Australian Government
Australian Institute of
Health and Welfare

National Strategic Framework for Chronic Conditions: reporting framework

National Strategic Framework for Chronic Conditions: reporting framework

Australian Institute of Health and Welfare Canberra

Cat. no. PHE 298

The AIHW is an independent statutory Australian Government agency producing authoritative and accessible information and statistics to inform and support better policy and service delivery decisions, leading to better health and wellbeing for all Australians.

ISBN 978-1-76054-931-2 (Online)
ISBN 978-1-76054-932-9 (Print)
DOI: 10.25816/ydrq-gt74

Suggested citation

Australian Institute of Health and Welfare (2022) *National Strategic Framework for Chronic Conditions: reporting framework*, catalogue number PHE 298, AIHW, Australian Government.

Any enquiries about or comments on this publication should be directed to:
Australian Institute of Health and Welfare
GPO Box 570
Canberra ACT 2601
Tel: (02) 6244 1000
Email: info@aihw.gov.au

Published by the Australian Institute of Health and Welfare.

Please note that there is the potential for minor revisions of data in this report. Please check the online version at www.aihw.gov.au for any amendments.

Contents

Reporting framework indicators vi

Introduction....1

Purpose 4

Development 5

Structure 9

Objective 1: Focus on prevention for a healthier Australia....10

Objective 2: Provide efficient, effective and appropriate care to support people with chronic conditions to optimise quality of life 12

Objective 3: Target priority populations....14

Data gaps 16

Partnerships for health 16

Critical life stages....17

Timely and appropriate detection and intervention 17

Continuity of care 17

Information sharing, and supportive systems 17

Priority populations....17

Using the reporting framework 19

Audience....19

Stewardship....19

Potential uses 19

Data management 20

Indicator results report 21

Indicator specifications....22

Objective 1: Focus on prevention for a healthier Australia....23

1. Low income....23
2. Educational attainment 25
3. Employment-to-population ratio....26
4. Smoking during pregnancy....28
5. Low birthweight 30
6. Alcohol consumption....31
7. Smoking 33

8. Insufficient physical activity........34
9. Inadequate fruit and/or vegetable consumption........36
10. Sodium intake........38
11. High blood pressure........39
12. Abnormal blood lipids........41
13. Raised blood glucose levels........42
14. Overweight and obesity........43
15. High/very high levels of psychological distress........44
16. Prevalence of mental illness........46
17. Prevalence of heart, stroke and vascular disease........48
18. Incidence of heart attacks (acute coronary events)........49
19. Incidence of stroke........50
20. Prevalence of type 2 diabetes........51
21. Prevalence of chronic respiratory conditions........52
22. Prevalence of musculoskeletal conditions........54
23. Incidence of selected cancers........56
24. Non-fatal Burden of Disease (YLD) rate for selected chronic conditions....58
25. Disability-adjusted life years (DALY) rate for selected chronic conditions..60
26. Dental visit in last 12 months........62
27. HPV immunisation rate........64
28. Breast cancer screening rates........65
29. Bowel cancer screening rates........66
30. Cervical cancer screening rates........68
Objective 2: Provide efficient, effective and appropriate care to support people with chronic conditions to optimise quality of life........69
31. Health literacy........69
32. People deferring access to selected healthcare due to cost........71
33. Patient satisfaction/experience with GPs........72
34. Waiting times for GPs........73
35. Full time equivalent health workforce........74
36. Effective management of diabetes........75
37. Potentially preventable hospitalisations for chronic conditions........77

38. Radiotherapy waiting times 82
39. Post-discharge community mental health care 83
40. Multimorbidities 85
41. Prevalence of treated end-stage kidney disease among people with diabetes 87
42. Hospitalisation for lower-limb amputation with type 2 diabetes as a principal or additional diagnosis 88
43. 5-year relative survival for selected cancers 89
44. Potentially avoidable deaths for selected chronic conditions 91
45. Fatal Burden of Disease (YLL) rate for selected chronic conditions 93

Objective 3: Target priority populations 95

Success statement 1: Priority populations have reduced risk of developing chronic conditions 95

Success statement 2: Priority populations experience fewer complications, multimorbidities or disabilities associated with chronic conditions 95

Success statement 3: Aboriginal and Torres Strait Islander people have reduced risk of developing chronic conditions and those with chronic conditions have an improved life expectancy 95

Appendix A: Expert consultation 96

Appendix B: NSFCC and WHO reporting 97

Appendix C: Data sources 104

Acknowledgements 114

Abbreviations 116

References 119

Reporting framework indicators

The *National Strategic Framework for Chronic Conditions (NSFCC): reporting framework* contains 45 indicators, listed in table 1 below, with detailed specifications provided later in the report

Table 1: Indicators for NSFCC: reporting framework

Objective 1: Focus on prevention for a healthier Australia

1. Low income
2. Educational attainment
3. Employment-to-population ratio
4. Smoking during pregnancy
5. Low birthweight
6. Alcohol consumption
7. Smoking
8. Insufficient physical activity
9. Inadequate fruit and/or vegetable consumption
10. Sodium intake
11. High blood pressure
12. Abnormal blood lipids
13. Raised blood glucose levels
14. Overweight and obesity
15. High/very high levels of psychological distress
16. Prevalence of mental illness
17. Prevalence of heart, stroke and vascular diseases
18. Incidence of heart attacks (acute coronary events)
19. Incidence of stroke
20. Prevalence of type 2 diabetes
21. Prevalence of chronic respiratory conditions
22. Prevalence of musculoskeletal conditions
23. Incidence of selected cancers
24. Non-fatal Burden of Disease (YLD) rate for
25. Disability-adjusted life years (DALY) rate for
26. Dental visit in last 12 months
27. HPV immunisation rate
28. Breast cancer screening rates
29. Bowel cancer screening rates
30. Cervical cancer screening rates

