XNNOGS

Tools

- Asthma control questionnaire racgp.link/4gy3Ag9
- Asthma action plans racgp.link/3XR02i3

Patient resources

- For asthma in adults racgp.link/3Bf3VVa
- For asthma in children racgp.link/47y2Bsh
- Lung Health for Kids mobile app racgp.link/47y2Bsh

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Chapter 14: Respiratory health

Chronic obstructive pulmonary disease

Dr Sarah Cush

Key messages

- Chronic obstructive pulmonary disease (COPD) is a significant burden on the Aboriginal and Torres Strait Islander population.[1,2]
- Smoking is the single greatest cause of high rates of respiratory disease, including COPD, in the Aboriginal and Torres Strait Islander population.
- Smoking prevention and cessation programs could significantly reduce COPD incidence, morbidity and mortality for Aboriginal and Torres Strait Islander people.
- Targeted screening tools for COPD include formal questionnaires and simple lung function testing devices. Positive results from any method should be followed with diagnostic spirometry.
- Early detection and management, as per COPD-X (**C**ase finding and confirm diagnosis; **O**ptimise function; **P**revent deterioration; **D**evelop a plan of care; Manage e**X**acerbations) clinical guidelines, are key in optimising health and wellbeing and reducing mortality for people with COPD.[3]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Immunisation				
People with an established diagnosis of COPD	Encourage vaccination against: • influenza • pneumococcus • COVID-19	As per National Immunisation Program	Strong	National and international guidelines[3,4]
Preventive activity: Screening				
People aged over 35 years who currently smoke or are ex-smokers	Check for symptoms of COPD as part of a targeted, active case-finding approach	Opportunistically	Strong	National guideline[3]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
All adults with symptoms, especially shortness of breath, chronic bronchitis (cough and sputum) and recurrent acute bronchitis	Consider the use of a symptom questionnaire to help with case finding (refer to Useful resources) If symptoms of COPD are present, spirometry is indicated to determine the presence of airflow obstruction and to assess its severity	As clinically indicated	Strong	National guideline[3]
Healthy adults who do not report respiratory symptoms	**Do not** routinely use spirometry to screen healthy adults without symptoms	N/A	Strong	National guideline[3]
Preventive activity: Behavioural				
All people	Advise of the importance of not smoking to prevent COPD (see Chapter 2: Healthy living and health risks, Smoking)	Opportunistically	Strong	National and international guidelines[5,6] Aboriginal and Torres Strait Islander-specific evidence[7]
People who currently smoke	Offer counselling and treatment for nicotine dependence to all people who smoke (see Chapter 2: Healthy living and health risks, Smoking)	Opportunistically	Strong	National and international guidelines[3,4,8,9]
People with an established diagnosis of COPD who currently smoke	Offer counselling and treatment for nicotine dependence to all people who smoke, regardless of the degree of airflow obstruction (see Chapter 2: Healthy living and health risks, Smoking)	Opportunistically and at regular review	Strong	National and international guidelines[3,4,8]
People with an established diagnosis of COPD	Offer referral to pulmonary rehabilitation when available Access to and the safety of pulmonary rehabilitation programs need to be considered for each individual	As clinically indicated	Strong	National and international guidelines[3,4]
Preventive activity: Medication				
People with an established diagnosis of COPD	Implement Stepwise management plan as per COPD-X guidelines (see Useful resources) Ensure the correct use of devices at each visit	As clinically indicated	Strong	National guideline[3]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medication (continued)				
People with an established diagnosis of COPD	Develop a COPD action plan, including the management of exacerbations (see Useful resources)	As clinically indicated	Strong	National guideline[3]
Preventive activity: Environmental				
All people	Discuss risk factors for COPD (eg occupational exposures, environmental tobacco smoke and indoor and outdoor air pollution and irritants)	Opportunistically	Conditional	National guideline[3]

Implementation tips

- Each client contact should include questions around smoking status and a brief intervention encouraging smoking cessation at the time, as appropriate.
- Risk factors and symptoms can be explored opportunistically or systematically through health checks or recalls.
- Provide clear health promotion messages through posters, flyers and during community events.
- Onsite spirometry with appropriately trained Aboriginal and Torres Strait Islander health practitioners/heath workers could increase the uptake of the test and enable earlier diagnosis of COPD.
- Use recalls to identify those at risk of COPD (age over 35 years and smoking/past history of smoking) and invite them to complete the Lung Foundation questionnaire, or post out the Indigenous Lung Health Checklist (see Useful resources). Offer spirometry for diagnosis.
- A clinical audit could include up-to-date recording of smoking status or a review of people with a recorded diagnosis of COPD as a medical history item to ensure spirometry has been performed to confirm diagnosis and that medication use is appropriate.

Useful resources

Clinical guidelines

- Australian and New Zealand guidelines for the management of COPD-X racgp.link/3ZpaKxj
- Global Initiative for Chronic Obstructive Lung Disease racgp.link/3MPg3hR

Assessment tools

- Lung Foundation Australia: Indigenous Lung Health Checklist racgp.link/3MULNCc
- Lung Foundation Australia: pulmonary rehabilitation toolkit racgp.link/3XuxR6Y

Spirometry: online and face-to-face training and tools

- racgp.link/4e4Nd9i
- racgp.link/4e6A6EN
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Chapter 14: Respiratory health

Bronchiectasis and chronic suppurative lung disease

Professor Anne B Chang, Ms Lesley A Versteegh, Dr Pamela Laird

Key messages

- Bronchiectasis is a significant health issue for Aboriginal and Torres Strait Islander children and adults, with high prevalence and poorer outcomes compared with non-Indigenous Australians.
- Bronchiectasis was historically defined as irreversible airway dilatation based on high-resolution computed tomography (HRCT) chest scans. Bronchiectasis is now defined as a clinical syndrome with radiological evidence of abnormally dilated airways.[1–3]
- Bronchiectasis can be prevented by prevention and comprehensive treatment of severe and recurrent respiratory infection in children and adults.
- Other chronic respiratory diseases and comorbidities overlap with bronchiectasis and these should be diagnosed and treated appropriately.[2,3]
- Early diagnosis and effective management support health and wellbeing and reduce exacerbations, hospitalisations and death. In children, effective management can reverse radiological bronchiectasis.[1]
- Effective management includes effective education, using age-appropriate airway clearance techniques, regular clinical review, monitoring of lower airway bacteria, rehabilitation (when appropriate) and having a bronchiectasis management plan with good communication between primary, secondary and tertiary care.

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Immunisation				
All children and adults, including pregnant women	Ensure timely immunisation is provided, including COVID-19, pneumococcal and annual influenza vaccine	As per the Australian immunisation handbook[4] and state and territory schedules	Strong	National guideline[4]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
People with pneumonia and acute lower respiratory infections (ALRIs), particularly following hospitalisation	Review the patient after the ALRI episode to determine presence of respiratory symptoms/signs If wet or productive cough[A] is present: • consider the diagnosis of bronchiectasis/ chronic suppurative lung disease (CSLD)[B] • Recommence antibiotics and undertake investigations as per management guidelines (refer to Useful resources) • Assess for need to refer to a respiratory specialist (Box 1)	Three to four weeks after the episode, then every two weeks until symptoms resolve or referral to a respiratory specialist is made	Strong	Single studies[5–7] Systematic review and guideline[8–10]
People with recurrent ALRIs (in children, two or more episodes of hospitalised, chest-X-ray-proven pneumonia ever) and/or with persistent (more than four weeks) wet cough[B]	Consider a diagnosis of bronchiectasis. Repeat a chest X-ray to ensure resolution of chest X-ray changes Refer children to a specialist if there is persistent wet cough and/or abnormal chest X-ray (Box 1)	As clinically indicated	Strong	Guidelines and single studies[5,7,11]
People with a history of tuberculosis	Assess for chronic lung disease symptoms[C] and undertake spirometry	As clinically indicated	Strong	Single studies[12,13]
Adults with chronic obstructive pulmonary disease (COPD)	Undertake spirometry Assess for bronchiectasis symptoms and consider referral to a specialist if: • there is a history of daily sputum production • sputum has persistent infection, especially with Pseudomonas aeruginosa • there are increasing exacerbations • there is lung function decline • there are two or more exacerbations per year (Refer to Chapter 14: Respiratory health, Chronic obstructive pulmonary disease).	As clinically indicated	Strong	National guideline[11]
All children and adults	Ask about the presence of chronic wet or productive cough (more than four weeks in children[17] and more than eight weeks in adults[18])	Opportunistically	Conditional	International position statement and guidelines[2,1,14]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural				
Pregnant and lactating women	Promote and encourage breastfeeding	During antenatal and postnatal care	Strong	Guideline and single study[5,11]
All children and adults	Promote adequate nutrition, including vitamin D (See Chapter 2: Healthy living and health risks, Healthy eating)	Opportunistically	Good practice point	Guideline and single study[15,16]
People with CSLD or known bronchiectasis	Monitor to assess cough severity, quality of life and exacerbating frequency and factors Undertake regular review to prevent and manage complications and comorbidities (Box 2) Refer if symptoms are deteriorating	Three-monthly review Six-monthly specialist review	Good practice point	National guidelines[2,3,11,17]
Infants at risk of exposure to tobacco smoke both in utero and in the postnatal period	Advise and assist pregnant women to avoid smoking (refer to Chapter 5: Preconception and pregnancy care, Pregnancy care Advise parents/carers who smoke about the harms of second-hand tobacco smoke and the need to avoid childhood exposure, particularly in confined spaces, such as homes and motor vehicles (refer to Chapter 2: Healthy living and health risks, Smoking)	As clinically indicated	Strong	National guidelines[2,3,11]
Teenagers and adults who smoke or vape	Advise and assist smoking cessation, including e-cigarettes and cannabis (refer to Chapter 2: Healthy living and health risks, Smoking)	Opportunistically	Strong	National guidelines[18,19]
Preventive activity: Medications				
People with CSLD or known bronchiectasis	Consider maintenance antibiotics after discussion with the person's specialist	As per clinical practice guidelines[2,3,20]	Strong	Meta-analysis and randomised controlled trials[21,22]
People with CSLD or known bronchiectasis	Asthma-type medications in those with airway eosinophilia	As per clinical practice guidelines[2,3,20]	Good practice point	International guidelines[2,3,20]
Preventive activity: Environmental				
All children and adults	Promote avoidance of airborne pollutants, including traffic emissions, biomass smoke and other settings with poor air quality	Opportunistically	Good practice point	National guideline[11]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Environmental (continued)				
Health services and practices in settings where environmental and living conditions have a strong contribution (environmental attribution) to communicable disease transmission and other conditions such as bronchiectasis and CSLD	Know about diseases with a high environmental attribution Develop a safe clinical relationship in order to sensitively ask about housing and living conditions (inadequate housing facilities; access to affordable and reliable energy supply for refrigeration and air conditioning; access to health hardware, such as working plumbing for clean drinking water and washing facilities; access to hygiene; and sanitation supplies) Know about local arrangements for environmental health referral Offer an environmental health referral according to local arrangements, ensuring consent is obtained when a home visit is involved Advocate with Aboriginal and Torres Strait Islander leaders for adequate housing, affordable and clean energy supply, facilities for washing and general living conditions Provide community-based health promotion about environmentally attributable diseases **Check local guidelines**	Opportunistically, in response to any diagnosis or condition with an environmental attribution and as part of general healthcare	Good practice point	International and Aboriginal and Torres Strait Islander-specific narrative reviews[23,24]

[A]Cough is usually under-reported.[25,26]

[B]Children do not usually produce sputum; hence the term 'wet cough' (rather than 'productive cough') is used.[2]

[C]Bronchiectasis refers to symptoms of CSLD in the presence of HRCT chest scan findings of abnormal airway dilatation when clinically stable. CSLD is diagnosed when symptoms and/or signs of bronchiectasis are present without the availability of an HRCT to confirm bronchiectasis or, in children, without the HRCT features of bronchiectasis.[11] These symptoms and/or signs are recurrent (ie more than three episodes) wet or productive cough, each lasting for more than four weeks, with or without other features (eg exertional dyspnoea, symptoms of airway hyper-responsiveness, recurrent chest infections, haemoptysis, growth failure, digital clubbing, hyperinflation or chest wall deformity).[11]

Box 1. In children, triggers for referral to a specialist include one or more of the following:[1,11]

- Persistent wet cough not responding to four weeks of antibiotics
- More than three episodes of chronic (more than four weeks) wet cough per year responding to antibiotics
- A chest radiograph abnormality persisting more than six weeks after appropriate therapy
- Recurrent pneumonia (two or more episodes of chest-X-ray-proven pneumonia)

Box 2. Regular review[2,3]

Regular review consists of at least an annual review in adults and every six months in children. A multidisciplinary team is recommended. The review includes assessment of:

- severity, which includes oximetry and spirometry
- sputum culture (when available) for routine bacterial and annual mycobacterial culture
- management of possible complications and comorbidities, particularly for gastroesophageal reflux disease/aspiration, reactive airway disease/asthma, COPD, otorhinolaryngeal disorders, urinary incontinence, mental health and dental disease; less commonly, patients require assessments for sleep-disordered breathing and cardiac complications
- adherence to therapies and knowledge of disease processes and treatments.

Implementation tips

- Use culturally appropriate resources and information to support patient and community knowledge about bronchiectasis.
- Increase awareness of the importance of recognising and treating persistent wet or productive cough.
- Encourage staff training to increase knowledge and skills in preventing, recognising and managing bronchiectasis.

Useful resources

Clinical guidelines

- European Respiratory Society CRC for Bronchiectasis: Resources for bronchiectasis racgp.link/3B8AOCV
- Thoracic Society of Australia and New Zealand (TSANZ) position statement on chronic suppurative lung disease and bronchiectasis in children, adolescents and adults in Australia and New Zealand racgp.link/3Xwmk7l
- Menzies School of Health Research: Chronic suppurative lung disease/bronchiectasis (chronic lung sickness) flipchart racgp.link/3TwXDWU

Clinical resources and training

- National Health and Medical Research Council of Australia CRE (AusBREATHE) for Bronchiectasis/Menzies School of Health Research: Education for bronchiectasis and other resources, including mobile App racgp.link/3zI5mAL
- Australian Lung Foundation online training modules
  - Early detection of chronic wet cough racgp.link/3TCpdCq
  - Lung health in First Nations children racgp.link/4eaVecU
  - Inhaler device technique racgp.link/3XMhCDM
- Telethon Kids Institute: Wet cough resources, including flipcharts (with two Kimberley languages), animated film (with two Kimberley languages), posters and how to yarn flipchart racgp.link/3B6SH4J

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Chapter 15: Overweight and obesity

Mr Ray Kelly

Key messages

- Healthy eating, regular physical activity, avoiding prolonged sedentary activities and adequate sleep support a healthy weight.[1]
- A healthy diet primarily consists of fresh unprocessed foods, with traditional foods strongly encouraged.[1,2]
- Obesity is a chronic health condition and requires ongoing monitoring and support.
- Obesity is an independent risk factor for many cardiovascular, metabolic and other conditions.[3,4]
- Many chronic conditions begin at a lower body mass index (BMI) for Aboriginal and Torres Strait Islander people.[5,6]
- Waist circumference is a more sensitive measure of risk than BMI alone.[5]
- Weight loss strategies may include the use of traditional foods, a Mediterranean-type diet, carbohydrate reduction, calorie reduction through the use of low energy or very low energy formats, increased physical activity and/or pharmacotherapy.[4]
- Bariatric surgery might be considered for some people where other strategies have not been successful.[4]
- Weight stigma is a psychosocial contributor to obesity and can be a barrier to people accessing weight management and other healthcare.[4]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All people aged 2–18 years	Assess BMI using age and sex specific centile charts	Opportunistically	Good practice point	International guideline[7] Literature review[8]
All people aged 5–18 years	Assess waist circumference	Opportunistically	Good practice point	Consensus statement[9]
All people aged 18 years and older	Assess BMI and waist circumference (see Table 1)	Annually	Strong	National guideline[4] Consensus statement[9]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural				
All people aged 18 years and older	Provide advice to promote healthy eating and physical activity as per Australian guidelines (refer to Box 1 and Chapter 2: Healthy living and health risks, Physical activity and sedentary behaviour)	At least every two years	Strong	Australian guidelines[10,11]
All people	Encourage the intake of traditional foods or modern formats that replicate the more traditional reduction in carbohydrates and daily energy intake	Opportunistically	Good practice point	Cohort studies[12–14]
Adults with overweight/ obesity	Advise that weight loss, even as modest as 5%, has multiple health benefits, particularly in decreasing risks of cardiovascular, diabetes and kidney disease, during pregnancy, for brain health and for general fitness. These benefits compound more favourably when greater increments of weight loss are achieved	Opportunistically	Strong	National guideline[4]
Adults with overweight/ obesity	Develop an individualised weight management plan that includes: • targeted information as per Australian dietary guidelines (see Box 1) and The Australian Obesity Management Algorithm • goal setting • at least one follow-up consultation • an assessment of individual contextual and social factors that influence weight loss and maintenance (see Box 2) • individualised strategies to support weight loss or weight maintenance, including context-specific social and cultural supports (if necessary)	As clinically indicated	Conditional	National guideline[4] International guideline[15]
Adults with overweight/ obesity	Consider referral to allied health providers, such as an accredited practising dietician, exercise physiologist, lifestyle coach or an established commercial weight loss program to support the development of a weight management plan	As clinically indicated and when appropriate services are available	Good practice point	National guideline[4]
Adults with overweight/ obesity	Encourage regular self-weighing in most adults	As clinically indicated as part of a weight management plan	Good practice point	Systematic review[16]
Adults with overweight/ obesity	Encourage a net energy deficit of 2000–4000 kJ (480–960 kcal/day) if based on whole foods, or more if a supervised low-energy diet or very low-energy diet is being used	As clinically indicated as part of a weight management plan	Strong	National guidelines[4,17] International guidelines[15,17,18]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural (continued)				
All people with overweight/ obesity	Encourage regular physical activity	Opportunistically	Strong	National guideline[11]
Adults with overweight/ obesity	Consider individual or group-based psychological interventions[Δ] in combination with dietary and physical activity advice	As clinically indicated as part of a weight management plan	Good practice point	National guideline[19]
Children with overweight/ obesity	Involve parents/carers and families in all behavioural change	As clinically indicated	Good practice point	National guideline[19]
Children with overweight/ obesity	Develop a targeted weight management plan. This plan must involve at least one parent/carer and aim to change the whole family's lifestyle (see Useful resources)	As clinically indicated	Good practice point	National guideline[19]
Children with overweight/ obesity	Except in severe obesity, weight maintenance rather than weight loss is recommended for healthy growth and development	As clinically indicated as part of a weight management plan	Conditional	National guideline[20]
Children with overweight/ obesity	Consider referral for specialist review for children with severe obesity (BMI >40 kg/m^2)	As clinically indicated	Conditional	National guideline[4]
Preventive activity: Medications				
People aged 18 years and over with one or more weight-related comorbidities (severe mobility restriction, arthritis, type 2 diabetes) and a BMI equal to or greater than 28 kg/m^2	Assess, or make appropriate referral, for medication to support weight loss as part of a comprehensive obesity management plan (see Clinical guidelines)	As clinically indicated	Conditional	National guideline[4] Narrative review[21]
Preventive activity: Surgical				
People aged 18 years and over with one or more weight-related comorbidities (as above) and a BMI equal to or greater than 35 kg/m^2	Assess the risk/benefit of bariatric surgery on an individual basis in conjunction with behavioural changes and as part of a comprehensive specialist management program	As clinically indicated	Conditional	National guideline[22]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Environmental				
Primary care clinicians and practices	Advocate for multifactorial and coordinated community-based interventions to increase access to healthy and nutritious food (eg subsidised healthy food in stores)	Opportunistically	Good practice point	Systematic review and community-based studies[2,14,23–26]
Primary care clinicians and practices	Be familiar with services in your area that offer weight loss programs, such as allied health professionals, fitness centres and community groups	Opportunistically	Good practice point	Expert opinion

[Δ]Cognitive focused behavioural support includes:
- situational control and stimulus control, avoiding cues to overeating
- cognitive reframing and reinforcement techniques
- self-recording and monitoring of calorie intake and eating behaviours
- goal setting and relapse-prevention strategies
- social and emotional wellbeing holistic care.