Objective 2: Provide efficient, effective and appropriate care to support people with chronic conditions to optimise quality of life

31. Health literacy
32. People deferring selected health care due to cost
33. Patient satisfaction/experience with GPs
34. Waiting times for GPs
35. Full time equivalent health workforce
36. Effective management of diabetes
37. Potentially preventable hospitalisations for chronic conditions
38. Radiotherapy waiting times
39. Post-discharge community mental health care
40. Multimorbidities
41. Prevalence of treated end-stage kidney disease among people with diabetes
42. Hospitalisation for lower-limb amputation with type 2 diabetes as a principal or additional diagnosis
43. 5-year relative survival for selected cancers
44. Potentially avoidable deaths for selected chronic conditions
45. Fatal Burden of Disease (YLL) rate for selected chronic conditions

Objective 3: Target priority populations

Disaggregation of selected Objective 1 and 2 indicators, focussing on:

- Aboriginal and Torres Strait Islander people
- Older Australians
- People experiencing socioeconomic disadvantage
- People living in remote, or rural and regional locations

Introduction

The National Strategic Framework for Chronic Conditions (NSFCC) was agreed by all health ministers, and publicly released in May 2017 to respond to the current and future challenges presented by chronic conditions. It is the overarching policy for the prevention and management of chronic conditions in Australia.

The NSFCC provides guidance for the development and implementation of policies, strategies, actions and services to achieve the vision that:

> ***'All Australians live healthier lives through effective prevention and management of chronic conditions' (AHMAC 2017).***

The NSFCC is supported by three Objectives:

1. Focus on prevention for a healthier Australia.
2. Provide efficient, effective and appropriate care to support people with chronic conditions to optimise quality of life.
3. Target priority populations.

Each Objective has descriptions of success in preventing and managing chronic conditions, termed 'success statements' (Box 1). The Objectives are supported by Strategic Priority Areas, which are the core areas where attention should be focussed in order to achieve these Objectives.

Figure 1 illustrates the relationship between the components of the NSFCC and depicts the essential elements that interact to guide policies, strategies, actions and services.

Measuring progress

Policies, programs and initiatives that aim to prevent, reduce or better manage chronic conditions require accurate and reliable information to identify areas for intervention, assess success or failure and measure progress.

Consultation during development of the NSFCC highlighted the need for monitoring progress in a consistent manner and informed by a nationally agreed set of performance measures which, where possible, align with Australia's international reporting commitments. Because of the complexities associated with the prevention and management of chronic conditions, there is no single indicator to monitor progress against the NSFCC.

A framework of standardised indicators provides the signposts that are needed by partners to measure key aspects of chronic condition prevention and control. Such frameworks are recognised as important elements of healthcare improvement.

At its 2 December 2016 meeting, the Australian Health Ministers' Advisory Council (AHMAC) endorsed the NSFCC and agreed to the development of a reporting mechanism that allows for the monitoring of progress toward meeting the Objectives of the NSFCC.

In mid-2018, the Australian Government Department of Health tasked the Australian Institute of Health and Welfare (AIHW) with developing the NSFCC: reporting framework, in partnership with states and territories under the auspice of the AHMAC.

Box 1: NSFCC Objectives and success statements

1 Focus on prevention for a healthier Australia

1.1 The proportion of Australians living with preventable chronic conditions or associated risk factors is reduced

1.2 Australia meets the voluntary global targets outlined in the *WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020*

1.3 Australians with chronic conditions, or associated risk factors, develop them later in life and receive timely interventions to achieve optimal health outcomes

2 Provide efficient, effective and appropriate care to support people with chronic conditions to optimise quality of life