Table 1. Combined measures to assess obesity and disease risk[A] in adults[27]

Classification	BMI (kg/m²)	Disease risk (relative to normal measures)	
		Waist circumference Men 94–102 cm Women 80–88 cm	Waist circumference Men >102 cm Women >88 cm
Underweight	<18.5	–	–
Healthy weight	18.5–24.9	–	Increased
Overweight	25.0–29.9	Increased	High
Obesity	30.0–39.9	High to very high	Very high
Severe obesity	>40	Extremely high	Extremely high

[A] Risk of type 2 diabetes, elevated blood pressure and cardiovascular disease. BMI, body mass index

Box 1. Australian dietary guidelines for Australian adults[10]

Guideline 1: To achieve and maintain a healthy weight, be physically active and choose amounts of nutritious food and drinks to meet your energy needs

- Children and adolescents should eat sufficient nutritious foods to grow and develop normally. They should be physically active every day and their growth should be checked regularly.
- Older people should eat nutritious foods and keep physically active to help maintain muscle strength and a healthy weight.

Guideline 2: Enjoy a wide variety of nutritious foods from these five food groups every day:

- Plenty of vegetables of different types and colours, and legumes/beans
- Fruit
- Grain (cereal) foods, mostly wholegrain and/or high cereal varieties, such as
- breads, cereals, rice, pasta, noodles, polenta, couscous, oats, quinoa and barley
- Lean meats and poultry, fish, eggs, tofu, nuts and seeds, and legumes/beans
- Milk, yoghurt, cheese and/or their alternatives, mostly reduced fat
- Choose store foods that are most like traditional bush foods[Δ]
- Enjoy traditional bush foods whenever possible[Δ]
- Drink plenty of water.

Guideline 3: Limit intake of foods containing saturated fat, added salt, added sugars and alcohol

- Limit intake of foods high in saturated fat, such as many biscuits, cakes, pastries, pies, processed meats, commercial burgers, pizza, fried foods, potato chips, crisps and other savoury snacks.
  - Replace high-fat foods that contain predominately saturated fats, such as butter, cream, cooking margarine, coconut and palm oil, with foods that contain predominately polyunsaturated and mon-ounsaturated fats, such as oils, spreads, nut butters/pastes and avocado.
  - Low fat diets are not suitable for children under the age of 2 years.
- Limit intake of foods and drinks containing added salt.
  - Read labels to choose lower-sodium options among similar foods.
  - Do not add salt to foods in cooking or at the table.
- Limit intake of foods and drinks containing added sugars, such as confectionary, sugar-sweetened soft drinks and cordials, fruit drinks, vitamin waters, energy and sports drinks.
- If you choose to drink alcohol, limit intake. For women who are pregnant, planning a pregnancy or breastfeeding, not drinking alcohol is the safest option.

Guideline 4: Encourage, support and promote breastfeeding

Guideline 5: Care for your food; prepare and store it safely

[Δ]Additional recommendations specific to some Aboriginal and Torres Strait Islander communi-ties.

Box 2. Social and contextual factors that influence disease prevention strategies

Disease prevention strategies for obesity and other lifestyle-related conditions need to be individualised and a person-centred approach should be adopted.

- Recognise that each person's context will be different and this will shape their readiness and capacity to make lifestyle changes. The capacity to make changes will be reduced if multiple comorbid conditions are present.
- Care plans incorporating weight loss recommendations should take the following factors into consideration and, where possible, implement local support services to address these factors:
  - social isolation
  - reduced health literacy
  - unemployment and financial constraints
  - access to recreational facilities
  - transport support
  - physical and economic access to healthy food (food security).
- Consider intersectoral approaches to influence the social determinants of overweight and obesity (eg partnerships with providers of recreational facilities, the establishment of men's and women's groups).

Implementation tips

- **Initiating discussion:** Discuss general health, such as nutrition and physical activity, when appropriate in appointments. A discussion about nutrition could be initiated by asking the patient whether they feel they are eating enough nutritious food, then highlighting the impact of healthy food choices on chronic diseases. Physical activity can be discussed by asking whether the patient participates in any structured exercise sessions each week, then highlighting the importance of daily physical activity. There can be many barriers to physical activity, so inform the patient that any movement is beneficial and that something as simple as a light walk can provide health benefits.
- **Stigma/attitudes:** Stigma is a psychosocial contributor to obesity[4,28] and can affect the uptake of exercise and other lifestyle and eating pattern changes. Your attitude towards the person with extra weight will determine how open they will be to help and support. Historically, people have had to endure the stigma that they are to blame for being overweight or obese,[4] are lazy or simply eat too much. However, there are many reasons a person may be carrying extra weight. It could be due to a health condition, or the medications provided for an illness. Many people also experience injuries as they age, and this can limit their ability to move and could restrict most physical activity.[29] In addition to the injury, a person could be experiencing chronic pain and mental duress. This, in turn, can affect sleep, energy and the quality and amount of food or alcohol intake. The stigma around weight may also be compounded by racism experienced by Aboriginal and Torres Strait Islander people.

  To improve health outcomes it is important to have a culture in your healthcare setting that takes a non-judgemental, people-first approach.[4]

- **Physical environment and equipment:** Make sure the clinical environment has appropriate equipment, including bariatric seating, and suitable weighing scales and blood pressure cuffs.
- **Reducing weight:** There are various formats to follow for weight loss; however, a critical component of success is ongoing support. Patients may not have support at home and, without it, long-term success with health goals is less likely.[2] Prior to referring to external programs, ensure a culturally safe environment and appropriate advice will be provided for the patient.

  Be familiar with services in your area that offer weight loss programs.

- **Physical activity and exercise:** It is important to have some form of physical activity each day, ideally at least 20–30 minutes per day to begin with, and steadily increasing the duration. Patients should be encouraged to participate in an activity they enjoy; however, walking is a great option because it does not require any special equipment and there is no added cost. Increasing activities of daily living, including household jobs like sweeping and vacuuming, can also increase daily calorie expenditure. In addition, encourage a reduction in sedentary behaviours, such as screen time and prolonged lying and sitting.
- **Mobility issues:** Mobility issues are most often due to foot, knee, hip or back injury. Once the issue is diagnosed and the patient is cleared for weight-bearing physical activity, walking is a great activity to start with. Ask the patient how long (in minutes) they could walk for before they feel they need to rest. Once a length of time is provided, ask them whether they could complete a specific time under that. For example, if they state they could walk for 15 minutes, ask whether they would be happy to start walking for 10 minutes at a time. Once a time period is agreed upon, ask the patient to complete that walk each day and try to increase it a little each week.
- **Aboriginal and Torres Strait Islander health workers and health practitioners:** Aboriginal and Torres Strait Islander health workers provide an integral service by improving health outcomes by breaking down communication and cultural barriers between Aboriginal and non-Indigenous health staff, and making the patient feel more comfortable within the healthcare setting.[30,31] They also have a range of skills that can help in the provision of healthcare, particularly in assisting with annual health checks.[1]
- **Allied health:** To help achieve health goals, referral to an allied health professional is a viable option, including an exercise physiologist or physiotherapist for physical activity, a dietician for eating plans and a podiatrist or physiotherapist for pain and mobility issues. Programs and services provided by other health professionals may be considered based on their engagement with the Aboriginal and Torres Strait Islander community and history of success in providing improved health outcomes. Always try to find allied health professionals who have a strong history of achieving good health outcomes with Aboriginal and Torres Strait Islander people.
- **Technology:** Personal movement monitors can provide motivation for patients to increase their physical activity levels. The most common brands are Fitbit, Garmin and Apple, but most smartphones have an activity tracker in their Health app.[32] Just be mindful that accuracy and reliability can vary and that these devices are best used as motivational tools rather than objective measurement devices.[33]
- **Staff training:** Training can include healthy living principles (diet, physical activity, sleep) and the prevention and management of obesity, including effective behaviour change and how to minimise stigma. Often behaviour change is centred on the patient; however, the health professional must work with the patient to find strategies they feel they can implement and ensure that the patient understands what needs to be done. Staff must also have a good understanding of the local Aboriginal and Torres Strait Islander culture. Each community will be different and, if trust with the patient is to be achieved, understanding and respecting their culture is essential.
- **Recalls and reminders:** Many in the Aboriginal and Torres Strait Islander community have additional responsibilities to family and community and may need reminding of check-ups and appointments. A simple way of doing this is with automated emails, text messages and the use of messaging services through social media.[34]
- **Health promotion:** Providing health promotion activities outside of the medical centre can provide a culturally safe way of engaging with the community, especially those not currently engaged with the health staff. This could be at school or at sporting or cultural events.
- **Service/practice level:** Providing annual health checks, reviews and usual cycles of care can provide opportunities to identify heath issues early before additional comorbidities occur.

Useful resources

Clinical guidelines

- The Australian Obesity Management Algorithm: A simple tool to guide the management of obesity in primary care (journal article) racgp.link/3XRbo4r
- *Clinical practice guidelines for the management of overweight and obesity in adults, adolescents and children in Australia* racgp.link/3TtXpjh

Other resources for health professionals

- CDC growth charts racgp.link/4dk9eju
- World Health Organization (WHO) BMI charts for children
  - under 5 years: racgp.link/3XxXhjZ
  - 5–19 years: racgp.link/3XZ3EyB
- The Obesity Collective: training and other resources for health professionals racgp.link/3XZ3Huh
- Chronic disease support for Aboriginal and Torres Strait Islander people racgp.link/4dc1rnH

Health promotion

- Dietary guidelines for adults brochure racgp.link/3XPbuL4
- Dietary guidelines for children brochure racgp.link/3TAbfkx
- Information about sugary drinks racgp.link/3TCqARA
- Indigenous Australian dietary guidelines poster racgp.link/3B73egp

General

- Apunipima Cape York Health Council: Food tips for being a healthy weight racgp.link/3B8FU1L
- Heart Foundation: *What is a healthy body weight?* racgp.link/3XN4IVZ
- Queensland Health: Overweight children racgp.link/4e9Tu3z
- NSW Government: Healthy kids resources for health professionals racgp.link/4etwT1w
- Lowitja Institute: *Deficit discourse and strength-based approaches: Changing the narrative of Aboriginal and Torres Strait Islander health and wellbeing* racgp.link/3XQw5yB

Patient resources

- Free Get Healthy telephone coaching services for residents in New South Wales and South Australia
  - New South Wales racgp.link/3XN9AKC
  - South Australia racgp.link/3XNKyen
- Programs available in different states
  - Live Lighter: racgp.link/3XNguQ4
  - Victoria: Healthy eating programs and services racgp.link/3XOHrmI
  - Tasmania: Healthy Tasmania racgp.link/3ZuwEz1
  - Queensland: Healthier. Happier website racgp.link/3B6U9nH

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Chapter 16: Cardiovascular disease

Dr Rosemary Wyber, Ms Vicki Wade

Key messages

- Cardiovascular healthcare encompasses a broad range of strategies aimed at holistic care and strengthening and building community capacity.
- There are effective ways to reduce cardiovascular disease (CVD) risk. Supporting people who are at high risk is an important way to improve the cardiovascular health of Aboriginal and Torres Strait Islander people.
- Assessing and reducing CVD risk is a lifelong process. New guidance about assessing and managing risk for young people (aged 18–29 years) helps provide a foundation for these discussions and decisions in early adulthood.[1]
- New Australian guidelines for assessing and managing CVD risk were launched in 2023. These include a new CVD risk calculator with more variables to help better assess CVD risk and new categories of CVD risk (ie high risk (≥10% risk over five years), intermediate risk (5% to <10% risk over five years) and low risk (<5% risk over five years).[2]
- Services using the CARPA *Standard treatment manual* should continue to use the CVD risk calculator in that guideline.[3]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
People aged 12–17 years	Assess CVD risk factors by: • asking about: – smoking – family history of hypercholesterolaemia • measuring: – body mass index (BMI) – waist circumference • testing, only if clinically indicated: – blood sugar level or HbA1c (see Chapter 17: Type 2 diabetes) – BP, eGFR and uACR (see Chapter 6: Child health, Childhood kidney disease) – lipids	Opportunistically	Good practice point	Aboriginal and Torres Strait Islander-specific consensus statement[1]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
People aged 18–29 years	Assess for high-risk conditions: • previous CVD diagnosis • moderate–severe chronic kidney disease[Δ] • familial hypercholesterolaemia If not already high risk, assess individual risk factors by: • asking about: – smoking – family history of hypercholesterolaemia – history of hypertensive disorders in pregnancy and gestational diabetes • measuring: – BMI – waist circumference – BP • testing: – BSL or HbA1c – estimated glomerular filtration rate (eGFR) – lipids – urinary albumin:creatine ratio (uACR)	Opportunistically and as per level of risk	Good practice point	Aboriginal and Torres Strait Islander-specific consensus statement[1]
People aged 30–79 years	Assess for high-risk conditions (moderate–severe chronic kidney disease[Δ] and familial hypercholesterolaemia) If not high risk, apply the CVD risk algorithm to quantify risk, considering: • age • sex • systolic blood pressure • total cholesterol: high-density lipoprotein ratio • diabetes status • use of CVD medicines • post code • history of atrial fibrillation (AF) and, for people with diabetes: • HbA1c • time since diabetes diagnosis • uACR • eGFR • BMI • use of insulin Then, consider reclassification factors (see Boxes 1 and 2): • ethnicity • family history • eGFR and uACR • severe mental illness • coronary artery calcium (CAC)	Opportunistically and as per level of risk	Strong	National guideline[2]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
People aged 18–74 years not already identified at high risk attending health services using the CARPA *Standard treatment manual*	Assess CVD risk using the risk calculator as per CARPA guidelines	Annually, as per CARPA guidelines	Strong	Jurisdictional guideline[3] Single study[4]
People aged over 50 years	Screen for AF by palpation of the pulse followed by full electrocardiogram (ECG) or ECG rhythm strip using a hand-held ECG when further assessment is indicated	Opportunistically and annually	Good practice point	National guideline[5] Single study[6]
Preventive activity: Behavioural				
All people, regardless of CVD risk	Advise on behavioural approaches to risk reduction: • smoking cessation • physical activity • maintain 'healthy' BMI and waist circumference • avoid harmful levels of alcohol • limit salt intake to less than one teaspoon a day • cultural, community and family connections (Refer to Chapter 2: Healthy living and health risks, Healthy eating, Physical activity and sedentary behaviour, Smoking and Alcohol)	Opportunistically	Good practice point	National guidelines[2,5,7]
People with intermediate or high CVD risk	Provide or refer for intensive supports to reduce CVD risks	As clinically indicated	Good practice point	National guideline[2]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medication				
People aged 18–29 years with isolated risk factors	Make a subjective assessment of overall CVD risk, discuss this assessment and make a shared decision about reducing this risk with behaviour change and medication to address specific risk factors, such as blood pressure and lipids	Opportunistically	Good practice point	Aboriginal and Torres Strait Islander-specific consensus statement[1]
People aged over 30 years and with low (less than 5%) CVD risk	Medication is not routinely recommended	N/A	Conditional	National guideline[2]
People with intermediate CVD risk (between 5% and 10%)	Consider blood pressure-lowering and lipid-modifying pharmacotherapy, depending on clinical context, unless contraindicated or clinically inappropriate	As clinically indicated	Conditional	National guideline[2]
People with high CVD risk (greater than or equal to 10%)	Prescribe blood pressure-lowering and lipid-modifying medication, unless contraindicated or clinically inappropriate	Ongoing	Strong	National guideline[2]
People diagnosed with AF	Explore the cause of AF and manage rate and rhythm control Assess and manage CVD risk, using the CHA2DS2-VA score to assess the risk of stroke and considering anticoagulation	As per AF management guidelines	Strong	National guideline[5]
Preventive activity: Environmental				
All people	Consider temperature extremes, air pollution and other extreme weather events as stressors for CVD risks and events (refer to Chapter 21: Health impacts of climate change)	Opportunistically	Good practice point	Single studies[8,9]

[A]Moderate–severe renal disease is defined as a sustained eGFR of <45 mL/min/1.73 m2 and persistent macroalbuminuria (uACR >25 mg/mmol in men and uACR >35 mg/mmol in

Box 1. Cardiovascular disease (CVD) reclassification factors and considerations

Reclassification factors should be considered in holistic risk assessment and may change the classification of risk when people lie close to the threshold between different risk levels. Specifically, consider:

- **Ethnicity**
  Aboriginal and Torres Strait Islander people may be reclassified into a higher risk factor to account for individual, family or community contexts that increase the risks of CVD (eg exposure to racism, socioeconomic marginalisation and stress/trauma/allostatic load, health beliefs based on culture[10]).
- **Family history**
  For people who have a strong family history (parents and siblings) of stroke and heart attack at a young age (first-degree female relative aged under 65 years or a first-degree male relative aged under 55 years), consider adjusting the person's estimated CVD risk upwards to the next risk level.
- **Chronic kidney disease**
  For people who do not have diabetes but have a sustained eGFR of 45–59 mL/min/1.73 m^2 and/or persistent microalbuminuria (uACR 2.5–25 mg/mmol in men and 3.5–35 mg/mmol in women), strongly consider adjusting the estimated CVD risk upwards to a higher risk level.
- **Severe mental illness**
  People with severe mental illness, or high levels of psychological distress, may be considered at a higher category of CVD risk. Severe mental illness is defined as 'illness requiring specialist mental health services in the 5 years, whether received or not, prior to the index CVD risk assessment'.[2] Clinicians should consider recommended screening for mental illness (refer to Chapter 20: Mental health) and be aware of gaps in access to culturally safe services that would allow for diagnosis or referral for psychological distress and/or serious mental health illness when considering this factor.
- **Coronary artery calcium (CAC)**
  The CAC score is not recommended for population screening for CVD risk and does not attract a Medicare Benefit Schedule rebate.
- **History of hypertensive disorders during pregnancy**
  Women who have had high blood pressure or pre-eclampsia during pregnancy are at increased risk of ongoing or subsequent high blood pressure.

Box 2. Other factors influencing cardiovascular disease (CVD) risk

A range of factors that may decrease or increase CVD risk, risk factors and/or events for Aboriginal and Torres Strait Islander people have been explored in research studies.

Potential risk-increasing biomedical factors are broad (high sleep disruption,[11] high waist circumference,[12,13] low high-density lipoprotein cholesterol[14] and low vitamin D[15]), as are social determinants (high exposure to temperature extremes,[8] low socioeconomic status,[16] high exposure to air pollution[9] and hazardous use of alcohol[17]).

Protective factors are less well described for CVD risk, but there are broad associations between cultural identity, family/community, Country and place and the health and wellbeing outcomes of Aboriginal and Torres Strait Islander people.[10,18] Other biomedical factors that are protective, or likely to be protective, against CVD include regular physical activity, nutritious diet and good sleep.

None of these factors is included in the current risk assessment algorithm. Some do not add value in discriminating beyond 'traditional' CVD risk factors and for others the evidence is not sufficiently well developed to include them. However, the development of clinical risk prediction tools necessarily occurs at a population level and may not fully account for specific risks with a disproportionate burden on specific communities, such as Aboriginal and Torres Strait Islander people.

The use of reclassification factors in the Australian CVD risk assessment guidelines provides a new way for clinicians to account for some of these risk/protective factors and combine quantitative risk assessment with real-world context.

Implementation tips

- Systems for annual CVD risk assessment and screening for AF (age >50 years) should be supported through clinical software (including reminders and embedded with health check templates).
- Aboriginal and Torres Strait Islander health practitioners and health workers can contribute to CVD risk assessment, including through discussing clinical history, calculating risk and contributing to shared decisions about risk reduction.[19]
- Clinicians should be aware that the updated guidelines[2] recommend annual discussion of CVD risk lifelong from the age of 12 years. Although this provides many opportunities for engagement, education and risk reduction, there is a risk that the discussion becomes repetitive and may not always be appropriate in the context of competing health or life priorities.[10] Long-term relationships with trusted primary care services can help ensure that discussion of CVD risk is offered sensitively, at the right times and in conjunction with contextually relevant risk-reduction approaches.
- Make sure the CVD risk calculator being used is as per Australian guidelines published in 2023,[2] noting that some clinical software systems may have an out-of-date calculator. If in doubt, use the risk calculator on the internet (see Useful resources).

Useful resources

Clinical guidelines

- 2023 cardiovascular risk assessment guidelines (2023) racgp.link/3B74oIN
- 2020 consensus statement on CVD risk assessment for Aboriginal and Torres Strait Islander adults aged under 35 years doi: 10.5694/mja2.50529
- 2018 Australian AF guidelines racgp.link/4e6kh0Q
- 2018 Australian heart failure guidelines racgp.link/4eo8zPn
- National Heart Foundation of Australia and Cardiac Society of Australia and New Zealand: Australian clinical guidelines for the management of acute coronary syndromes (2016) racgp.link/4e6gZdL

Tools

- Discussing CVD risk. Heart health yarning tool racgp.link/3TA9fIT
- Finding Your Way shared decision making model racgp.link/3Xp2quR

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Chapter 17: Type 2 diabetes

Dr Justin Coleman

Key messages

- Type 2 diabetes can be prevented through healthy diet, regular physical activity and maintaining healthy weight.[1]
- Aboriginal and Torres Strait Islander peoples have almost three times the rate of type 2 diabetes than other Australians, with onset at an earlier age.[2]
- Primary care clinicians can help prevent type 2 diabetes by offering education and support for a healthy diet, physical activity and weight management; offering regular screening for diabetes from a young age; and advocating for prevention at a community level.
- Type 2 diabetes is relatively easy to diagnose and early management is associated with long-term benefits through the reversal of diabetes and the prevention or delay of diabetes-related complications.

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
Children/adolescents aged 10 years and over (or at the onset of puberty, whichever occurs first) with one or more of the following risk factors: • **overweight or obesity (body mass index* (BMI) ≥85th or ≥95th percentile, respectively, and/or waist circumference to height ratio >0.5)** • **maternal history of diabetes or gestational diabetes** • **first-degree relative with T2D** • **signs of insulin resistance (acanthosis nigricans)** • **other conditions associated with obesity and metabolic syndrome (eg dyslipidaemia, polycystic ovary syndrome)** • **use of psychotropic medication**	• Measure HbA1c using point-of-care testing as the preferred method for diagnosis; fasting blood glucose (FBG) is also acceptable • Perform an oral glucose tolerance test (OGTT) in those with equivocal HbA1c or FBG results	Opportunistically Repeat annually if HbA1c <5.7% Repeat in six months if HbA1c 5.7–6.4%	Strong	National guideline[3]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
All adults aged 18 years and overw	1. **Measure FBG or HbA1c**: A laboratory test is preferable, but fingerprick testing is an alternative. If FBG is impractical, perform a random (non-fasting) venous test, or measure HbA1c (which is not affected by fasting status) 2. **Perform an OGTT in those with equivocal results** (ie FBG 5.5–6.9 mmol/L or random glucose 5.5–11.0 mmol/L) Use World Health Organization (WHO)/International Diabetes Federation (IDF) criteria to diagnose T2D, impaired glucose tolerance (IGT) and impaired fasting glucose (IFG) (see Box 1) Given the higher prevalence of T2D in Aboriginal and Torres Strait Islander populations, blood testing rather than the AUSDRISK tool is recommended as the primary screening test	Opportunistically	Strong	National guideline[4]
All people aged 5–18 years	Measure waist circumference (refer to Chapter 15: Overweight and obesity)	Opportunistically	Strong	International consensus statement[5]
All people aged 18 years and older	Measure BMI and waist circumference (refer to Chapter 15: Overweight and obesity)	Opportunistically	Strong	National guideline and international consensus statement[5,6]
Preventive activity: Behavioural				
All people	Provide healthy living and health risk advice: advise a minimum of 30 minutes moderate-intensity activity on most days Encourage a diet rich in vegetables, fruits, legumes, high-fibre cereals, fish and lean meats Limit fats, salt, sugar, alcohol (refer to Chapter 2: Healthy living and health risks, Healthy eating and Physical activity and sedentary behaviour)	Opportunistically	Strong	National guideline[4]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural (continued)				
All mothers of infants	Encourage breastfeeding for at least six months	Discuss antenatally and postnatally	Strong	National guideline[7]
All people with a BMI greater than 40 kg/m² (or greater than 35 kg/m² if they already have T2D or other complications)	Recommend intensive dietary and physical activity modification as above; consider a very-low-energy diet Discuss the risks and benefits of bariatric surgery and consider referral if services are available (refer to Chapter 15: Overweight and obesity)	Opportunistically and as clinically indicated	Strong	National guidelines[4,6]
*BMI should be calculated using age- and gender-appropriate calculator/percentile growth charts.				

Implementation tips

- As part of initial screening, at every visit offer a random fingerpick blood sugar level to monitor blood glucose levels. This is a relatively non-invasive and accepted approach from the community (and is offered routinely in Aboriginal Community Controlled Health Services around the country) that may indicate the need for further investigation (eg fasting blood glucose).
- Provide healthy eating advice and resources to support the patient to make small changes to their diet to reduce weight. This may include providing access to culturally safe and affordable recipes to encourage self-management.

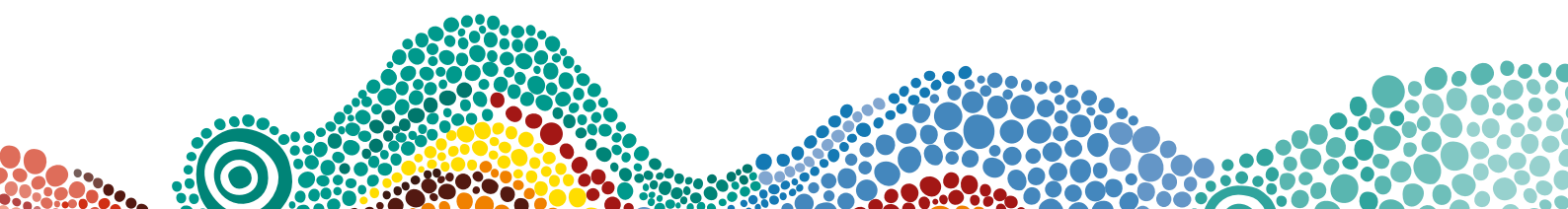
Useful resources

Clinical guidelines

- The Royal Australian College of General Practitioners (RACGP): *Management of type 2 diabetes: A handbook for general practice* (racgp.link/3ZwfDoi)
- Article in *Obesity Research & Clinical Practice*: The Australian obesity management algorithm: A simple tool to guide the management of obesity in primary care doi: 10.1016/j.orcp.2022.08.003

Community resources

- Diabetes Australia: Diabetes resources for Aboriginal and Torres Strait Islander people (racgp.link/3XNiBU0)
- Living Strong: Healthy lifestyle cookbook (racgp.link/4eqIm24)
- Foodbank WA: Deadly tucker and More *Deadly tucker recipe booklets* (racgp.link/4esUob9)



Box 1. Diagnosing type 2 diabetes[A]

Diabetes is diagnosed based on the presence of any of the following criteria:

- Fasting plasma glucose (FPG) ≥7.0 mmol/L
- Two-hour plasma glucose ≥11.1 mmol/L after 75-g oral glucose tolerance test
- HbA1c ≥6.5% (48 mmol/mol)
- Random plasma glucose ≥11.1 mmol/L in the presence of classical diabetes symptoms

[A]Adapted from the RACGP Management of type 2 diabetes: A handbook for general practice.[4]

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Chapter 18: Chronic kidney disease

Dr Mary Belfrage, Professor William Majoni

Key messages

- The detection and management of risk factors is critical for the prevention of chronic kidney disease (CKD).[1,2]
- Social and political determinants of health, such as poverty, living conditions and racism, contribute to CKD in Aboriginal and Torres Strait Islander populations.[1,3]
- Major modifiable risk factors in Aboriginal and Torres Strait Islander people are the same as those in non-Indigenous Australian people, including low birth weight, diabetes, hypertension, cardiovascular disease (CVD), obesity and smoking.[2]
- There are strong associations and compounding interactions between CKD, CVD and diabetes.
- Primary healthcare teams play a critical role in the prevention, early detection and management of risk factors for CKD and in the early detection and management of CKD.[2]
- Early detection of CKD and instituting effective evidence-based treatments prevent or slow progression and complications.[2]
- Shared decision making between clinicians and patients and supported self-management are central to effective care of people with CKD.[1]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
People aged less than 18 years	Screen for red flags and additional considerations of CKD (see Box 2) Complete kidney health check when concerned/ indicated (blood pressure, estimated glomerular filtration rate (eGFR), urine albumin:creatinine ratio (ACR))	At least annually	Strong	CARI guidelines[1]
People aged over 18 years without any CKD risk factors	Screen for red flags and additional considerations of CKD (see Box 2)	At least annually	Strong	CARI guidelines[1]
People aged 18 years or over	Complete kidney health check (blood pressure, eGFR, ACR) If ACR is raised, repeat once or twice over three months (first void specimens if possible)	At least annually	Strong	Aboriginal and Torres Strait Islander-specific guidelines[1]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural				
Adults with any risk factors for CKD	Offer individualised, structured education about healthy living and health risk behaviours: • Optimise mental health • Regular physical activity • Healthy eating • Healthy weight/weight loss • Smoking cessation	Opportunistically	Strong	Aboriginal and Torres Strait Islander-specific and national guidelines[1,2]
Adults with CKD Stages G1–G3 (see Box 1)	Offer individualised, structured education about healthy living and health risk behaviours: • Optimise mental health • Regular physical activity • Healthy eating • Healthy weight/weight loss • Smoking cessation • Safe alcohol guidelines	As part of clinical care plan	Strong	Aboriginal and Torres Strait Islander-specific and national guidelines[1,2]
Adults with CKD Stages G1–G3 (see Box 1)	Refer to secondary care **early** as per guidelines **Note lower thresholds for referral in Aboriginal and Torres Strait Islander population** (see Figure 1)	As clinically indicated	Strong	Aboriginal and Torres Strait Islander-specific and national guidelines[1,2]
Preventive activity: Medication				
All people with CKD	Regularly review medications to identify and avoid those with potential nephrotoxicity Advise patients taking an angiotensin-converting enzyme (ACE) inhibitor or angiotensin II receptor blocker (ARB) plus diuretic to avoid non-steroidal anti-inflammatory drugs (NSAIDs; other than low-dose aspirin if indicated) Advise patients which medications to avoid when acutely unwell or fasting (SAD MANS (**S**ulfonylureas; **A**CE inhibitors; **D**iuretics; **M**etformin; **A**RBs; **N**SAIDs; **S**odium–glucose cotransporter 2 inhibitors {SGLT2}); see Box 3)	Opportunistically and at every medication change	Good practice point	National guidelines[2,4]
All people with CKD	Follow clinical action plans and goals of treatment as per guidelines at all stages of CKD Work in partnership with patients to support self-management (eg diet, physical activity and self-monitoring of blood pressure (BP); note, target home systolic BP of 115 – 125 mmHg, if tolerated)	Ongoing clinical management	Strong	Aboriginal and Torres Strait Islander-specific and national guidelines[1,2]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medication (continued)				
Adults with albuminuria	Advise treatment with an ACE inhibitor or ARB, regardless of eGFR or BP level, but avoid symptomatic hypotension An ACE inhibitor and ARB should not normally be prescribed together (Note, target home systolic BP 115–125 mmHg if tolerated)	At diagnosis	Strong	National guidelines[2] International guideline update[5]
Adults with albuminuria	Advise minimising salt intake to <6 g per day	At diagnosis	Strong	National guidelines[2]
Adults with albuminuria	Advise treatment with SGLT2 inhibitor	As clinically indicated	Strong	International guideline update[5]
Adults with CKD and diabetes	Aim for optimal diabetes control, healthy weight, medications and clinical targets as per guidelines	Ongoing clinical management	Strong	National guidelines[2]
Adults with CKD and diabetes	Advise treatment with SGLT2 inhibitor regardless of HbA1c Consider non-steroidal mineralocorticoid receptor antagonists in addition to an ACE inhibitor/ARB and SGLT2 inhibitor if ACR is 200 mg/g (ie ≥23mg/mmol) despite maximum tolerated dose of ACE inhibitor/ARB Consider glucagon-like peptide-1 receptor agonist if not meeting glycaemic targets on first-line therapy	As clinically indicated	Strong	International guideline update[5]
Preventive activity: Environmental				
Communities with a high prevalence of scabies and pyoderma	Support the implementation of population-based strategies for the reduction of scabies and pyoderma among children (refer to Chapter 6: Child health, Childhood kidney disease and Chapter 12: Acute rheumatic fever and rheumatic heart disease) Support strategies to reduce socioeconomic disadvantage	Opportunistically	Strong	Narrative review and regional initiative[6,7]

Box 1. Classification of chronic kidney disease[2]

The colours indicate recommended clinical action plans in *Chronic kidney disease (CKD) management in primary care.*[2] Green indicates no CKD; yellow, orange and red indicate increasing severity of CKD.

		Albuminuria stage		
Kidney function stage	**GER (mL/min/1.73m?)**	**Normal (urine ACR mg/mmol) Male: <2.5 Female: <3.5**	**Microalbuminuria (urine ACR mg/mmol) Male: <2.5-25 Female: <3.5-35**	**Macroalbuminuria (urine ACR mg/mmol) Male: >25 Female: >35**
1	≥90	Not CKD unless haematuria, structural or pathological abnormalities present		
2	60-89			
3a	45-59			
3b	30-44			
4	15-29			
5	<15 or on dialysis			

Patients with CKD are classified using Stages G1–G5 based on the glomerular filtration rate (GFR), and Stages A1–A3 based on the urine albumin:creatinine ratio (ACR). Note that Stage G2 CKD requires evidence of kidney damage in addition to a reduced glomerular filtration rate (GFR), whereas Stages G3A–G5 are defined on the basis of GFR alone.