2.1 Australians with chronic conditions receive coordinated, person-centred and appropriate care

2.2 Australians experience fewer complications, multimorbidities or disabilities associated with chronic conditions

2.3 Fewer Australians die prematurely due to specific chronic conditions

3 Target priority populations

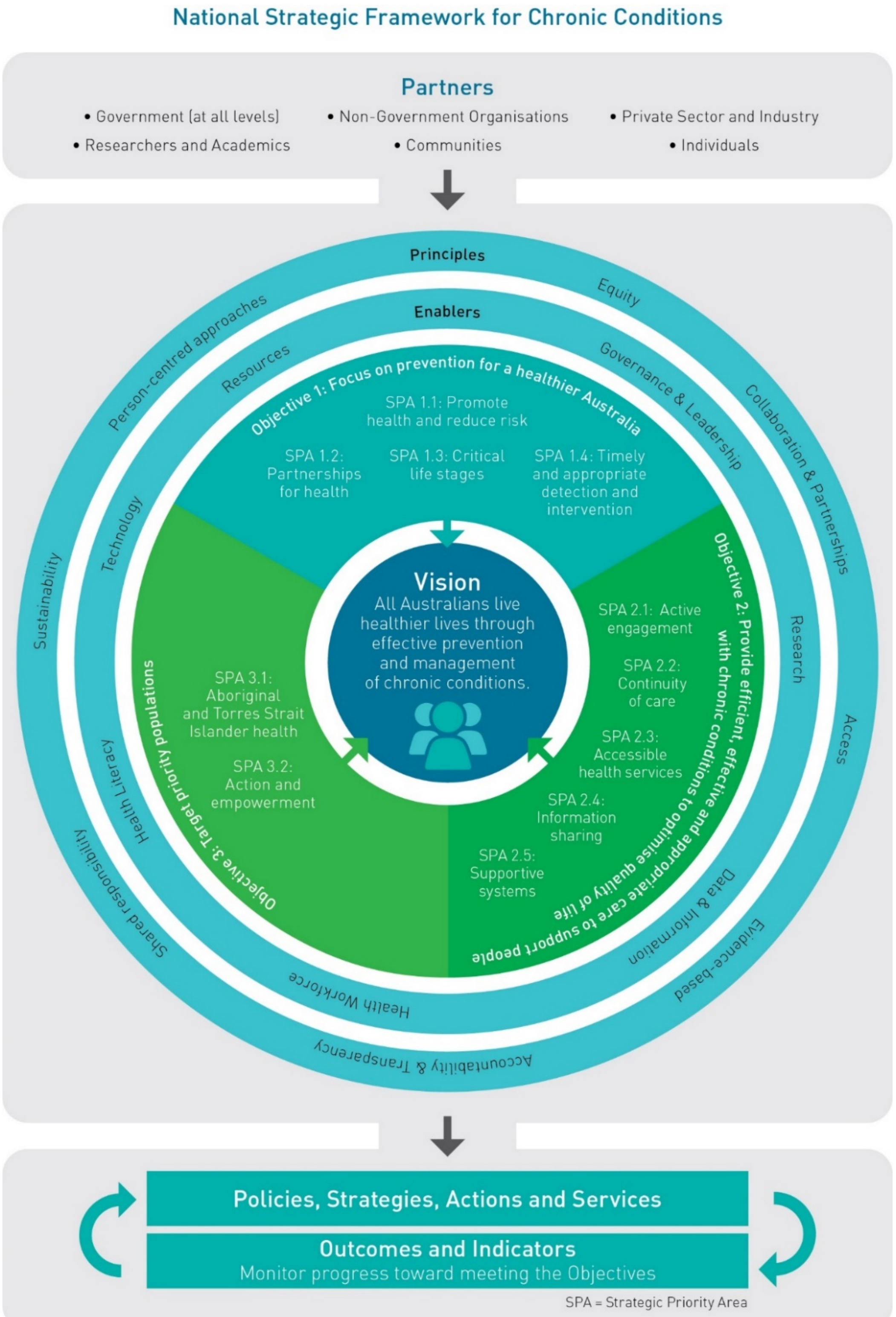
3.1 Priority populations have reduced risk of developing chronic conditions

3.2 Priority populations experience fewer complications or multimorbidities associated with chronic conditions

3.3 Aboriginal and Torres Strait Islander people have reduced risk of developing chronic conditions and those with chronic conditions have an improved life expectancy

Source: AHMAC 2017.

Figure 1: Concept map of the National Strategic Framework for Chronic Conditions



Source: AHMAC 2017.

Purpose

This reporting framework has been developed to provide an appropriate set of indicators to allow progress against the three Objectives of the NSFCC to be monitored in a consistent and comparable manner.

The reporting framework is a reference tool that provides readers with:

- recommended data sources for reporting
- availability of data
- presentation of indicators.

The reporting framework also describes the processes undertaken in developing the indicator set, including the stakeholder consultation process.

The reporting framework is flexible by design, to meet the needs of multiple audiences, populations and levels of the health system. It does this through tiering and disaggregation of data across the three Objectives of the NSFCC.

The reporting framework complements a range of other disease-, population- and sector-specific health frameworks which include information relevant to the monitoring of chronic conditions. These frameworks include the Australian Health Performance Framework (AHPF), the Australian National Diabetes Strategy, the Fifth National Mental Health and Suicide Prevention Plan, the Australian National Breastfeeding Strategy, Australia's National Oral Health Plan, and the Aboriginal and Torres Strait Islander Health Performance Framework.

The intention of the reporting framework is that it be responsive to new data and indicator development, with the scope for revision, addition and deletion of existing indicators.

Over time, the reporting framework should be linked to the Australian Health Performance Framework, which has primacy for system-wide reporting on Australia's health and health care performance.

Development

During development of the NSFCC, the AIHW was requested to undertake an indicator mapping process—including identifying potential data sources—to suggest example indicators that would inform progress against the NSFCC Objectives, success statements and Strategic Priority Areas.

AIHW undertook a stocktake and assessment of chronic conditions indicators within key national and international health frameworks in 2015–2016. The frameworks drawn on are summarised in Box 2.

Box 2: Key health frameworks and reporting relevant to chronic conditions, 2015–2016

National	**International**
National Health Performance Framework (NHPF)	Canada: Chronic Disease Indicator Framework
National Health Reform Agreement Performance and Accountability Framework (NHRA PAF)	United Kingdom: NHS Outcomes Framework 2015/16; Richmond Group of Charities.
Review of Government Service Provision (RoGS)	United States: Indicators for chronic disease surveillance
National Healthcare Agreement (NHA)	World Health Organization (WHO): Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020
Aboriginal and Torres Strait Islander Health Performance Framework	Organisation for Economic Co-operation and Development (OECD): *Health at a Glance* report
National Indigenous Reform Agreement (NIRA)	
Primary Health Network headline performance indicators	
National Chronic Disease Strategy 2005	
Australian Health Policy Collaboration reports	

The approach of using existing indicators made best possible use of the substantial investment in indicator development that had already occurred across the Australian health system.