Box 2. Susceptibility to chronic kidney disease[1]

Red flags (risk factors)

- Family history of CKD
- Diabetes
- Hypertension
- Obesity (BMI >30 kg/m^2)
- Established cardiovascular disease
- History of acute kidney injury
- Smoking

BMI, body mass index; CKD, chronic kidney disease.

Additional considerations for Aboriginal and Torres Strait Islander people

- History of low birth weight
- History of recurrent childhood infections
- Remoteness
- Low socioeconomic status
- Housing insecurity and overcrowding
- Education levels
- Other impacts of colonisation

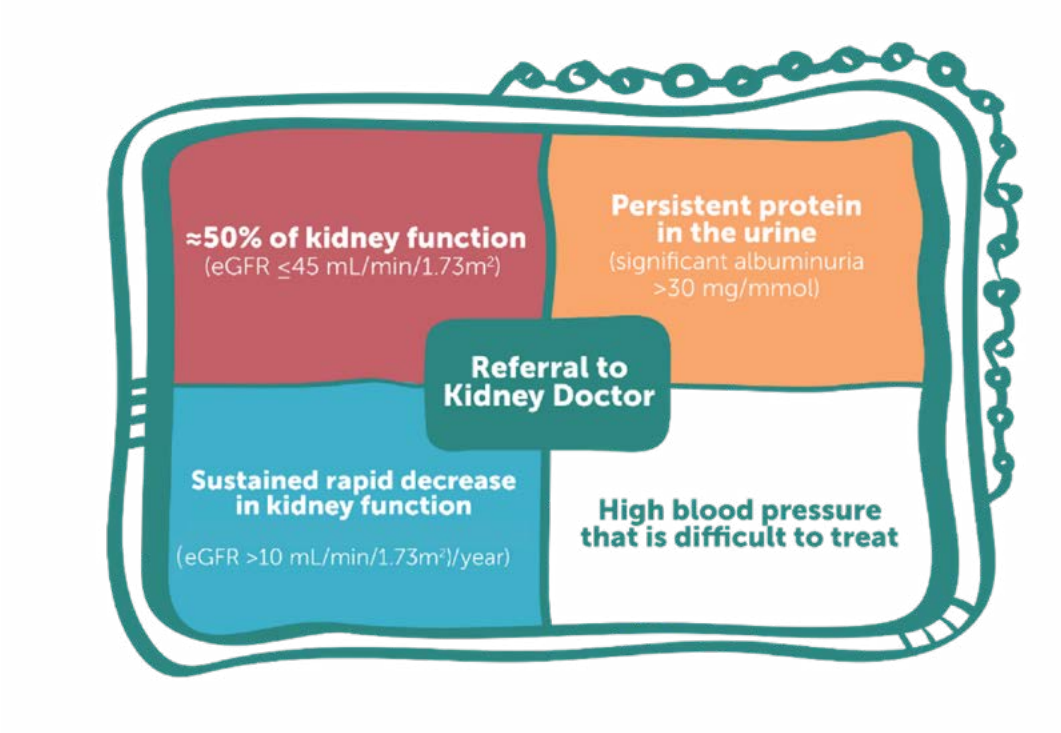

Figure 1. Criteria for referral to secondary care.

Reproduced with permission from *Recommendations for culturally safe and clinical kidney care for First Nations Australians*.[1]

Box 3. Medications to avoid in chronic kidney disease when dehydrated or fasting: SAD MANS

- **S:** Sulfonylureas such as glyburide, gliclazide
- **A:** ACE inhibitors such as ramipril, perindopril
- **D:** Diuretics such as hydrochlorothiazide, indapamide
- **M:** Metformin
- **A:** ARBs such as candesartan and irbesartan
- **N:** NSAIDs such as ibuprofen and diclofenac
- **S:** SGLT2 inhibitors such as dapagliflozin, empagliflozin

ACE, angiotensin-converting enzyme; ARBs, angiotensin II receptor blockers; NSAIDs, non-steroidal anti-inflammatory drugs; SGLT2, sodium–glucose cotransporter 2.

Implementation tips

- Maintain up-to-date medications on the primary care record and My Health Record and provide patients with an up-to-date medication list.
- Use recalls to make sure all people with CKD have regular review.
- Conduct a relevant clinical audit; for example:
  - ensure appropriate medications, including new medications
  - care pathways (as per guidelines)
  - recommendations for early referral.

Useful resources

Clinical guidelines

- CARI Guidelines: *Recommendations for culturally safe and clinical kidney care for First Nations Australians* (racgp.link/4goqDdz)
- Kidney Health Australia: *CKD management in primary care handbook* racgp.link/3XRdUYr
- Diabetes management in chronic kidney disease: Synopsis of the KDIGO 2022 clinical practice guideline update (journal article; racgp.link/4eqIEpG)

Patient resources

- Kidney Health Australia: How to look after your kidneys (fact sheet) (racgp.link/4eMeRYT)

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Chapter 19: Cancer prevention and early detection

Overview

Prevention and early detection of cancer

Although accurate and current data on the true impact of cancer on Aboriginal and Torres Strait Islander people are limited, available data highlight the stark inequities that exist within Australia.

In 2017, cancer overtook circulatory diseases as the leading cause of death among Aboriginal and Torres Strait Islander people, with lung, breast, bowel (colorectal), prostate and head and neck cancers the most commonly occurring.[1] In 2018, cancer was estimated to account for 9.9% of the total burden of disease for Aboriginal and Torres Strait Islander people.[2] This is 1.7-fold higher than for non-Indigenous Australians,[2] and the gap in mortality rates continues to widen between the two populations.

The evidence suggests specific, strategic and sustained efforts are required to redress inequities. Survival rates associated with screening-detectable preventable cancers (eg lung, breast, bowel, cervical, liver and head and neck cancers) are lower for Aboriginal and Torres Strait Islander people than for non-Indigenous Australian people.[3,4] Likewise, secondary and tertiary prevention initiatives are vitally important to achieving equity. Even where incidence rates of some cancers are lower for Aboriginal and Torres Strait Islander people (eg some childhood cancers and prostate cancer), survival rates are still lower, reflecting the systemic barriers to effective preventive and health promotion initiatives, as well as access to high-quality and timely care, including screening, early diagnosis, treatment, rehabilitation and palliative care.[5]

Aboriginal and Torres Strait Islander communities are best placed to identify priorities and lead community actions to prevent and manage cancer. Guided by the *National agreement on Closing the Gap* and four Priority Reforms,[6] the Australian Government has committed funding to the Aboriginal and Torres Strait Islander Community Controlled Health Organisation (ACCHO) sector to lead efforts to redress the cancer equity gap and improve health outcomes for those most at risk of, and affected by, cancer. Holistic, strengths-based, life course approaches that address the full spectrum of cancer care and control are needed. Trauma-informed approaches to care that acknowledge the fear, stigma and complexity associated with cancer prevention and care are essential to promoting the social, cultural, economic and emotional wellbeing of those living with and affected by cancer.

The foundations for a paradigm shift in cancer prevention and treatment among Aboriginal and Torres Strait Islander people and communities have been laid with the recent release of the *Aboriginal and Torres Strait Islander cancer plan*.[7] This plan has been codesigned with the ACCHO sector following extensive engagement and should inform all future efforts to meaningfully change and improve cancer outcomes for Aboriginal and Torres Strait Islander people.

This guide outlines the evidence base and makes recommendations for the prevention and early detection of six common cancers, and seeks to ensure all primary health practitioners have ready access to the latest body of evidence to inform clinical advice to community members and support locally adapted preventive initiatives. Aboriginal and Torres Strait Islander health workers, practitioners and hospital liaison officers have a particularly vital role to play in cancer prevention, management and care and are essential partners in cancer planning, implementation and evaluation initiatives at all levels.

Chapter 19: Cancer prevention and early detection

Cervical cancer

Professor Lisa Whop, Associate Professor Megan Smith

Key messages

- Elimination of cervical cancer is possible through human papillomavirus (HPV) vaccination, cervical screening and treatment of precancer and cancer.[1,2]
- HPV self-collection is now universally available across Australia.
- Self-collection is as sensitive, accurate and safe as a cervical screen conducted by a healthcare provider,[3] and is highly acceptable to Aboriginal and Torres Strait Islander people.[4]
- It is recommended that women with an oncogenic HPV-positive (type 16 or 18) result on a self-collected test are referred directly for colposcopy, with a liquid-based cytology (LBC) sample to be collected at colposcopy.[3]
- It is recommended that women with an oncogenic HPV-positive (other than type 16 or 18 (non-16/18)) result on a self-collected test return to the healthcare provider for a clinician-collected cervical sample for LBC to determine the risk category and next steps in the screening pathway.[3]
- Supporting Aboriginal and Torres Strait Islander women to attend for colposcopy when required is important for the prevention of cervical cancer.
- A single dose of HPV vaccine is now the recommended schedule and is funded under the National Immunisation Program (NIP) for people aged 9–25 years, providing a great opportunity for young people who missed out at school to easily catch up.[5]
- Seeing young people attending for healthcare and/or women attending at age 25 years to have their first cervical screening test is an opportunity to check whether their HPV vaccination is up to date and to give the free vaccine if there is no record of them having received it.
- Clinicians should be aware of highly gender-sensitive cultural practices for many Aboriginal and Torres Strait Islander people and that discussions about cervical screening need to be culturally appropriate and respectful of women's business.

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Immunisation				
All people aged 9–25 years, ideally aged 11–13 years and prior to onset of sexual activity	Provide single dose of HPV vaccine Check and update HPV vaccination status on the Australian Immunisation Register	Routinely offered in early high school; catch-up available through primary care and community immunisation services	Strong	National program[6]
People aged 26 years and over	Conduct individual risk–benefit assessment Vaccination of adults aged 26 years and over is not routinely recommended (and not funded under the NIP) A three-dose schedule is required if not commenced before the age of 26 years	As clinically indicated	Conditional	National guideline[5]
People with significant immunocompromising conditions **No upper age limit, as per Australian Technical Advisory Group on Immunisation (ATAGI) recommendations**	A three-dose schedule of the 9vHPV vaccine Not funded under the NIP for people aged 26 years and older	As clinically indicated	Conditional	National guideline[5]
Men who have sex with men **No upper age limit, as per ATAGI recommendations**	HPV vaccine for men who have not been vaccinated A three-dose schedule is required if not commenced before the age of 26 years Not funded under the NIP for people aged 26 years and older	As clinically indicated	Conditional	National guideline[5]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
Asymptomatic women and people with a cervix aged 25–69 years who have ever been sexually active	Offer cervical screening test (HPV based) via clinician collection or self-collection Support patient follow-up to completion of the screening/ follow-up pathway including: • repeating unsatisfactory tests • collecting cytology for those with HPV (non-16/18) detected on a self-collected sample • referring for colposcopy and, where needed, treatment for those with higher-risk results	Every five years from age 25 years	Strong	National guideline[3]
Women and people with a cervix with intermediate risk test results	Repeat tests at one year for intermediate-risk results, with referral to colposcopy for Aboriginal or Torres Strait Islander people with persistent HPV at one year	As clinically indicated	Strong	National guideline[3]
Pregnant asymptomatic women and people with a cervix aged 25–69 years who have ever been sexually active	Review cervical screening history as part of routine care Those who are due or overdue for screening should be offered screening via either clinician collection (correct sampling equipment must be used) or self-collection	Routine antenatal and postpartum care	Strong	National guideline[3]
Asymptomatic women aged 70–74 years who have ever been sexually active	Offer HPV cervical screening test by either clinician collection or self-collection Support patient follow-up to completion of the screening/ follow-up pathway including: • repeating unsatisfactory tests • referring for colposcopy and, where needed, treatment for those with higher-risk results (HPV detected, any type)	Between ages 70 and 74 years	Strong	National guideline[3]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
Women with recent screen-detected abnormalities, previously treated for high-grade cervical abnormalities or at high risk of cervical abnormalities (eg immune suppression, in utero exposure to diethylstilbestrol)	Screening and management refer to NCSP Guidelines (refer to Resources)	As per clinical guidelines, follow-up intervals vary by condition	Strong	National guideline[3]
Preventive activity: Behavioural				
All women	Assess smoking status and advise that smoking increases risks of cervical dysplasia and cervical cancer. (refer to Chapter 2: Healthy living & health risks, 'Smoking')	Opportunistically	Strong	Single studies[7,8]
All people undergoing cervical screening, especially women aged 30 years and younger (34 years and younger in remote areas) and people at risk of sexually transmissible infections and blood-borne viruses and/or anyone who requests screening	Consider offering a sexual health check as appropriate to age and context (see Chapter 13: Sexually transmissible infections and blood-borne viruses)	Opportunistically	Good practice point	National guidelines[9,10]

Implementation tips

- Always check whether a young person has had their dose of HPV vaccine (using the Australian Immunisation Register); only needing a single dose makes it much simpler to provide protection to everyone.
- Have regular recall and reminder mechanisms for cervical screening tailored to the local community (eg SMS reminder).
- Ensure Aboriginal and Torres Strait Islander status is recorded on pathology forms and in the National Cancer Screening Register.
- Increase staff awareness and education about the availability of HPV self-collection.
- Run locally tailored activities to increase participation in screening, such as community day events.
- Provide education about the signs and symptoms of cervical cancer.
- Ensure access to cervical screening and follow-up pathways, including through development of locally appropriate information.
- Consider the follow-up process to support people in whom HPV was detected.
- Spread the message about the elimination of cervical cancer. Communities can take up the challenge by supporting all their young people to get vaccinated and their mums, sisters and aunties to get screened once every five years.

Useful resources

Clinical guidelines

- Cancer Council Australia Cervical Cancer Screening Guidelines Working Party: *National cervical screening program: Guidelines for the management of screen-detected abnormalities, screening in specific populations and investigation of abnormal vaginal bleeding* racgp.link/4ewtCPl
- Department of Health and Aged Care: National Cervical Screening Program – clinical guidelines and resources for the cervical screening program racgp.link/4grXv51
- Cancer Council Australia Cervical Cancer Screening Guidelines Working Party: Management of oncogenic HPV test results flow chart racgp.link/4dZlYNr

General

- Department of Health and Aged Care: Resources for healthcare providers regarding the National Cervical Screening Program racgp.link/3zxciur
- ATAGI: Information about HPV in the Australian immunisation handbook racgp.link/3B2MUgz
- National Centre for Immunisation Research and Surveillance: HPV vaccines for Australians fact sheet racgp.link/47yEOIS

Patient resources

- Cancer Council Australia: Cervical screening racgp.link/4eo9b6Q
- Cancer Council Australia: Cervical Screening: Self-collection and the cervical screening test racgp.link/3XtKUFH
- Department of Health and Aged Care: Resources for Aboriginal and Torres Strait Islander women – National Cervical Screening Program racgp.link/3XotLx2
- Family Planning Australia: Yarning about cervical screening tests racgp.link/4e8eRSK

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Chapter 19: Cancer prevention and early detection

Breast cancer

Dr Sarah Cush

Key messages

- Breast cancer remains the most common cancer diagnosed in Aboriginal and Torres Strait Islander women.[1]
- Healthy weight, maintaining physical activity and avoiding harmful alcohol intake and tobacco smoking reduce the risk of breast cancer.[2]
- Aboriginal and Torres Strait Islander women aged 50–74 years at population risk are recommended to have a screening mammogram every two years.[3]
- Aboriginal and Torres Strait Islander women more frequently present at later stages of disease.[3]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All adult women	Ask about risk factors for breast cancer Consider using the iPrevent tool (see Useful resources)	Opportunistically	Strong	Australian report[4]
All adult women	Discuss breast awareness, rather than promoting regular breast self-examination	Opportunistically	Conditional	Position statement[5] International guideline[6]
All adult women	Investigate new breast lumps with the 'triple test': • history and examination • imaging • biopsy (See Useful resources)	As clinically indicated	Strong	National guideline[7]
Women at population risk aged under 40 years	Do not screen	N/A	Conditional	Position statement[5]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
Women at population risk aged 40–49 years	Do not routinely recommend screening mammography; however, it is available and funded via BreastScreen every two years when requested In some jurisdictions, women are being encouraged to commence screening from age 40 years	Every two years when requested	Conditional	Position statement[5] International guideline[6]
Women at population risk aged 50–74 years	Recommend screening mammography	Every two years	Conditional	International individual study[8]
Women at moderately increased risk (ie 1.5- to 3-fold the population risk) aged under 40 years	Do not screen	N/A	Conditional	Systematic review[9]
Women at moderately increased risk (ie 1.5- to 3-fold the population risk) aged 40–74 years	Recommend screening mammography	Annually may be recommended	Conditional	Systematic review and meta-analysis[10–12]
Women at high risk (ie more than threefold the population risk)	Advise referral to a family cancer clinic or specialist cancer clinic, where available, for further assessment of risk and advice about genetic testing, screening and prevention	When noted as high risk	Strong	International case control studies[13]
Preventive activity: Behavioural				
All adult women	Provide healthy living behavioural risk factor counselling on the benefits of regular physical activity, maintaining healthy weight, safe alcohol intake, avoiding smoking (refer to Chapter 2: Healthy living and health risks)	Opportunistically	Strong	Systematic review[9]
Pregnant and breastfeeding women	Advise that breastfeeding has been shown to reduce the risk of breast cancer, and support women to breastfeed their infants (refer to Chapter 6: Child health)	During and after pregnancy	Conditional	Systematic review and meta-analysis[10–12]
Women considering combined menopausal hormone treatment (MHT)	Advise about risks and benefits of combined MHT In particular, advise about the increased risk of breast cancer with continuous use for more than five years	When considering commencing MHT and every six months for women on combined MHT	Conditional	International case control studies[13]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medication				
Women identified as being at high risk, and women aged over 35 years at moderate risk	Consider specialist referral to discuss preventive treatment with tamoxifen or raloxifene as indicated by menopausal status	When required when calculated to be at potentially high risk	Strong	Systematic review[14] Position statement[15]

Implementation tips

- Use organised client reminder and recall systems, culturally appropriate resources for participants and collaboration with BreastScreen, including the use of mobile screening units, and arranging transport for women living remotely to attend services to support participation in screening.
- Participation in mammographic screening may be improved with health promotion campaigns through ACCHOs.

Useful resources

General

- Cancer Council: Breast cancer, in the *National cancer prevention policy* racgp.link/47vuqBG
- *Breast cancer: A handbook for Aboriginal and Torres Strait Islander health workers* racgp.link/4gsfpEN
- Breast cancer triple test: (1) medical history and clinical breast examination; (2) imaging – mammography and/or ultrasound; and (3) non-excisional biopsy – core biopsy and/or fine needle aspiration cytology racgp.link/3MRh60X
- Australasian Menopause Society racgp.link/3zoLyMK
- The Beautiful Shawl Project racgp.link/3zrvppU

Tools

- iPrevent (which has superseded the Familial Risk Assessment Tool) racgp.link/3zoLzAi
- Jean Hailes toolkit racgp.link/4gynzM2
- Monash University toolkit for managing menopause racgp.link/47uo3i3

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Chapter 19: Cancer prevention and early detection

Liver (hepatocellular) cancer

Dr Nicole Allard, Mr Troy Combo

Key messages

- Liver cancer[Δ] is usually caused by viral hepatitis (hepatitis B and C), alcoholic liver disease and/or metabolic dysfunction-associated fatty liver disease (MAFLD).[1]
- Liver cancer usually occurs in a damaged liver (severe damage in the liver is called cirrhosis).[1]
- Liver cancer can be prevented by vaccination for hepatitis B, treatment of hepatitis B and C and by modifying alcohol intake, diet and other health risk behaviours.
- All adult Aboriginal and Torres Strait Islander people whose immune status is not known should be offered testing for hepatitis B.[2]
- If a person has no history of vaccination, is non-immune and there is no evidence of infection with hepatitis B, they should be offered vaccination for hepatitis B.[3]
- People with a diagnosis of hepatitis B should be monitored at least yearly and started on antiviral treatment if there are signs of liver damage or cirrhosis.[3]
- Hepatitis C can be prevented by harm-reduction strategies, including needle exchange programs.
- Targeted screening of people at higher risk of hepatitis C should be offered.[4]
- All Aboriginal and Torres Strait Islander people with hepatitis C should be offered treatment to cure the infection. Direct-acting antiviral (DAA) hepatitis C treatments are easy for most people to take and cure more than 95% of people.[5]
- The early detection of liver cancer through surveillance (six-monthly ultrasound with or without α-fetoprotein (AFP)) can lead to people receiving treatments that can cure the cancer and/or increase survival.[1]
- Six-monthly liver cancer surveillance by liver ultrasound, with or without AFP, should be offered to Aboriginal and Torres Strait Islander people who are suitable for and would consider treatment if a diagnosis of liver cancer (hepatocellular carcinoma (HCC)) was made and who:
  - have cirrhosis
  - have hepatitis B and are aged 50 years or older
  - are aged 40 years or older **with** a family history of one or more first-degree relatives with liver cancer **or** with a high-risk hepatitis B virus (HBV) genotype individually confirmed (eg C4) or epidemiologically likely.[1]

[Δ]Primary liver cancer/HCC throughout this topic will be referred to as 'liver cancer'. The liver can be a site for spread from other cancers (ie secondary liver cancer), which is not included in this topic.

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Immunisation				
All infants	Hepatitis B vaccination as per the National Immunisation Program Schedule	At birth and at age <24 hours and 2, 4 and 6 months for all infants	Strong	Australian guideline[6]
All hepatitis B non-immune adults	Offer immunisation if not previously vaccinated Consult the *Australian immunisation handbook* if previously immunised (non-responder; see Non-responders to hepatitis B vaccine in Useful resources)	As clinically indicated	Strong	Australian guideline[6]
Babies born to women with hepatitis B **AND** **People who have a recent high-risk exposure to hepatitis B (eg occupational exposure)**	Offer hepatitis B immunoglobulin	After birth (preferably within 12 hours and in addition to hepatitis B birth dose) **AND** After exposure (preferably within 72 hours)	Strong	Australian guideline[6]
Preventive activity: Screening for hepatitis B				
All adults not previously screened or whose hepatitis B status is not known (see Chapter 13: Sexually transmissible infections and blood-borne viruses and Chapter 5: Preconception and pregnancy care, Pregnancy care)	Test for hepatitis B using three serology markers: hepatitis B s antigen (HBsAg), and anti-HBs and anti-HBc antibodies Record status Offer immunisation if non-immune and not vaccinated Consult the *Australian immunisation handbook* if previously immunised (non-responder; see Non-responders to hepatitis B vaccine in Useful resources)	Opportunistically, antenatally, as part of general or sexual health checks Does not need to be repeated if immune	Strong	Australian guidelines[2]
Preventive activity: Screening for hepatitis C				
Adults at higher risk of hepatitis C (see Box 1 and Chapter 13: Sexually transmissible infections and blood-borne viruses and Chapter 5: Preconception and pregnancy care, Pregnancy care)	Recommend testing for hepatitis C antibodies (anti-HCV) plus HCV RNA if antibodies are detected	Opportunistically, at least annually, sexual health check or during antenatal care	Strong	Australian guidelines[4]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All people who are HCV antibody positive and have had a negative hepatitis C virus (HCV) RNA test in the past **AND** **If there is ongoing history of higher risk of hepatitis C infection**	Offer HCV RNA test	Opportunistically	Strong	Australian guideline[4]
All adults with increased risk of cirrhosis and liver cancer from common conditions (eg diabetes and obesity)	Conduct liver function tests (LFTs)	At least annually	Good practice point	Australian guideline[1]
For adults at risk of rare causes of liver disease (eg with a family history of autoimmune hepatitis, Wilson's disease haemochromatosis)	Conduct LFTs Arrange liver ultrasound if LFTs abnormal	As per risk factors and clinical indication	Good practice point	Australian guideline[1]
Preventive activity: Behavioural				
All people with abnormal LFTs	Assess for the cause of liver disease, including for hepatitis B and C, diabetes, obesity, alcohol use and other rarer causes Arrange liver ultrasound to assist diagnosis of MAFLD Conduct non-invasive tests for fibrosis[*]	As clinically indicated	Good practice point	Australian guideline[7]
All adults with risk factors for liver cirrhosis	Examine for signs of liver disease and consider non-invasive test for cirrhosis[*]	Every two years for people with viral hepatitis	Good practice point	Australian guidelines[7]
All adults with cirrhosis who are willing and suitable for receive treatment (as defined in the Key source guidelines) if liver cancer is diagnosed	Liver ultrasound with or without AFP	Six monthly	Strong	Australian guidelines[1]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural (continued)				
All people living with hepatitis B who: • **are aged over 50 years** **OR** • **are aged 40 years and over and have a first-degree family history of liver cancer** **OR** • **are aged 40 years and over with a high-risk HBV genotype individually confirmed (eg C4) or epidemiologically likely**	Liver ultrasound with or without AFP	Six monthly	Conditional	Australian guidelines[1]
Adolescents and adults	Assess the quantity and frequency of alcohol consumption and advise about safer levels of alcohol consumption to reduce long-term risk of alcohol-related harm (refer to Chapter 2: Healthy living and health risks, Alcohol and Chapter 7: The health of young people)	Opportunistically and as part of annual health check	Conditional	Australian guideline[8]
Adolescents and adults	Assess smoking status and encourage smoking cessation (see Chapter 2: Healthy living and health risks, Smoking)	Opportunistically	Good practice point	Australian guideline[9]
People with overweight/obesity or metabolic syndrome	Advise of the risks of MAFLD and promote weight reduction strategies (see Chapter 15: Overweight and obesity)	Opportunistically and as clinically indicated	Good practice point	Australian guideline[9]
People at higher risk of hepatitis B or C infection (see Box 1)	Provide counselling on harm minimisation, including immunisation for hepatitis B, and promote peer education strategies around safer sex and injecting drug use where relevant (refer to Chapter 13: Sexually transmissible infections and blood-borne viruses)	Opportunistically	Strong	National guidelines[2,4]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medication				
All people with chronic hepatitis B infection	Assess and treat as per guidelines (see Hepatitis B diagnosis and next steps in Useful resources)	As clinically indicated	Strong	Australian guideline[3]
Pregnant women with hepatitis B with a viral load >200,000 IU/mL	Prescribe antiviral treatment for prophylaxis of mother-to-child transmission	In the last trimester	Strong	Australian guideline[3]
All people with hepatitis C infection for six months or longer, as well as those with risk factors for hepatitis C who have HCV RNA on testing regardless of duration of infection	Provide counselling and offer treatment while addressing other health needs	As clinically indicated	Strong	Australian guideline[5]

[‡]Non-invasive tests for fibrosis have largely replaced liver biopsy, which is rarely performed. Non-invasive tests used include transient elastography (TE; FibroScan®) and risk calculators such as the aspartate aminotransferase to platelet ratio index (APRI score) and Fibrosis-4 (FIB-4) score. These calculators use blood tests (LFTs and full blood examination, with or without age) and can be found online (see Useful resources). They provide a good alternative to assess people living in rural or remote settings where access to TE is limited.

Definitions of liver disease not related to viral hepatitis

There has been a recent reclassification of liver disease in 2023.[10] The term 'fatty liver' and reference to 'alcoholic' in older terms were recognised as stigmatising language. This new naming system (Box 2) has not yet been widely adopted and this document has mostly used 'metabolic dysfunction-associated fatty liver disease' (MAFLD) because it is familiar to users of the guide, but it is important to note there is a mixture of old and new nomenclature in the guidelines and other literature. Clinical software may still use older terms. These new names will become more commonly used in the future to describe liver disease that is not related to viral hepatitis.

Box 1. People at higher risk of hepatitis C infection: Who to screen

- People who inject drugs or who have ever injected drugs
- People in custodial settings
- People with tattoos or body piercings
- Children born to mothers with hepatitis C virus (HCV) infection
- Sexual partners of a person with HCV infection (individuals at higher risk of sexual transmission include men who have sex with men and people with HCV–HIV co-infection)
- People with evidence of liver disease (persistently elevated alanine aminotransferase level)
- People who received a blood transfusion or organ transplant before 1990
- People with coagulation disorders who received blood products or plasma-derived clotting factor treatment products before 1993
- People with HIV or hepatitis B virus infection
- People who have had a needlestick injury

Box 2. New terminology for liver disease not related to viral hepatitis[10]

New name	Old name	Explanation
Steatotic liver disease (SLD)	Fatty liver disease	Overall term to describe when there is steatosis or a build up of fat in the liver. This causes inflammation and raised liver function tests. SLD can be from metabolic causes, alcohol or drug induced or due to an unknown cause or combination of causes.
Metabolic dysfunction-associated steatotic liver disease (MASLD)	Fatty liver, non-alcoholic fatty liver disease (NAFLD) or metabolic dysfunction-associated fatty liver disease (MAFLD), non-alcoholic steatohepatitis (NASH)	Where there is metabolic dysfunction associated with the process of steatosis or fat build up in the liver. Metabolic dysfunction includes diabetes, insulin resistance and other cardiovascular risk factors.
MASLD and alcohol-induced injury (Met-ALD)	A mixture of metabolic and alcohol-related terms	Describes a mixed cause of liver disease.
Alcohol-associated or -related liver disease (ALD)	Alcoholic liver disease (ALD)	When the person has a higher alcohol intake (eg four or more standard drinks a day or 28 or more per week), the alcohol is more likely to be the main cause of the liver injury.
Drug-induced liver injury	Fatty liver caused by medication or other drugs	This can include prescribed medicines or complementary therapies that can cause liver injury.

Useful resources

Hepatitis B

- Consensus recommendations on the management of hepatitis B
  - racgp.link/3Xv4MZ9
  - racgp.link/3Xv4IbR
- Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine (ASHM) hepatitis B hub racgp.link/4dapLGA
- Hepatitis B diagnosis and next steps summary racgp.link/3XtNk7f
- Department of Health, National Health and Medical Research Council (NHMRC): Hepatitis B in the *Australian Immunisation handbook* racgp.link/4eruvbR
- Non-responders to hepatitis B vaccine racgp.link/3XyrqzW
- Menzies School of Health Research: Hep B Story app from Menzies racgp.link/3Xzyo7N

Hepatitis C

- Consensus recommendations on management of hepatitis C racgp.link/3XwbIVR
- ASHM hepatitis C hub racgp.link/3XtNtHP
- APRI calculator racgp.link/3TAEXpg
- FIB-4 calculator racgp.link/47EOJwv
- Liverpool drug interaction calculator racgp.link/4er7SnH

HCC surveillance guidelines

- Clinical practice guidelines for HCC surveillance for people at high risk in Australia racgp.link/3MRLAjg

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Chapter 19: Cancer prevention and early detection

Bowel cancer

Dr Jonathan Gillies

Key messages

- Risk factors such as cigarette smoking, alcohol consumption, exercise and dietary factors account for approximately 50% of the incidence of all bowel cancers.[1]
- Primary care is well placed to help reduce the incidence and mortality from bowel cancer by promoting and assisting healthy ways of living.
- The National Bowel Cancer Screening Program (NBCSP) is an effective and publicly funded population-based program using two-yearly immunochemical faecal occult blood testing (iFOBT) to detect early abnormalities and asymptomatic bowel cancer.[2]
- Updated clinical practice guidelines (September 2023), which have been implemented in the NBCSP, recommend screening of individuals every two years from age 45 -74 years.[3]
- Screening participation is increased with encouragement and access to testing kits from healthcare providers.[4]
- Individuals with a family history of bowel cancer require an assessment of their level of risk for screening, prevention and surveillance recommendations.[5]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All people aged 45–74 years without symptoms or family history (average risk)	Encourage participation in iFOBT screening	Every two years	Strong	National guideline[3]
All people who complete an iFOBT	Make sure results and outcomes for everyone who completes an iFOBT, including referral for colonoscopy, are registered with the NCSR	Every two years	Good practice point	National guideline[3]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
All people in Category 1 (higher risk but less than twice average; see Box 1)	Encourage eligible patients to complete and return the iFOBT home test kit from the NBCSP Provide alternative access to the iFOBT home test kits by bulk ordering and issuing kits directly to eligible patients through the NCSR (see Useful resources)	Every two years	Strong	National guideline[5]
All people in Category 2 (two- to fourfold higher than average risk; see Box 1)	Colonoscopy (or computed tomography colonography if colonoscopy is contraindicated) Genetic testing is not recommended at present for people with Category 2 risk	Every five years starting at 10 years younger than the earliest age of diagnosis of bowel cancer in a first-degree relative or age 50 years, which every is earlier, to age 74 years If eligible, people should use the NBCSP before their elevated risk is identified or colonoscopy screening is required	Good practice point	National guideline[5]
All people in Category 3 (risk at least fourfold and up to 20-fold higher than average; see Box 1)	Referral to a genetic service for consideration of further testing	As clinically indicated every five years starting at 10 years younger than the earliest age of diagnosis of bowel cancer in a first-degree relative or age 40 years, which every is earlier, to age 74 years If eligible, people should use the NBCSP before their elevated risk is identified or colonoscopy screening is required	Good practice point	National guideline[5]
Preventive activity: Behavioural				
All people (eg from adolescence onwards)	Provide health risk factor counselling and primary prevention messages regarding diet (including high fibre intake and minimising foods such as red and processed meat), healthy weight, physical activity, tobacco smoking and alcohol (refer to Chapter 2: Healthy living and health risks, Healthy eating, Physical activity and sedentary behaviour, Smoking and Alcohol and Chapter 15: Overweight and obesity)	Opportunistically	Good practice point	National guideline[3]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural (continued)				
All people who complete an iFOBT and follow-up	Make sure results and outcomes for everyone who completes an iFOBT, including referral for colonoscopy, are registered with the NCSR (see GP assessment report in the Useful resources)	As clinically indicated	Strong	National guideline[3]
Preventive activity: Medication				
People at high risk of bowel cancer due to familial syndromes (eg Lynch syndrome and familial adenomatous polyposis) from a young age (eg 25 years) in discussion with a specialist	Commence daily low-dose aspirin	As clinically indicated	Conditional	National guideline[3]
All people aged 50–70 years at average or higher risk of bowel cancer	Discuss and assess the option of daily low-dose (100 mg) aspirin	Opportunistically, as clinically indicated	Good practice point	National guideline[3] Expert reviewer advice

Box 1. Assessing the risk of bowel cancer based on family history and no symptoms (excluding people with genetic predisposition)[3]

Category 1: Higher but less than twice the average risk	• Only one first-degree[A] relative diagnosed at age 60 years or older
Category 2: Risk two- to four-fold higher than average	• Only one first-degree relative diagnosed before age 60 years • One first-degree and one or more second-degree[B] relatives diagnosed at any age • Two first-degree relatives diagnosed at any age
Category 3: Risk at least four-fold and up to 20-fold higher than average	• Relatives AND one second-degree relative with colorectal cancer, with at least one diagnosed before age 50 years • Two first-degree relatives AND two or more second-degree relatives with colorectal cancer diagnosed at any age • Three or more first-degree relatives with colorectal cancer diagnosed at any age

[A]A first-degree relative is an individual's parent, sibling or child. A first-degree relative shares approximately half their genes with the individual.[6]

[B]A second-degree relative is an uncle, aunt, nephew, niece, grandparent, grandchild or sibling with one shared parent of the individual. A second-degree relative shares approximately one-quarter of their genes with the individual.[7]

Implementation tips

- Use reminders and recall clinical software to prompt discussions about bowel cancer screening (eg to check knowledge of and participation in the screening program).
- Offer the option of completing screening in the clinic setting, including storing and posting completed kits on behalf of community members.
- Encourage the appointment of a bowel cancer screening 'champion' for promotion and use of home and in-clinic alternative-access iFOBT kits at all primary and community healthcare centres, with a focus on Aboriginal and Torres Strait Islander advocates and/or community members wherever possible.
- Deliver culturally appropriate, place-based health promotion and community awareness raising activities to encourage participation in bowel cancer screening.
- Provide staff training, including Aboriginal health workers and practitioners, nurses and GPs, regarding access to iFOBT kits for eligible people during an appointment, through the alternative-access NBCSP pathway. Aboriginal Community Controlled Health Organisations participating in the alternative-access-to-kits model can contact the National Aboriginal Community Controlled Health Organisation (NACCHO) for training options.
- Healthcare providers can now bulk order and issue bowel screening kits to eligible patients for them to complete at home after a consult and a discussion regarding bowel cancer screening.
- Make sure healthcare providers are aware of and are supported to register kits issued to community members into the NCSR. To ensure patients get their test results and that follow up is tracked, bowel screening kits issued to eligible people **must** be registered with the NCSR (see racgp.link/4eqi28c).
- When possible, consider integrating practice software with the NCSR to seamlessly access and report clinical data on bowel screening, and to bulk order and issue NBCSP test kits (see racgp.link/4gGqnqq).