Existing health frameworks included indicators which had been previously endorsed for measuring aspects of chronic condition prevention and control. The example indicators selected from these frameworks made best use of available information to monitor the impact of collective action on chronic conditions.

The stocktake and assessment process identified around 90 example indicators that could be used to measure progress against the NSFCC's three Objectives.

The example indicators were endorsed by the National Strategic Framework for Chronic Conditions Reporting Project Working Group (also referred to as the Jurisdictional Working Group), established under the then Community Care and Population Health Principal Committee of the AHMAC, to contribute to the development of the NSFCC.

The example indicators were published in the *National Strategic Framework for Chronic Conditions* (AHMAC 2017).

Selection criteria

The selection of example indicators was guided by a set of criteria to allow for their rigorous assessment, summarised in Box 3.

Box 3: Criteria for selection of NSFCC example indicators

1. Be relevant
2. Be applicable across population groups
3. Be technically sound (valid, reliable, sensitive to change over time, and robust)
4. Be feasible to collect and report
5. Lead to action (at various population levels, for example, individual, community, organisation/agency)
6. Be timely
7. Be marketable

Note: The order of criteria does not indicate priority.

Sources: COAG Health Council 2012, AIHW 2011.

It was not anticipated that each criterion would be met for every indicator; rather, the selection criteria provided guidance for the development and continual improvement of the entire set of indicators.

In addition to these criteria, two key requirements were that indicators should be suitable for reporting in an Australian context, and that data should currently exist to inform routine monitoring and reporting.

Example indicators drawn from national frameworks met these criteria and requirements. A small number of candidate indicators from other sources, and from international frameworks, were also assessed, and met these criteria and requirements.

In most instances, these indicators had both an agreed technical specification and an existing data source to support reporting, although not always on a consistent and regular basis.

Development and refinement

The NSFCC identified 90 example indicators that were relevant for measuring progress against each of its Objectives. This set of 90 indicators has been refined to allow for practical, feasible and meaningful monitoring of progress against each of the Objectives of the NSFCC. The principles used for indicator selection in the 2015–2016 stocktake were adopted for this task.

The indicator selection and refinement process was also informed by a conceptual analysis of relationships between indicators, and how the indicators relate to the Objectives of the NSFCC. This guards against reporting on irrelevant or insufficient data and informs the reporting template to allow for meaningful comparison between reports.

Consultation was undertaken at a number of levels during the indicator selection process:

- Internal AIHW consultation, conducted October 2018–February 2019. Expertise was co-opted from all areas of the AIHW responsible for reporting on specific chronic conditions, priority populations, and health frameworks and systems.
- External consultation conducted December 2018–January 2019. The external consultation drew on Members of AIHW's Expert Advisory Groups who were associated with chronic conditions, along with the Australian Bureau of Statistics. These stakeholders included representatives from government, states and territories, relevant peak bodies, clinical experts, health professionals, academics and consumer representatives. A listing of participants appears in *Appendix A*.
- The Jurisdictional Working Group, at their meeting held on 19 December 2018. Members were senior officials from each of the state, territory and Australian Government Health Departments, including the National Aboriginal and Torres Strait Islander Health Standing Committee (NATSIHSC).

The consultations drew attention to additional health frameworks related to chronic conditions monitoring which were under development or had been developed since 2015–2016 including the Australian Health Performance Framework.

The consultation and shortlisting process resulted in a set of 45 indicators. These form the basis of the NSFCC: reporting framework.

Further consultation was undertaken on the draft reporting framework, including internal consultation within the Australian Government Department of Health across a range of policy areas in March–April 2019, followed by a review by the Jurisdictional Working Group in April 2019. The reporting framework and an example indicator results report were endorsed out-of-session by the then Health Services Principal Committee (HSPC) in July 2019. These products were provided to AHMAC in October 2019, with out-of-session endorsement finalised in April 2020.

Structure

The structure of the reporting framework aligns with the concept map of the NSFCC (Figure 1). The concept map identifies the information domains that are relevant to monitoring the development of chronic conditions, and to understanding the contextual factors that impact on chronic conditions prevention and treatment.

Central to the vision of the NSFCC are its three Objectives and their accompanying success statements. Indicators in the reporting framework enable progress to be monitored against each Objective in a consistent and comparable manner.

This section outlines the mapping of indicators to each Objective and success statement. Some indicators inform more than one success statement. Detailed specifications for each indicator are provided in the section *Indicator specifications*. The specifications provide a description and definition of the indicator, a rationale for its inclusion, its calculation, an indicative data source, issues associated with using the indicator, and suggested interpretation of the indicator.

A *Data Gaps* section provides information on where further development work is required to allow for better monitoring of progress against the NSFCC Objectives.

Objective 1: Focus on prevention for a healthier Australia

30 indicators monitor progress against this Objective, distributed as follows:

Success Statement 1: The proportion of Australians living with preventable chronic conditions or associated risk factors is reduced

25 indicators monitor this success statement.

The indicators describe key social and environmental determinants, maternal and child health risk and protective factors, individual behavioural and biomedical risk and protective factors, and status and outcomes for chronic conditions.