Useful resources

Clinical guidelines

- Review and update of clinical practice guidelines for the prevention, early detection and management of colorectal cancer racgp.link/4eb1GRa
- NBCSP participant screening pathway racgp.link/4e5coc3
- Updates to the NBCSP racgp.link/4dZoVO1

Accessing bowel cancer screening kits

- NBCSP access to bowel screening kits racgp.link/4eqi28c
- Australian Government and NCSR: NCSR quick start guide for the alternative-access-to-kits model racgp.link/3ZqeuyD

Notifying the NCSR

- GP assessment report racgp.link/3XyZGLD

General information and health promotion

- NCSR information for participants, healthcare providers and government agencies racgp.link/47ueY8V
- Information for Aboriginal and Torres Strait islander peoples on free bowel cancer screening racgp.link/3XuFwCg
- General information on bowel cancer screening racgp.link/3B8HSzr
- Australian Indigenous HealthInfoNet: How to do the bowel screening test racgp.link/3XwtmJh
- Bowel Cancer Australia: national not-for-profit charity championing awareness, expanded access to screening and health promotion activities in the community for bowel cancer prevention and care racgp.link/4def7P4
- NACCHO: Bowel cancer screening racgp.link/3zxfMgv

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Chapter 19: Cancer prevention and early detection

Prostate cancer

Dr Jonathan Gillies

Key messages

- Prostate cancer is the most common cancer in Aboriginal and Torres Strait Islander men.[1]
- Increasing age and a family history of prostate cancer, particularly in a first-degree relative (biological brother or father), are the main risk factors for developing prostate cancer.[2]
- There is no national screening program for prostate cancer because current evidence does not support age-based screening of average-risk people in the population.
- The prostate-specific antigen (PSA) test is the only test currently recommended in primary care to assess an individual man's potential prostate cancer risk. Although the PSA test can help detect prostate cancers earlier, it can also lead to overdiagnosis and unnecessary, harmful overtreatment.[3]
- Updated national clinical practice guidelines for the use of the PSA test are currently in development, with the project overseen by a project steering committee that includes Aboriginal and Torres Strait Islander representation and a plan for Aboriginal and Torres Strait Islander stakeholder consultation.
- The decision to take a PSA test should be made by an individual patient in consultation with their doctor based on an informed discussion of the possible benefits and harms of the test.[4]
- Clinicians should be aware of highly gender-sensitive cultural practices for many Aboriginal and Torres Strait Islander people and that discussions about the prostate need to be culturally appropriate and respectful of men's business.[5]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
Men aged under 70 years at average risk (no family history of prostate cancer)	**Do not** routinely recommend PSA testing	N/A	Strong	International and national guidelines[6–8]
Men aged 50–69 years at average risk (no family history of prostate cancer) who are fully informed, understand the benefits and harms of testing and wish to undergo regular testing	Offer testing and further investigation if PSA >3.0 ng/mL	Every two years	Conditional	National guidelines[6,9]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
Men aged 40–69 years at increased risk (eg a first-degree family member with cancer diagnosed at age <60 years) who wish to undergo regular testing	Conditionally recommend PSA testing	Every two years If initial PSA ≤75th percentile for age, no further testing until age 50 years If PSA in the 75th–95th percentile for age, reconfirm the offer of testing every two years If PSA ≥95th percentile for age, offer further investigation.	Conditional	National guidelines[6,9]
Men aged 70 years and over	**Do not** routinely recommend PSA testing	N/A	Good practice point	National guidelines[6,9]
Any man unlikely to live more than another seven years at any life stage	**Do not** recommend PSA testing	N/A	Strong	National guidelines[6,9]

Implementation tips

- If a man has elected to undergo PSA testing, set up a recall/reminder to rescreen at an appropriate time interval (eg every two years).
- Primary healthcare clinics and services should consider cultural, structural and individual barriers to effective care, including culturally appropriate approaches to prostate cancer education and discussion, and recognition of gender-diverse people (LGBTQIA) and their individual healthcare needs.

Useful resources

Clinical guidelines

- Prostate Cancer Foundation of Australia and Cancer Council Australia: Clinical practice guidelines: PSA testing and early management of test-detected prostate cancer (note, updated guidelines are expected 2024–25) racgp.link/3Xud0AU
- Prostate Cancer Foundation of Australia: *Engaging Aboriginal and Torres Strait Islander communities in prostate cancer health care programs* racgp.link/47ug2cV

Patient resources

- Prostate Cancer Foundation of Australia: Should I have a PSA test? racgp.link/4esZfcn

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Chapter 19: Cancer prevention and early detection

Lung cancer

Dr Jonathan Gillies

Key messages

- The single most important preventive activity is preventing exposure to tobacco smoke through preventing smoking, supporting smoking cessation and preventing exposure to second-hand smoke.[1]
- Lung cancer is the leading cause of cancer-related deaths in Aboriginal and Torres Strait Islander people.[2]
- A national publicly funded lung cancer screening program for eligible people using low-dose computed tomography (LDCT) will commence in 2025.[3]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural				
People aged over 10 years	Provide health risk factor counselling on the benefits of avoiding smoking and exposure to second-hand smoke[4]	Opportunistically	Strong	National guideline[1]
All people who currently smoke	Ask, advise and offer help to quit smoking, including referral to culturally appropriate quit supports[4]	Opportunistically	Strong	National guideline[4]
Preventive activity: Screening				
Asymptomatic adults who do not have a history of heavy smoking	Do not recommend screening with chest X-ray or computed tomography (CT)	N/A	Strong	National guideline[5]
Asymptomatic people aged 50–70 years with a history of at least 30 pack-years of cigarette smoking (currently smoking or quit within the past 10 years)	Discuss potential benefits and harms of LDCT scan Note: National Lung Cancer Screening Program to commence July 2025	Every two years	Strong	National guideline and strategy[5,6]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Environmental				
All people	Ask about and offer advice regarding tobacco smoke exposure (eg in the home) and possible workplace and environmental exposures to known risk factors for lung cancer	Opportunistically	Good practice point	National guideline[1]

The proposed National Lung Cancer Screening Program recommends low-dose CT (LDCT) scanning every two years for people aged 50–70 years with a 30 pack-year history of cigarette smoking and for former smokers who quit within the past 10 years.[6] This differs to the current Cancer Council Australia clinical practice guideline, which gives Grade C evidence to considering a CT scan in those aged 55–74 years with a 30 pack-year history and former smokers who have quit within the past 15 years.[5] Tracking pack-year calculations in Aboriginal and Torres Strait Islander peoples may be a challenge and healthcare professionals are encouraged to use clinical judgement to consider daily smoking habits.

Implementation tips

- Support and do not stigmatise people who smoke, being especially mindful of harmful colonial legacies of tobacco.
- Ensure training and systems to support the AAH (Ask, Advise, Help) approach to smoking cessation.
- Ensure smoking status is recorded and updated in the patient's medical record.
- Use clinical judgement to consider daily smoking habits when calculating pack-years. This may include considering factors such as the age at which the individual first began smoking and their level of nicotine dependence.
- Keep up to date with recommendations and advice regarding the roll out of the National Lung Cancer Screening Program.

Useful resources

Clinical guidelines

- Cancer Council Australia: *Clinical practice guidelines for the prevention and diagnosis of lung cancer* racgp.link/47yIRVA
- The Royal Australian College of General Practitioners (RACGP). *Supporting smoking cessation: a guide for health professionals* racgp.link/4euPpa4
- Cancer Australia: *Investigating symptoms of lung cancer: A guide for all health professionals – a guide and flowchart to help health professionals identify and arrange appropriate investigations of symptoms and signs of lung cancer, and to support the timely referral of patients into the multidisciplinary diagnostic pathway* racgp.link/4euMHRK

Patient resources

- Quitline: telephone 13 7848 or 13QUIT or go online (racgp.link/47rhiNW) to arrange a free call back and follow-up telephone calls
- Tackling Indigenous Smoking Resource and Information Centre racgp.link/47yq10P

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Chapter 20: Mental health

Introduction

Dr Timothy Senior

Background

The refreshed *National agreement on closing the gap*[1] in 2020 established formal partnerships and joint decision making between governments and Aboriginal and Torres Strait Islander people, with a new set of 19 national socioeconomic targets. Outcome Number 14 is 'Aboriginal and Torres Strait Islander people enjoy high levels of social and emotional wellbeing'.[1] The target indicator for this measure is 'Significant and sustained reduction in suicide of Aboriginal and Torres Strait Islander people towards zero'.[1]

Importantly, the terminology used in the Closing the Gap partnership, and used widely among Aboriginal and Torres Strait Islander people is 'social and emotional wellbeing' (SEWB). This is sometimes inaccurately considered to be synonymous with the term 'mental health', and although there are areas of overlap, the concepts have different cultural underpinnings and conceptions of health and wellbeing.

SEWB implies a holistic, strengths-based approach and is distinguished from a disease-oriented medical model (see Box 1).

Box 1. Concepts of social and emotional wellbeing

In broad terms, SEWB is the foundation for physical and mental health for Aboriginal and Torres Strait Islander people. It is a holistic concept that results from a network of relationships between individuals, family, kin and community. It also recognises the importance of connection to land, culture, spirituality and ancestry, and how these interact and affect the individual.

SEWB may change across the life course: what is important to a child's social and emotional wellbeing may be quite different to what is important to an Elder. However, across the life course, a positive sense of SEWB is essential for Aboriginal and Torres Strait Islander people to lead successful and fulfilling lives.[2,3]

SEWB is a key component of the Aboriginal definition of health, includes concepts of connection to Country, kin and community and is applicable across the whole lifecycle.[4,5] However, much of the research in this area is done in settings outside of Aboriginal and Torres Strait Islander communities, without Aboriginal and Torres Strait Islander ownership, and is grounded within a more Western, individualistic, medical model of health. As such, inclusion criteria and outcomes are determined by Western-centric diagnostic categories, such as those in the *Diagnostic and statistical manual of mental disorders, fifth edition, text revision* (DSM-5-TR),[6] that do not incorporate Aboriginal and Torres Strait Islander perspectives (see Box 1). In looking at evidence to make recommendations for the prevention of depression and suicide, this chapter recognises there can be tensions between biomedical- and Aboriginal and Torres Strait Islander-oriented concepts of mental health. These are the same tensions experienced by healthcare practitioners who, in preventing, diagnosing and managing conditions based in a mental illness paradigm, need to recognise, incorporate and balance understandings of SEWB into their care in order to provide optimal, culturally safe care.

It is important to recognise that the term 'mental health' has negative connotations for many Aboriginal and Torres Strait Islander people for a number of reasons. These include, but are not limited to:

- many families having negative experiences with the way their loved ones have been managed in the biomedical psychiatric treatment model (eg trauma associated with use of the *Mental Health Act*)
- the lack of recognition of Aboriginal and Torres Strait Islander peoples' cultural and spiritual worldview in interpreting symptoms (eg hallucinations/seeing Ancestors and Spirits in some forms is not unusual)
- community stigma towards some mental health disorders.

For these reasons, health practitioners should be aware of local conventions and preferences in the use of this terminology. The best way to ensure this is to work with local Aboriginal and Torres Strait Islander health practitioners, health workers and other health professionals whenever possible.

Trauma-informed care

Trauma occurs when a person's coping capacity is overwhelmed by the experience or perception of severe threat. Trauma can be experienced at an individual level, such as the complex trauma due to childhood adversity[7,8] and following specific frightening incidents. For Aboriginal and Torres Strait Islander people, the experience of trauma is expanded through the historical effects of colonisation. Colonisation creates intergenerational trauma due to 'dispossession from land, forced removal of Indigenous children from families, and institutionalised racism'.[9] The perception of threat from colonisation may not be severe in the moment, but it is chronic and deeply felt across communities and generations. It therefore compounds the effects of trauma arising from individual traumatic experiences. Intergenerational and collective trauma has been shown to affect the nervous system, contribute to chronic physical health problems and influence the social determinants of health.

According to Productivity Commission estimates based on Australian Bureau of Statistics data, 75% of Australian adults have experienced some form of trauma in their lifetime.[10] In Aboriginal and Torres Strait Islander communities across southern Queensland and northern New South Wales, 65% of people had experienced trauma in their lifetime, with 62% experiencing more than one trauma.[11] This puts an onus on healthcare practitioners to practise in a way that is trauma informed, especially when we may be raising issues of mental health and SEWB without the patient bringing it up themselves in a prevention setting.

Practitioners should be alert to the potential of a history of significant trauma in people attending a health service, and that they may not be ready to disclose this, or talk about the detail, and that being encouraged to discuss previous trauma when they are not ready can be harmful, setting back their recovery. This requires care in the referral process to minimise the need for people to retell their story, which can be deeply triggering and retraumatising. Practitioners should also be aware of intergenerational and collective trauma and the impact this has on the therapeutic relationship in gaining trust and rapport. Practitioners are again encouraged to seek support from local Aboriginal and Torres Strait Islander health professionals in understanding and mitigating this. Practitioners cannot rely on trust developing automatically, and often need to take active steps in the consultation to engender trust and rapport. There are many Aboriginal and Torres Strait Islander organisations and resources that offer training in trauma-informed care to facilitate this.

The detection and treatment of complex trauma is beyond the scope of this guideline and, although many primary care health practitioners will not be providing specific treatment for trauma, all practitioners should take a trauma-informed approach with their patients*. This includes the general communication skills required for all consultations, in providing professionalism, medical expertise and a warm manner.

* Note that while acknowledging that some services may prefer the term 'client', this chapter uses the term 'patient'. This is consistent with the rest of the National Guide and does not change any of the recommendations.

Key principles for trauma-informed care for Aboriginal and Torres Strait Islander people outlined by Dr Carmen Cubillo, coordinator of the Damulgurra program of cultural safety training in the Northern Territory are to:

- support relationship building and connectedness as a means to promote healing
- understand trauma and its impacts
- understand privilege and the dynamics of power (cultural safety)
- create environments in which staff, patients and community members feel physically, emotionally and spiritually safe
- empower and support patients in their journey of healing and recovery
- integrate and coordinate care to holistically meet the needs of individuals' families and communities.[12]

These principles are consistent with those outlined by the Blue Knot Foundation:[13]

- active listening and validation of the person's experience
- providing an environment and interaction that enables the person to feel physically and emotionally safe
- trustworthiness
- providing choice to the person about options available to them
- collaborating with the person
- empowering the person.

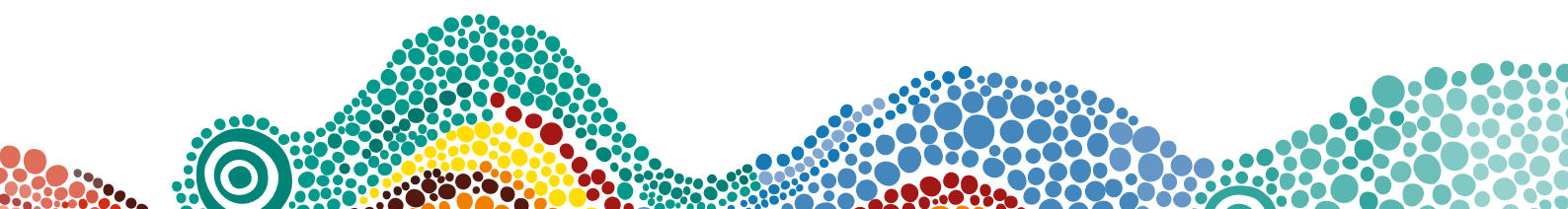
It is not unusual that the sense of safety has to be established repeatedly. The setting in which care is provided is also important in being able to establish a trauma-informed approach to care.

The Stolen Generations

The forced removal of Aboriginal and Torres Strait Islander children from their families through race-based policies of state and federal governments from 1910 through to the 1970s had a profound effect on the health and SEWB of those removed, and subsequently on their children.[14] Although this may not be disclosed to health practitioners, practitioners need to be aware of the effect of these policies, including the way in which they have affected trust in institutions, including health services and health professionals. Although these official policies are now discontinued, removal continues at a high level through child protection policies, and the result of this on the SEWB of children, adolescents and adults of all ages, and subsequent generations, is currently unknown.

Aboriginal and Torres Strait Islander LGBTQIA+SB SEWB

The Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual, Sistergirl and Brotherboy (LGBTQIA+SB) community are affected by racism and colonisation, as well as homophobia and other gender- and sexuality-related phobia, with a compounding of the effects on health and SEWB.[15] The protective effects of a supportive and empowering community are an important source of power and help seeking. Many Aboriginal and Torres Strait Islander communities are very accepting of gender diversity and can be a source of strength to connect with community and kin. Health services and healthcare practitioners need to be aware of this intersection, and identify and celebrate the diversity among their patients, to enable discussions about mental health experiences without fear, and to be able to tailor the most appropriate care for each person.



Caring for self and each other

Working with people experiencing problems with mental health puts health professionals face to face with suffering. Perhaps more than in other areas of healthcare, health professionals relate to people with mental health problems with empathy, with the consequent emotional impact. This may be further compounded when practitioners are isolated, through geography, distance from friends and family or by sheer workload and long hours, and where practitioners are working in the communities in which they live. Without acknowledging or managing this, as well as the potential for personal harm and burnout, the quality of care is adversely impacted.

Individual practitioners are encouraged to ensure they participate in activities that maintain their physical and mental health. This involves ensuring self-care during the working day and self-care activities outside work. The same as for our patients, this includes eating healthily, limiting alcohol intake, having regular physical activity and participating in enjoyable family and community activities, and ensuring we are connected to our own cultures. In addition, practitioners should consider psychological supervision, Balint groups (which discuss psychotherapeutic aspects of patient care) or peer support. However, all self-care activities require supportive environments, and members of the primary healthcare team will all benefit from looking after each other and working as a team to ensure that each team member feels valued and looked after. For the service as a whole, ensuring that staff are well and healthy, and are finding joy and meaning in their work, enhances the quality of care and services provided.[16]

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Chapter 20: Mental health

Depression

Dr Timothy Senior

Key messages

- Involvement in cultural and community activities supports and protects SEWB.[1]
- Healthcare practitioners should be aware of different symptoms and language that may describe depression in Aboriginal and Torres Strait Islander people.
- Healthcare practitioners should ask about symptoms of depression.[2]
- Although there is ongoing work to identify and develop culturally appropriate tools, clinical judgement is advised in the use of assessment tools for depression, and tools that have not been culturally adapted should be used with caution.
- Although further evidence is needed before most tools can be recommended for routine use, healthcare providers may still find them useful in promoting discussions with patients about their SEWB.

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
Aboriginal and Torres Strait Islander people aged over 15 years **Focus especially on:** • **pregnant and postpartum adults** • **people at higher risk of depression**	Ask about symptoms of depression If an assessment tool is used, it is recommended that one designed or adapted to include Aboriginal and Torres Strait Islander concepts of depression is used (see Useful resources)	Opportunistically and as clinically indicated	Conditional	International guidelines[2]
Preventive activity: Behavioural				
All people	No specific behavioural interventions are recommended Involvement in local community and cultural activities, and activities that connect people to other people, community, culture and Country, are likely to be beneficial	Ongoing	Good practice point	Aboriginal and Torres Strait Islander-specific cohort study[1]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medication				
All people	Do not prescribe medication for prevention of depression	N/A		
Preventive activity: Environmental				
All Aboriginal and Torres Strait Islander people	As per behavioural interventions Support access to and availability of a range of community and cultural activities	Ongoing	Good practice point	Aboriginal and Torres Strait Islander-specific cohort study[1]

Implementation tips

- Consider how the service can have good links in to the local Aboriginal and Torres Strait Islander community, and referral pathways to access community and cultural activities.
- Consider how to record risk factors for depression in the clinical record and use these as reminders to ask about symptoms of depression.
- Consider Aboriginal and Torres Strait Islander mental health first aid training for staff, particularly for non-clinical staff.
- Consider strengthening relationships with teachers, sports coaches and other community leaders to enhance the social and emotional wellbeing support in the community.
- Consider seeking continuing professional development training from a course run by Aboriginal and Torres Strait Islander mental health organisations and providers.
- Consider ongoing psychological supervision.

Useful resources

- Lifeline racgp.link/4gGrtm2
- Here and Now Aboriginal Assessment (HANAA) tool racgp.link/4dbHGfR
- Kessler-5 (K5) Psychological Distress Scale racgp.link/3XNdKSN
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- Menzies School of Health Research: Strong Souls assessment tool racgp.link/4eslU8N
- Kimberley Mum's Mood Scale racgp.link/3XKh15g
- Westerman Aboriginal Symptom Checklists
  - Adult checklist (WASC-A) racgp.link/4eeaqWU
  - Youth checklist (WASC-Y) racgp.link/4deYna9
- The Healing Foundation racgp.link/3ZWkIGP
- Resources for working with members of the Stolen Generations racgp.link/4ev8qsK
- General practitioner (GP) snapshot racgp.link/3zAuOCd
- GP fact sheet racgp.link/3MXcB4N
- Transforming Indigenous Mental Health and Wellbeing: Resources, fact sheets and research from an Aboriginal and Torres Strait Islander-led collaboration racgp.link/4etZDHz

- Blue Knot Foundation
  - Resources for health professionals and health services to apply a trauma lens to the work of individuals and organisations racgp.link/3B9k52k
  - *Talking about trauma* fact sheet for GPs and primary care providers racgp.link/3TDjgF9
  - *Understanding complex trauma* fact sheet for GPs racgp.link/3XRjhqz
  - *Working with complex trauma* fact sheet for health professionals racgp.link/3Tu4b8H
- *Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice*, 2nd edn racgp.link/3TCxqqe
- Beyond Blue: Aboriginal and Torres Strait Islander mental health resources racgp.link/3zAUDSC
- Black Dog Institute racgp.link/3XuBx8W
- eheadspace: online resource for young people wanting advice on mental health racgp.link/3zledCv
- Head to Health: Australian digital mental health resources racgp.link/3MR1lac
- General Practice Mental Health Mental Health Standards Collaboration
  - Training in mental health for GPs racgp.link/3TBhLHt
  - Resources for GPs racgp.link/3zpIKyS
- Maslach Burnout Inventories: A range of validated measures for various professionals to measure the degree of burnout in people working in frontline health and social services racgp.link/3TyGMTO

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Chapter 20: Mental health

Suicide: Recognising and responding to risk

Dr Timothy Senior

Key messages

- Involvement in cultural and community activities supports and protects SEWB.[1]
- Routine screening for suicide risk, or the use of current risk assessment scoring tools, is not recommended.[2–4]
- Healthcare practitioners should enquire about suicide plans in people identified as most at risk.[4]
- Evidence from population studies strongly suggests that improving access to primary healthcare services in general, and mental health services in particular, is associated with reduced suicide rates.
- Suicide prevention measures are only likely to succeed if they are developed and implemented by the local Aboriginal and Torres Strait Islander community.

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening				
All people	**Do not** routinely screen for suicide risk	N/A	Strong	International guidelines[4]
People with higher risk of suicide, including: • **previous suicide attempt or non-suicidal self-injury** • **anxiety disorders** • **post-traumatic stress disorder, including complex trauma** • **complex and compounded loss, including loss of freedom/incarceration, loss of identity, bereavement and separation** • **sexual abuse history** • **drug use disorders**	Use strength-based principles to guide a conversation about suicidal ideation, including specific plans for suicide or self-harm (see Box 1) Manage according to clinical judgement, relevant clinical guidelines and local community resources	Opportunistically and as clinically indicated	Good practice point	Meta-analysis[5]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Screening (continued)				
People after a recent suicide attempt or self-harm	Use strength-based principles to guide a conversation about suicidal ideation, including specific plans for suicide or self-harm Manage according to clinical judgement, relevant clinical guidelines and local community resources, including referral to/ connecting with traditional healers when available (see Centre of Best Practice in Aboriginal & Torres Strait Islander Suicide Prevention (CBPATSISP) Policy concordance in Useful resources)	As clinically indicated	Good practice point	Aboriginal and Torres Strait Islander-specific national guidelines[3]
People affected by recent suicide of a family member or friend	Use strength-based principles to guide a conversation about suicidal ideation, including specific plans for suicide or self-harm Manage according to clinical judgement, relevant clinical guidelines and local community resources	As clinically indicated	Good practice point	Aboriginal and Torres Strait Islander-specific national guidelines[3]
Preventive activity: Behavioural				
People after a suicide attempt or self-harm	Consider psychosocial interventions based on clinical judgement and availability and cultural appropriateness of local services (see Postvention programs in Useful resources)	As clinically indicated	Conditional	Systematic reviews[6,7] Aboriginal and Torres Strait Islander-specific report[8]
Preventive activity: Medication				
People with a mental health condition	Do not prescribe medication routinely for the purpose of reducing suicide and self-harm	N/A	Conditional	Systematic reviews[7,9]
Preventive activity: Environmental				
All Aboriginal and Torres Strait Islander people	Involvement in cultural and community activities	Ongoing	Good practice point	Aboriginal and Torres Strait Islander-specific cohort study[1]
Health service staff	Provide Aboriginal and Torres Strait Islander mental health first aid training or other similar gateway training	As required	Good practice point	Systematic review[10]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Environmental (continued)				
Health services and practices	Advocate for community-based strategies to remove access to lethal methods to self-harm both in the community and in the household	As required	Conditional	Systematic review[11]
Health services and practices	Advocate for community-led health promotion programs that holistically address the multifactorial nature of cultural, social and emotional wellbeing	As required	Good practice point	Aboriginal and Torres Strait Islander-specific cohort study[1] Aboriginal and Torres Strait Islander-specific report[8]
Health services and practices	**Do not** implement suicide prevention programs that are not led and codeveloped by the community	N/A	Strong	Aboriginal and Torres Strait Islander-specific report[8]

Box 1. Ways of asking about suicide

Questions to ask:

Have you ever felt like this before?

Have you ever felt so bad that you've hurt yourself or tried to kill yourself?

Many people when they feel this bad have thought about hurting themselves or even killing themselves. Has this happened to you?

Other people with similar problems sometimes lose hope. Has this happened to you?

Have you thought about how you would kill yourself?

Have you made any plans?

What stops you from doing that?

And, as a follow up question to many of the others, *Can you tell me more about that?*

Asking about suicide intent does not make it more likely.

Implementation tips

- Consider developing systems to record presentations with suicide attempts or self-harm behaviour in the clinical record, and how these patients are followed up systematically in your service.
- Consider ways of documenting and following up people who are impacted by the suicide of friends or family.
- Ensure the environment and interactions in the service are culturally safe, warm and welcoming to encourage disclosure of suicidal plans if they are present.
- Ask whether there are other members of the patient's* extended family who they may want to be involved or not involved in their care, because there may be cultural kinship relationships important for decision making.
- Find out about wellbeing and other support services for Aboriginal and Torres Strait Islander people in your region.

Useful resources

- The Centre of Best Practice in Aboriginal & Torres Strait Islander Suicide Prevention (CBPATSISP) racgp.link/3XxwCUt
  - Resources racgp.link/3Tzv1fH
  - Clearing house racgp.link/3zAvqYx
  - Postvention racgp.link/3TAX7aF
  - *Australian Indigenous suicide prevention policy concordance* racgp.link/3Xy4PDI
- Community-based suicide prevention planning, coordination and activity
  - National Aboriginal Community Controlled Health Organisation: Culture care connect racgp.link/3XyVACY
  - Aboriginal Health Council of South Australia: Culture care connect racgp.link/3zsPSKX
- Thirrili Ltd Indigenous suicide postvention service racgp.link/3Xsz1A1
- Royal Australian and New Zealand College of Psychiatrists: *Aboriginal and Torres Strait Islander mental health* racgp.link/3TyuRp0
- *Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice* racgp.link/3Txys6N
- Aboriginal and Torres Strait Islander Suicide Prevention Evaluation Project racgp.link/3TyIWTx
  - *Solutions that work: What the evidence and our people tell us evaluation report* racgp.link/3B8JOYJ
- Interactive maps of Indigenous suicide rates racgp.link/3Xz4uAi
- Language use about suicide and self harm racgp.link/3TBiatt
- General Practice Mental Health Standards Collaboration
  - *Suicide prevention and first aid: A resource for general practitioners* racgp.link/3XNolgw
  - *After suicide: resource for GPs* racgp.link/3XNhuUi

* Note that while acknowledging that some services may prefer the term 'client', this chapter uses the term 'patient'. This is consistent with the rest of the National Guide and does not change any of the recommendations.

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Chapter 21: Health impacts of climate change

Associate Professor Veronica Matthews, Professor Sarah Larkins

Key messages

- In the current climate emergency, Aboriginal and Torres Strait Islander communities are disproportionately exposed to environmental degradation, rising seas and extreme weather, unjustly compounding existing health and wellbeing inequities.[1]
- GPs and other primary healthcare professionals have a key role to play in preventing adverse health outcomes in their patients from climate change and extreme weather events and advocating for patient access to appropriate resources to reduce health risk. Consideration of the patient's context is needed in developing preventive health strategies in relation to climate change. This may include their location and potential climate hazards, demographics and disease profile, access to financial and social resources, including adequate housing, and access to cooling, power and refrigeration.[2]
- Best practice clinical care that holistically promotes physical, social and emotional wellbeing (SEWB), and includes activities that facilitate connection to and caring for Country, will support the health of patients, communities and the planet for future generations.[3,4]
- Practice recommendations centre on identifying patients at risk of climate change effects, educating patients on physical and mental health impacts from climate change events, designing risk-reduction strategies appropriate to patient context, helping patients and their families to prepare disaster plans and strong advocacy where necessary to improve environmental, social and cultural determinants of health.
- GPs and other primary healthcare professionals can also model behaviours that reduce carbon emissions and urge their profession and the broader health and political systems to adopt environmentally sustainable policies and practices.[5]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Immunisation				
All people	Ensure up-to-date tetanus immunisation for cover in case of floods and other extreme weather events	Opportunistically, during outbreaks	Good practice point	Scoping review[6]
All people	Ensure up-to-date COVID-19, pneumococcal and influenza vaccinations for those eligible	Opportunistically, seasonally and as clinically indicated	Strong	National guidelines[7]
People identified at high risk of emerging vaccine-preventable infections based on geography or occupation	Respond to any new regional, population or occupational recommendations for vaccinations (eg Japanese encephalitis)	Opportunistically, as clinically indicated, during outbreaks	Good practice point	Jurisdictional guidelines[8–10]
Preventive activity: Screening				
All people	Ask about and holistically assess vulnerability to heat waves and other extreme weather events Flag those with particular vulnerabilities in practice software and advocate where needed Offer check-ups by telehealth or home visit to avoid exposure at times of temperature extremes or high air pollution	Opportunistically	Good practice point	Peer-reviewed viewpoint article and peer-reviewed international policy document[11,12]
Preventive activity: Behavioural				
All people with chronic conditions (especially chronic obstructive pulmonary disease (COPD), asthma, other respiratory, renal, diabetes and cardiac disease), the frail and elderly (age over 65 years, or over 50 years if they have chronic conditions; see Box 1)	Monitor mental and physical health and wellbeing, hydration and renal function regularly, particularly at times of temperature extremes	Opportunistically, and at times of climate stress As per specific chronic disease management guidelines.	Strong	National guidelines[7,13]
All people	Be alert to increased risk of family violence (see Chapter 4: Child and family safety, Family abuse and violence)	Opportunistically and at times of heat stress	Good practice point	International Indigenous narrative review[14]
All people with a focus on young people	Assess mental health/social and emotional wellbeing using a culturally appropriate tool, including assessing climate anxiety	Opportunistically and when clinically indicated	Good practice point	Aboriginal and Torres Strait Islander-specific studies[15,16]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Behavioural (continued)				
People who are frail or elderly and those with chronic disease requiring regular medications	Ensure people are equipped with disaster management plan, including: • access to power and essential medicines (especially for those who are oxygen dependent) • an evacuation plan • important contacts, medication and health summary	Opportunistically, seasonally, as clinically indicated	Good practice point	Peer-reviewed viewpoint article and scoping review [6,17,18]
People with respiratory conditions (chronic suppurative lung disease, COPD, asthma)	Advise (and arrange if needed) to stay indoors in air conditioning on days of high air pollution Consider the provision of a home air pollution monitor or the use of self-management applications	Opportunistically, seasonally, as clinically indicated	Good practice point	Aboriginal and Torres Strait Islander-specific studies and general population study[19–21]
All people	Provide education and advice on sustainable living and small changes possible (eg low waste, active transport, low-/no-meat diet, renewable energy)	Opportunistically	Good practice point	National position statement[22]
People at risk of temperature extremes	Provide education and advice about the steps to take to mitigate the effects of extreme temperatures, including fluid intake, body cooling, modification of medications	Opportunistically at times of temperature extremes	Good practice point	Peer-reviewed viewpoint articles[2,18]
People who are elderly, those with respiratory disease and those most at risk from temperature extremes	Recommend telehealth consultations during times of temperature extremes or air pollution extremes to avoid environmental exposure during travel	Opportunistically at times of temperature extremes and poor air quality, as clinically indicated	Good practice point	Peer-reviewed viewpoint article[18]
All people	Promote opportunities for connecting to Country and mob	Opportunistically	Good practice point	Aboriginal and Torres Strait Islander-specific single studies and international framework on child health[4,23,24]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Medication				
All clients with chronic diseases and/or requiring regular medication	Conduct a medication review (ideally in the home) to assess temperature stability and storage conditions of prescribed medications, and adjust as needed	Opportunistically, as clinically indicated	Good practice point	Peer-reviewed viewpoint article and international PHC study[18,25]
People with chronic conditions, frail, aged or on multiple medications	Monitor hydration, postural blood pressure, symptoms and renal function for those at risk Use temperature-stable preparations of medications where possible	Opportunistically with extreme events	Good practice point	Narrative review[13]
Preventive activity: Environmental				
Practices and health services	Advocate at broader policy level for climate change action, self-determination, renewable energy, appropriate urban design and adequate housing for all	Opportunistically and ongoing	Good practice point	National position statement and international[9,22]
Practices and health services working with those most vulnerable to climate conditions	Advocate at the level of the individual patient, family or community for improved housing, access to stable power, refrigeration and access to adequate cooling	Opportunistic	Good practice point	Opinion piece[2]

Recommendations

Who/target population	What	When	Strength of recommendation	Key source(s) and reference(s)
Preventive activity: Environmental (continued)				
Health services and practices in settings where environmental and living conditions have strong contribution (environmental attribution) to communicable disease transmission and other conditions such as mental health issues	Know about diseases with a high environmental attribution Develop a safe clinical relationship in order to ask sensitively about housing and living conditions (inadequate housing facilities; access to affordable and reliable energy supply for refrigeration and air conditioning; access to health hardware, such as working plumbing for clean drinking water and washing facilities; access to hygiene and sanitation supplies) Know about local arrangements for environmental health referral Offer an environmental health referral according to local arrangements, ensuring consent is obtained when a home visit is involved Advocate with Aboriginal and Torres Strait Islander leaders for adequate housing, affordable and clean energy supply, facilities for washing and general living conditions Provide community-based health promotion about environmentally attributable diseases **Check local guidelines**	Opportunistically, in response to any diagnosis or condition with an environmental attribution and as part of general healthcare	Good practice point	International and Aboriginal and Torres Strait Islander-specific narrative reviews[26,27]

Box 1. Identifying patients at higher risk of health impacts during climate change events

At-risk patient characteristics

Demographics	Older people (aged >65 years), infants, young children, pregnant women and breastfeeding mothers
Chronic disease and risk factors	Heart disease, hypertension, chronic obstructive pulmonary disease, asthma, other respiratory diseases, diabetes, renal disease, obesity, poor cardiovascular fitness, mental illness, substance use addictions
Physical, sensory or intellectual disability	Poor mobility, autism, dementia, cognitive impairment, hearing impairment, visual impairment During heatwaves: conditions that impair sweating, such as cystic fibrosis, scleroderma, skin disorders
Medication/s	Beta-blockers, triptans, anticholinergics, sedating antihistamines, tricyclic antidepressants, phenothiazine antidopaminergic agents, selective serotonin uptake inhibitors, antipsychotic drugs, stimulants, sympathomimetics, diuretics
Social/environmental factors	Living alone, socially isolated, poor-quality housing or homelessness, insecure or prepaid electricity
Occupation/recreation	Outdoor workers, patients who exercise/play sport outside and school children who play outdoors

Implementation tips

Practice level: Practising with a climate lens

- Identify vulnerable patients with respect to climatic conditions and air pollution and add seasonal recalls and reminders for primary and secondary prevention. Including early advocacy by the GP in terms of appropriate housing, access to cooling and refrigeration and secure power supply for these individuals should be a priority. This register of at-risk patients could also be used to develop protocols for offering video or telephone visits, or home visits, rather than in-person visits, to avoid exposure on days with a high heat index or poor air quality.[2,25]
- For closer monitoring and medication reviews, ensure identification and flagging in patient information software of patients on multiple medications, medications that might be unstable in extreme weather conditions or those that predispose to adverse events in conditions of climatic extremes (eg diuretics, beta-blockers, anticholinergics).
- Use at-risk patient flags to automate the delivery of relevant disaster preparation and community service material for patients prior to GP appointments.[18]
- Incorporate questions (and appropriate advocacy, educational and healthcare delivery responses) about housing, energy security and knowledge of personal climate risk reduction strategies into annual health checks and chronic disease management plans for relevant patients.
- GPs and other key practice staff should participate in regional emergency and disaster planning, including planning around surge workforce and surveillance and response to communicable disease outbreaks.[6,28] Enlist key community leaders in this planning.[29] This should include appropriate clinical and pastoral checks for vulnerable people. Practices and health services may also need to consider the role of a surge workforce in providing in-home support following a disaster and possible digital literacy assessment for planning appropriate follow up and advice via telehealth.
- Provide training for all clinical and non-clinical staff in appropriate responses to climatic extremes, environmental change and health.
- Ensure training for all clinical practice staff (GPs, practice nurses, allied health professionals) in appropriate strategies for environmental health advocacy, awareness and promotion of vector distribution and immunisation recommendations and eligibility according to geography, occupation and vulnerability.[30]
- Add practice clinical audit and quality improvement activities for climate disaster preparedness at the practice and individual patient levels.