The conditions which are the focus of monitoring represent those that have substantial impact in terms of prevalence, hospitalisations, mortality, cost, and/or disease burden, and for which quality national data are available.

Success Statement 2: Australia meets the voluntary global targets outlined in the WHO *Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020*

10 indicators monitor this success statement.

The indicators relate to a set of nine voluntary global targets developed by WHO to track the implementation of the action plan.

An assessment of their suitability for reporting appears in *Appendix B*.

Success Statement 3: Australians with chronic conditions, or associated risk factors, develop them later in life and receive timely interventions to achieve optimal health outcomes

5 indicators monitor this success statement, as well as disaggregations, where feasible, of selected indicators in success statement 1.

The indicators describe timely and appropriate detection and intervention for chronic conditions.

Table 2: Indicators to monitor progress for Objective 1

Indicator	Success statement	Data source
1. Low income	1.1 3.1 3.3	Survey of Income & Housing (various years)
2. Educational attainment	1.1 3.1 3.3	Survey of Education & Work (various years)
3. Employment-to-population ratio	1.1 3.1 3.3	Labour Force Survey (various years)

(continued)

Table 2 (continued): Indicators to monitor progress for Objective 1

4. Smoking during pregnancy	1.1 3.3	National Perinatal Collection
5. Low birthweight	1.1 3.3	National Perinatal Collection
6. Alcohol consumption	1.1 1.2 3.1 3.3	National Health Survey (various years)
7. Smoking	1.1 1.2 3.1 3.3	National Health Survey (various years); Australian Secondary Students' Alcohol and Drug Survey (ASSAD) 2017
8. Insufficient physical activity	1.1 1.2 3.1 3.3	National Health Survey (various years)
9. Inadequate fruit and/or vegetable consumption	1.1 1.2 3.1 3.3	National Health Survey (various years)
10. Sodium intake	1.1 1.2 3.3	Australian Health Survey 2011–12
11. High blood pressure	1.1 1.2 3.1 3.3	National Health Survey (various years)
12. Abnormal blood lipids	1.1 1.2 3.3	Australian Health Survey 2011–12
13. Raised blood glucose levels	1.1 1.2 3.1 3.3	Australian Health Survey 2011–12
14. Overweight and obesity	1.1 1.2 3.1 3.3	National Health Survey (various years)
15. High/very high levels of psychological stress	1.1 3.3	National Health Survey (various years)
16. Prevalence of mental illness	1.1	National Survey of Mental Health & Wellbeing 2007; Australian Child and Adolescent Survey of Mental Health and Wellbeing, 2013–14
17. Prevalence of heart, stroke and vascular diseases	1.1 3.1 3.3	National Health Survey (various years)
18. Incidence of heart attacks (acute coronary events)	1.1 3.3	National Hospital Mortality Database & National Mortality Database
19. Incidence of stroke	1.1 3.3	National Hospital Mortality Database & National Mortality Database
20. Prevalence of type 2 diabetes	1.1 1.2 3.1 3.3	National Health Survey (various years)
21. Prevalence of chronic respiratory conditions	1.1 3.1 3.3	National Health Survey (various years)

(continued)

Table 2 (continued): Indicators to monitor progress for Objective 1

22. Prevalence of musculoskeletal conditions	1.1 3.1 3.3	National Health Survey (various years)
23. Incidence of selected cancers	1.1 1.2 3.3	Australian Cancer Database
24. Non–fatal Burden of Disease (YLD) rate for selected chronic conditions	1.1 3.3	Australian Burden of Disease Database
25. Disability–adjusted life years (DALY) rate for selected chronic conditions	1.1 3.3	Australian Burden of Disease Database
26. Dental visit in last 12 months	1.3	ABS Patient Experience Survey (various years)
27. HPV immunisation rate	1.2 1.3	Australian Immunisation Register
28. Breast cancer screening rates	1.3	State and territory BreastScreen register data
29. Bowel cancer screening rates	1.3	National Bowel Cancer Screening Program register
30. Cervical cancer screening rates	1.2 1.3	National Cancer Screening Register data

Objective 2: Provide efficient, effective and appropriate care to support people with chronic conditions to optimise quality of life

15 indicators monitor progress against this Objective, distributed as follows:

Success Statement 1: Australians with chronic conditions receive coordinated, person-centred and appropriate care

9 indicators monitor this success statement.

The indicators focus on health literacy, potentially preventable hospitalisations, barriers to accessing care, treatment adherence, community follow-up and patient satisfaction.

Success Statement 2: Australians experience fewer complications, multimorbidities or disabilities associated with chronic conditions

3 indicators monitor this success statement.

The indicators focus on chronic condition multimorbidity, and on complications associated with diabetes.

Success Statement 3: Fewer Australians die prematurely due to specific chronic conditions

3 indicators monitor this success statement.

The indicators focus on potentially avoidable deaths, the Fatal Burden of Disease (YLL) measure derived from the Australian Burden of Disease Study, and on five–year relative survival rates for selected cancers.