Personal level : Walk the talk

- Primary healthcare professionals can individually model physical and environmental health co-benefit strategies (eg walk or cycle rather than drive, eat less or no meat) and educate other professionals on environmentally friendly practices.[5,31]
- Think about environmental sustainability in all clinical decisions to reduce low-value care, medical waste and carbon emissions. Promote the circular use of resources (reduce, reuse, recycle).[32,33]
- Join an advocacy organisation such as Doctors for the Environment Australia or the Climate and Health Alliance (see Useful resources).[31,32]

Broader systems level: Public health advocacy

- In the past, medical professionals have advocated on important societal issues, such as tobacco control and increased resourcing for Aboriginal Community Controlled Health Organisations. The climate emergency is a critical health and social justice issue requiring immediate advocacy and action at all levels to protect Aboriginal and Torres Strait Islander patients and future generations.[32] Primary healthcare professionals can highlight the link between climate change and increasing demands on health services and expenditure to influence government policy.
  - Advocate for Aboriginal and Torres Strait Islander community inclusion in climate action and disaster risk reduction planning.
  - Continue advocating for ambitious government climate action policy and adequate resourcing of initiatives, such as the National Health and Climate Strategy (see Useful resources).
  - Promote green spaces in urban areas for community access to parks, shaded spaces and exercise areas.[11] This confers SEWB benefits and, if designed appropriately, can mitigate against urban island heat effects and improve neighbourhood air quality.[23]
- Advocate for improvements in community housing designs, to conform with building codes and standards,[34] along with strengthening of the other environmental determinants of health.
- Advocate for community input into housing design to align with local culture and environmental conditions.

Useful resources

Professional and advocacy organisations

- Climate and Health Alliance (CAHA) racgp.link/3Bb0DCh
- CAHA: *Healthy, regenerative and just: Framework for a national strategy on climate, health and wellbeing for Australia* racgp.link/3Bj0ufS
- Doctors for the Environment Australia (DEA) racgp.link/3zxiaUv
- Climate change in Australia: extensive climate data, projection tools and other resources racgp.link/3XxqnQF
- Seed: An Aboriginal and Torres Strait Islander youth climate network working with the Australian Youth Climate Coalition on climate justice for young people racgp.link/4dc9ktj
- Healthy Environments And Lives (HEAL) national research network racgp.link/3BlTL4M
- My Green Doctor: Tips for healthcare clinics on environmental sustainability and climate change racgp.link/4d6T3Ww
- Australian Conservation Foundation: Green clinic – tip sheet for greening practice clinics racgp.link/4dhU7Xr

Disaster preparation, response and recovery planning

- Red Cross: Resources to help individuals and communities prepare for disasters, including tools to create emergency plans and survival kits, and information on what people may experience after a crisis and how to manage it racgp.link/3Xy57Kr
- Phoenix Australia: Skills for Life Adjustment and Resilience (SOLAR) training for community members and healthcare workers to help people build skills to better look after themselves after extreme weather/traumatic events racgp.link/3zAvQ13
- Mental Health First Aid: Aboriginal and Torres Strait Islander mental health first aid courses racgp.link/4d7fhrv

Heatwaves

- Bureau of Meteorology heatwave assessment and alerts by state and territory racgp.link/3MQrfuU
- Victorian Government extreme heat information for clinicians racgp.link/4e32RSC
- South Australian Environment Department tips to keep households cool during summer months racgp.link/3BaOkFW

Bushfire smoke and air quality

- Series of downloadable factsheets on how to protect yourself and others from bushfire smoke, how to monitor local conditions, what bushfire smoke is and how harmful is it and taking care of mental health after bushfires racgp.link/3MR2mz2
- Lung Health for Kids app: Developed by the Menzies School of Health Research for Aboriginal and Torres Strait Islander children and families providing information on common respiratory conditions racgp.link/47NZQDD
- AirRater: A free app developed by Australian scientists that monitors small particulate matter (PM2.5) from smoke, traffic and industry and can help people with respiratory conditions avoid exposure and manage symptoms[20] racgp.link/4ethCxN
- Asthma Australia: Air quality (including pollen count) apps racgp.link/3TDk1ht

General resources

- Australian Government: *National health and climate strategy* – to ensure the health system meets the needs of Australians in the face of a changing climate racgp.link/3Tzvwq5
- *State of the environment report 2021*, Indigenous chapter racgp.link/3TXsXi7
- The Royal Australian College of General Practitioners (RACGP) online learning check topics, Unit 596 Planetary health (August 2022) racgp.link/4gv7Qx2

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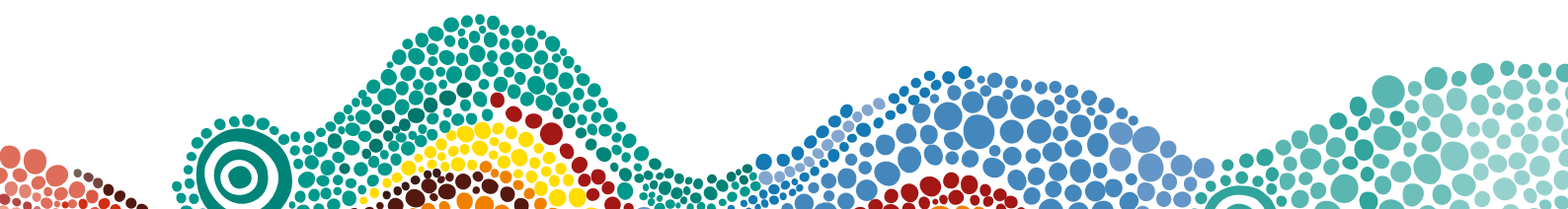


ACCHO	Aboriginal Community Controlled Health Organisation
13vPCV	13-valent pneumococcal conjugate vaccine
23vPPV	23-valent pneumococcal polysaccharide vaccine
AAH	Ask, Advise, Help
ACCO	Aboriginal Community Controlled Organisation
ACE	angiotensin-converting enzyme
ACEs	adverse childhood experiences
ACR	albumin:creatinine ratio
AD	Alzheimer's disease
ADHD	attention-deficit/hyperactivity disorder
AF	atrial fibrillation
AFP	α-Fetoprotein
AHP	Aboriginal health practitioner
Ahpra	Australian Health Practitioner Regulation Agency
AHW	Aboriginal health worker
AIDA	Australian Indigenous Doctors' Association
AIHCW	Aboriginal Immunisation Health Care Worker
AIHW	Australian Institute of Health and Welfare
AIR	Australian Immunisation Register
ALRI	acute lower respiratory infection
ANROWS	Australia's National Research Organisation for Women's Safety
Anti-HBc antibody	anti-hepatitis B core antibody
Anti-HBs antibody	anti-hepatitis B surface antibody
AOM	acute otitis media
APSGN	acute post-streptococcal glomerulonephritis
ARB	angiotensin II receptor blocker
ARF	acute rheumatic fever
ARI	acute respiratory illnesses
ASHM	Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine
ASQ	Ages & Stages Questionnaire
ASQ-3	Ages and Stages Questionnaire third edition
ATAGI	Australian Technical Advisory Group on Immunisation
ATSISPEP	Aboriginal and Torres Strait Islander Suicide Prevention Evaluation Project
AUD	alcohol use disorder

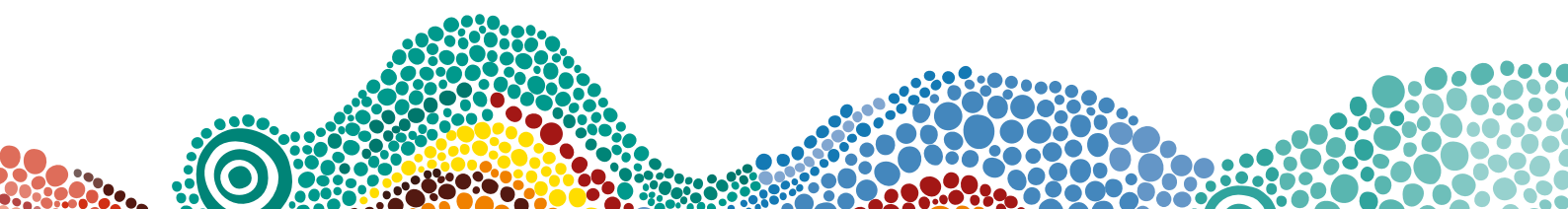
AUDIT-C	Alcohol Use Disorders Identification Test – Consumption
BBV	blood-borne virus
BMD	bone mineral density
BMI	body mass index
BP	blood pressure
BPG	benzathine penicillin G
CA	culturally adapted
CAC	coronary artery calcium
CBPATSISP	Centre of Best Practice in Aboriginal & Torres Strait Islander Suicide Prevention
CBT	cognitive behavioural therapy
CBT-i	cognitive behavioural therapy for insomnia
CDC	Centers for Disease Control and Prevention
CDNA	Communicable Diseases Network Australia
CG	culturally grounded
CKD	chronic kidney disease
CMV	cytomegalovirus
COMISA	comorbid insomnia and sleep apnoea
COPD	chronic obstructive pulmonary disease
COPD-X	Case finding and confirm diagnosis; Optimise function; Prevent deterioration; Develop a plan of care; Manage eXacerbations
CPAP	continuous positive airway pressure
CRAFFT	Car, Relax, Alone, Forget, Friends, Trouble
CSLD	chronic suppurative lung disease
CSOM	chronic suppurative otitis media
CT	computed tomography
CTFPHC	Canadian Taskforce on Preventive Health Care
CVD	cardiovascular disease
DAAs	direct-acting antivirals
DALY	disability-adjusted life year
DEXA	dual-energy X-ray absorptiometry
DMO	diabetic macular oedema
DR	diabetic retinopathy
DRE	digital rectal examination
DSM-5	Diagnostic and statistical manual of mental disorders, fifth edition
dTpa	diphtheria–tetanus–acellular pertussis adult vaccine

DTPa	diphtheria–tetanus–acellular pertussis child vaccine
ECG	electrocardiogram
ED	emergency department
eGFR	estimated glomerular filtration rate
ESKD	end-stage kidney disease
ESS	Epworth Sleepiness Scale
ETS	environmental tobacco smoke
EVALI	e-cigarette or vaping associated lung injury
FACED	Forced expiratory volume in 1 s [FEV1], Age; Chronic colonization by Pseudomonas aeruginosa, radiological Extension [number of pulmonary lobes affected], and Dyspnoea
FASD	fetal alcohol spectrum disorder
FAV	family abuse and violence
FBC	full blood count
FLAGS	Feedback, Listen, Advice, Goals, Strategies
FRAX®	Fracture Risk Assessment Tool
FROP	Falls Risk for Older People
GDM	gestational diabetes
GFR	glomerular filtration rate (measured)
GINA	Global Initiative for Asthma
GP	general practitioner
GPCOG	general practitioner assessment of cognition
HAANA	Here and Now Aboriginal Assessment
HATS	Hearing and Talking Scale
Hb	haemoglobin
HBsAg	hepatitis B s antigen
HBsAg	hepatitis B s antigen
HBV	hepatitis B virus
HCC	hepatocellular carcinoma
HCV	hepatitis C virus
HEEADSSS	Home, Education/Employment, Eating/Exercise, Activities, Drugs and alcohol, Sexuality, Suicide and depression, Safety
HER2	human epidermal growth factor receptor 2
Hib	haemophilus influenzae type b
HIV	human immunodeficiency virus
HPV	human papilloma virus

HRCT	high-resolution computed tomography
ICD-11	International classification of diseases 11th revision
IDA	iron deficiency anaemia
iFOBT	immunochemical faecal occult blood test
IMD	invasive meningococcal disease
IRIS	Indigenous Risk Impact Screen
IUD	intrauterine device
K10	Kessler Psychological Distress Scale
K5	Kessler-5 Psychological Distress Scale (five items)
KAHPF	Kimberley Aboriginal Health Planning Forum
KAS	Key Ages and Stages
KDIGO	Kidney Disease: Improving Global Outcomes
KICA	Kimberley Indigenous Cognitive Assessment
KICA screen	10-item version of the Kimberley Indigenous Cognitive Assessment
KICA-Cog	Cognitive assessment domain of the Kimberley Indigenous Cognitive Assessment
KMMS	Kimberly Mum's Mood Scale
LBC	liquid-based cytology
LDCT	low-dose computed tomography
LFTs	liver function tests
LGBTQIA+SB	Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual, Sistergirl, Brotherboy
LGBTQIA	Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual
MAFLD	metabolic dysfunction-associated fatty liver disease
MASLD	metabolic dysfunction-associated steatotic liver disease
MBS	Medicare Benefit Schedule
MenACWY	meningococcal ACWY
MenB	meningococcal B
MHT	menopausal hormonal therapy
MK-K5	Mayi Kuwayu modified K5 questionnaire
MRI	magnetic resonance imaging
MSM	men who have sex with men
NAAT	nucleic acid amplification test
NACCHO	National Aboriginal Community Controlled Health Organisation
NBCSP	National Bowel Cancer Screening Program
NCIRS	National Centre for Immunisation Research and Surveillance

NCSP	National Cervical Screening Program
NCSR	National Cancer Screening Register
NDIS	National Disability Insurance Scheme
NFP	Nurse–Family Partnership
NHMRC	National Health and Medical Research Council
NICE	National Institute for Heath and Care Excellence
NIP	National Immunisation Program
NIPT	non-invasive prenatal testing
NOFASD	National Organisation for FASD Australia
NREM	non-rapid eye movement
NRT	nicotine replacement therapy
NSAIDs	non-steroidal anti-inflammatory drugs
NSP	needle and syringe program
NSW	New South Wales
NT	Northern Territory
OM	otitis media
OME	otitis media with effusion
OOHC	out-of-home care
OSA	obstructive sleep apnoea
OSAS	obstructive sleep apnoea syndrome
PBS	Pharmaceutical Benefits Scheme
PEP	postexposure prophylaxis
PHQ-6	Patient Health Questionnaire
PLUM	Parent-evaluated Listening and Understanding Measure
POCT	point-of-care testing
PrEP	pre-exposure prophylaxis
PSA	prostate-specific antigen
RACGP	The Royal Australian College of General Practitioners
RANZCOG	Royal Australian and New Zealand College of Obstetricians and Gynaecologists
RCT	randomised controlled trial
RHD	rheumatic heart disease
RLS	restless legs syndrome
RR	relative risk
RUDAS	Rowland Universal Dementia Assessment Scale

s100	Section 100
SA	South Australia
SAFE	Surgery, Antibiotics, Facial cleanliness and Environmental improvement
SEWB	social and emotional wellbeing
SGLT2	sodium–glucose cotransporter 2
SMMSE	Standardised Mini-Mental State Examination
SNAICC	Secretariat of National Aboriginal and Islander Child Care (now known as SNAICC – National Voice for our Children)
SNRIs	serotonin–noradrenaline reuptake inhibitors
SSRIs	selective serotonin reuptake inhibitors
STI	sexually transmissible infection
STOP-BANG	Snoring Tired Observed Pressure BMI (>35) Age (>50) Neck (>40cm) Gender (Male)
SUD	substance use disorder
TATS	Talking About The Smokes
TESS	Top End Sleepiness Scale
TGA	Therapeutic Goods Administration
uACR	urinary albumin:creatine ratio
USPSTF	US Preventive Service Task Force
UTI	urinary tract infection
VUR	vesicoureteric reflux
WA	Western Australia
WHO	World Health Organization
WoTWoD	Ways of Thinking, Ways of Doing



RACGP
Royal Australian College of General Practitioners

NACCHO
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