Table 3: Indicators to monitor progress for Objective 2

Indicator	Success statement	Data source
31. Health literacy	2.1	Adult Literacy and Life Skills Survey 2006
32. People deferring selected health care due to cost	2.1	Patient Experience Survey (various years)
33. Patient satisfaction/ experience with GPs	2.1	Patient Experience Survey (various years)
34. Waiting times for GPs	2.1	Patient Experience Survey (various years)
35. Full time equivalent health workforce	2.1	Department of Health National Health Workforce Data Set 2018
36. Effective management of type 2 diabetes	2.1	Australian Health Survey 2011–12
37. Potentially preventable hospitalisations for chronic conditions	2.1	National Hospital Morbidity Database
38. Radiotherapy waiting times	2.1	Radiotherapy waiting times National Minimum Data Set
39. Post–discharge community mental health care	2.1	State and territory admitted patient data; Community mental health care data
40. Multimorbidities	2.2 3.2	National Health Survey (various years)
41. Prevalence of treated end–stage kidney disease among people with diabetes	2.2 3.2	Australian and New Zealand Dialysis and Transplant Registry
42. Hospitalisations for lower-limb amputation with type 2 diabetes as a principal or additional diagnosis	2.2 3.2	National Hospital Morbidity Database
43. Five–year relative survival for selected cancers	2.3	Australian Cancer Database

(continued)

Table 3 (continued): Indicators to monitor progress for Objective 2

44. Potentially avoidable deaths for selected chronic conditions	2.3 3.3	National Mortality Database
45. Fatal Burden of Disease (YLL) rate for selected chronic conditions	2.3 3.3	Australian Burden of Disease Database

Objective 3: Target priority populations

The NSFCC identifies a number of populations that are disproportionally affected by chronic conditions.

These priority populations include, but are not limited to:

- Aboriginal and Torres Strait Islander people
- people from culturally and linguistically diverse backgrounds
- older Australians
- carers of people with chronic conditions
- people experiencing socio-economic disadvantage
- people living in remote, or rural and regional locations
- people with disability
- people with mental illness
- people who are, or have been incarcerated.

Ideally, each population requires a unique set of indicators to monitor their experience of chronic conditions. Indicators within existing frameworks partly meet this need.

To limit the number of indicators, and to ensure manageability of reporting, no unique indicators were selected for this reporting framework. Rather, data in indicators developed for Objectives 1 and 2 will be disaggregated at a population level.

This approach is feasible for the following populations:

- Aboriginal and Torres Strait Islander people
- older Australians
- people experiencing socio-economic disadvantage
- people living in remote, or rural and regional locations.

Suggestions for disaggregation have been limited to these four populations. Further data development will be needed to comprehensively report on other priority populations.

A full assessment of potential disaggregations of data by priority population appears in the section with the indicator specifications.

Success Statement 1: Priority populations have reduced risk of developing chronic conditions

Disaggregation, where feasible, of selected indicators in Objectives 1 and 2.

Success Statement 2: Priority populations experience fewer complications or multimorbidities associated with chronic conditions

Disaggregation, where feasible, of selected indicators in Objectives 1 and 2.

Success Statement 3: Aboriginal and Torres Strait Islander people have reduced risk of developing chronic conditions and those with chronic conditions have an improved life expectancy

Disaggregation, where feasible, of selected indicators in Objectives 1 and 2.

Data gaps

A number of areas of the NSFCC lack data to adequately monitor progress.

Currently, Australian health information has:

- limited national primary health care data
- limited data on the incidence and prevalence of important chronic conditions, including mental health, and dementia
- an absence of disease registers or nationally linked data to examine pathways in care, in particular the associations between diagnosis, health service utilisation and health outcomes
- limited data on timeliness of interventions and the appropriateness of care and health across the life-course
- no regular collection of measured biomedical risk factor data for chronic diseases
- infrequent national nutrition surveys.

Advances in linked data, primary care data and eventually digital health record data may improve the data available to report against the NSFCC.

Not all of the areas in the NSFCC can be measured with quantitative indicators alone. In future, it may be necessary to consider the inclusion of appropriate qualitative indicators to enhance progress monitoring against the Objectives of the NSFCC.

Data gaps affect the following areas:

Partnerships for health

Successful partnerships for health is a key guiding principle of the NSFCC. Limited data exist to identify these partnerships.

Possible information sources include Commonwealth-State healthcare agreements including coordination of care arrangements developed under Council of Australian Governments (COAG), Department of Health records, National Health and Medical Research Council (NHMRC) grants collecting Primary Health Network information on program reporting, evidence of relevant cross-sectoral committees and partnerships, or Health in all Policies agreements for inter-sectoral partnerships in selected jurisdictions.

Additional data sources will need to be identified for State/Territory or local government partnerships, partnerships with non-government organisations, peak bodies, industry, schools, workplaces and communities.

Qualitative reporting might best inform the monitoring of this area.

Critical life stages

Critical life stages are a key focal area in the NSFCC.

Several indicators monitor early life stages, notably on maternal health and on children's health. In addition, older Australians have been identified as a priority population in the NSFCC.

The approach taken in this framework is to disaggregate indicators by age groups.

Ideally, the monitoring of chronic conditions at critical life stages requires longitudinal data. Current indicators rely on cross-sectional, rather than longitudinal data.

Further exploration of the utility of longitudinal studies for indicator reporting could be undertaken, although these studies generally do not cover the entire life course.

Timely and appropriate detection and intervention

Several indicators focus on cancer screening and diagnosis, with both underpinned by national policy and ongoing monitoring. There is a lack of defined indicators and data for screening and diagnosis of other chronic conditions.

Timely intervention is difficult to measure. Age of disease onset, for example is subject to difficulties in interpretation. Effective policy for chronic conditions will lead to earlier detection, resulting in what appears to be earlier disease onset.

Continuity of care

Data are lacking for ongoing monitoring of coordinated/integrated care, and transition points across the health system. In future, the use of linked data will benefit monitoring in this area.

This theme is closely related to accessible health services and indicators developed under either of these themes will potentially benefit the monitoring of both.

Information sharing, and supportive systems

Both of these areas require data development.

Priority populations

The reporting framework focusses on monitoring progress among four priority populations—Aboriginal and Torres Strait Islander people, older Australians, people experiencing socio-economic disadvantage, and people living in remote, or rural and regional locations.

Data are not available for most indicators among other identified priority populations—including people from culturally and linguistically diverse backgrounds, carers of people with chronic conditions, people with disability, people with mental illness and people who are or have been incarcerated.

Using the reporting framework

This section discusses matters surrounding the utility and maintenance of the NSFCC: reporting framework.

It considers the audience, stewardship, and potential uses of the framework, along with management of data and need for review. It outlines when and how to report.

Audience

The framework and accompanying indicator results report are directed at decision and policy makers at national, state and local levels.

It is a useful resource for governments, the non-government sector, stakeholder organisations, local health service providers, private providers, industry and communities that advocate, and provide care and education, for people with chronic conditions and their carers and families.

Stewardship

The NSFCC and the associated reporting framework were developed under the auspice of the then Australian Health Ministers' Advisory Council (AHMAC).

Potential uses

Potential uses of the reporting framework include:

- Measurement and assessment of progress at a national level against the three NSFCC Objectives– is progress against each indicator improving, stable or deteriorating?
    - Measurement and assessment of progress at a national level in prevention activities which seek to reduce the incidence of chronic conditions and lessen the predisposing risk factors for chronic conditions (Objective 1).
    - Measurement and assessment of progress at a national level in providing efficient, effective and appropriate care to support people with chronic conditions and optimise quality of life (Objective 2).
    - Measurement and assessment of progress at a national level among priority populations– is there progress among each population against indicators of success, or is performance stable or deteriorating? There is potential to expand this to other selected population groups (Objective 3).

  There is potential to expand usage to report at jurisdiction and smaller area levels.

- Contribute to evidence to assess the impact of policies and programs– can a policy initiative be demonstrated to have been associated with an improvement in connected health outcomes?
- Guiding, prioritising and supporting system-level improvement activities.
- Facilitating and contextualising international comparisons.

Data management

Where possible, data to populate indicators will be obtained from existing administrative databases, collections, surveys and national health reporting projects or frameworks.

Most of these data are collected, collated or reported under the auspices of the Australian Institute of Health and Welfare and the Australian Bureau of Statistics. Major data collections are outlined in Box 4.

Box 4: Selected data sources

Australian Institute of Health and Welfare	Australian Bureau of Statistics
AIHW National Hospital Morbidity Database	ABS Adult Literacy and Life Skills Survey
AIHW National Mortality Database	ABS Labour Force Survey
AIHW National Perinatal Data Collection	ABS National Aboriginal and Torres Strait Islander Health Survey
Australian Cancer Database	ABS National Aboriginal and Torres Strait Islander Social Survey
Australian Burden of Disease Study	ABS National Health Survey and ABS Australian Health Survey
BreastScreen Australia	ABS National Survey of Mental Health and Wellbeing
National Bowel Cancer Screening Program	ABS Patient Experience Survey
National Cervical Screening Program	ABS Survey of Disability, Ageing and Carers
	ABS Survey of Education and Work
	ABS Survey of Income and Housing

Should new indicators be developed and/or new data needs identified, the intention is to utilise existing sources and reporting mechanisms where possible.

Further detail on data sources for individual indicators can be found in the indicator specifications and in *Appendix C*.

Indicator results report

The indicator results report which accompanies this framework will provide the most recent data and interpretive text for each indicator, as well as a high-level assessment of progress against each NSFCC Objective.

Successive publication of reports will allow for ongoing monitoring of progress.

There is a commitment to make both the reporting framework and indicator results report publicly available as companion documents to the NSFCC.

The most appropriate manner of communication to stakeholders needs to be considered. It is suggested that, at a minimum, a printed report be published periodically. Beyond this, supplementary reporting could include fact sheets, web-based content, data visualisations, additional data tables or other products.

Indicator specifications

This chapter provides specifications for each NSFCC indicator.

These specifications are based primarily on information in METeOR, Australia's repository for national metadata standards for health, housing and community services statistics and information (AIHW 2019). METeOR includes specifications for many of the indicators in high-level national frameworks. If indicators were not in METeOR, specifications were based on information from relevant reports.

The fields include:

Short name	A short or common name or designation by which the indicator is known and might be identified.
Description	A short statistical description of an indicator. Values include percentage, count, proportion, mean (average), and percentile.
Rationale	A justification for inclusion of the indicator.
Definitions	A plain text description of concepts and the formulae used to calculate an indicator.
Numerator	A description of the number above the line in a fraction showing how many of the parts indicated by the denominator are taken.
Denominator	A description of the number below the line in a fraction.
Possible disaggregation	Identification of priority or important populations for which disaggregations are possible, limited to: age group, sex, Indigenous status, socioeconomic area, and remoteness.
Data sources & frequency	The data source is a specific data set, database and reference from where data are sourced. How often the indicator has been reported in publications, and most recent reporting. *Appendix C* contains a brief description of each of the data sources used for the indicators in this Framework.
Issues	Any issues surrounding use of the indicator. These might include definitions changing over time, infrequent or discontinued reporting, variations in specifications across jurisdictions or internationally.
Interpretation	A short description to explain the meaning of an indicator. i.e. Whether a value going up or down is a measure of success.
National Frameworks	The National Frameworks which the indictor is reported in.
Further information	Where to go to find further details/specifications about the indicator. METeOR links are included where available. National guidelines are also included for indicators where national guidelines influence the definition (for example, dietary and physical activity guidelines). Otherwise, key reports are included (for example, the Australian Burden of Disease Study).

Objective 1: Focus on prevention for a healthier Australia

Success statement 1: The proportion of Australians living with preventable chronic conditions or associated risk factors is reduced

1. Low income

Description	Proportion of people with low income
Rationale	Income, as a social determinant of health, plays a key role in determining socioeconomic area. Besides improving socioeconomic area, a higher income allows for greater access to goods and services that provide health benefits, such as better food and housing, additional health care options, and greater choice in healthy pursuits. Loss of income through illness, disability or injury can adversely affect individual socioeconomic area and health.
Definitions	People living in households with an equivalised disposable household income (i.e. after-tax income, adjusted for the number of people in the household) that is less than 50% of the national median. Presented as a percentage.
Numerator	Number of people living in households with an equivalised disposable household income less than 50% of the national median.
Denominator	Total population
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS Survey of Income and Housing (SIH) (Every 2 years, for total population) ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS) (Every 6 years) OR ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) (Every 6 years)
Issues	The definition of this indicator may change as development of the Australian Health Performance Framework progresses.
Interpretation	This indicator provides important contextual information for the interpretation of other indicators in the monitoring framework given the link between social determinants, risk factors and chronic conditions.
National Frameworks	NHPF. Note there is a similar measure in the Aboriginal and Torres Strait Islander Health Performance Framework however it looks at equivalised gross household income.

Further information	Not applicable

2. Educational attainment

Description	Proportion of people aged 25–64 with a non-school qualification at Certificate level III or above
Rationale	Educational attainment, as a social determinant of health, plays a key role in determining socioeconomic area. Educational attainment is associated with better health throughout life. Education equips people to achieve stable employment, have a secure income, provide for families and cope with ill health by assisting them to make informed health care choices. An individual's education level affects not only their own health, but that of their family, particularly dependent children.
Definitions	Level of educational attainment was derived from information on level of highest non-school qualification. Education data are coded to the Australian Standard Classification of Education (ABS cat. no. 1272.0). Presented as a percentage.
Numerator	Number of people aged 25–64 with a Certificate level III or above
Denominator	Total population aged 25–64
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS Survey of Education and Work (Annually, for total population) ABS Census of Population and Housing (5 yearly; Indigenous reporting) The following supplementary data sources can be used between Census years: ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS) (Every 6 years) OR ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) (Every 6 years)
Issues	None identified
Interpretation	This indicator provides important contextual information for the interpretation of other indicators in the monitoring framework given the well-established link between social determinants, risk factors and chronic conditions.
National Frameworks	NHPF, NIRA, ATSI HPF. Note there are slight variations between the definitions used in these frameworks, for example, the age range and whether it is 'with' a qualification or 'with or working towards' the qualification.
Further information	For more detailed specifications, see METeOR, AIHW's Metadata Online Registry at https://meteor.aihw.gov.au.

3. Employment-to-population ratio

Description	The proportion of people aged 15–64 who are employed.
Rationale	Employment status, as a social determinant of health, plays a key role in determining socioeconomic area. Unemployed people have a higher risk of death and have more illness and disability than those of similar age who are employed. The psychosocial stress caused by unemployment has a strong impact on physical and mental health and wellbeing. For some, unemployment is caused by illness, but for many it is unemployment itself that causes health problems through its psychological consequences and the financial problems it brings.
Definitions	Employed persons are defined as all persons aged 15 years and over who, during the reference week: • worked for one hour or more for pay, profit, commission or payment in kind, in a job or business or on a farm (comprising employees and owner managers of incorporated or unincorporated enterprises), or • worked for one hour or more without pay in a family business or on a farm (i.e. contributing family workers), or • were employees who had a job but were not at work and were: - away from work for less than four weeks up to the end of the reference week, or - away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four-week period to the end of the reference week, or - away from work as a standard work or shift arrangement, or - on strike or locked out, or - on workers' compensation and expected to be returning to their job, or • were owner managers, who had a job, business or farm, but were not at work. Presented as a percentage.
Numerator	Number of people aged 15–64 who are employed
Denominator	Total population aged 15–64
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS Labour Force Survey (Monthly: Total population) ABS Survey of Education and Work (Annually) (non-Indigenous numerator) ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS) (Every 6 years) (Indigenous numerator) OR ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) (Every 6 years)
Issues	From 2013, the scope of the ABS Survey of Education and Work was broadened and now includes people permanently unable to work.

Interpretation	This indicator provides important contextual information for the interpretation of other indicators in the monitoring framework given the well-established link between social determinants, risk factors and chronic conditions.
National Frameworks	NIRA, ATSI HPF.
Further information	For more detailed specifications, see METeOR, AIHW's Metadata Online Registry at https://meteor.aihw.gov.au.

4. Smoking during pregnancy

Description	Proportion of women who gave birth and smoked in the first 20 weeks of pregnancy
Rationale	Women who smoke tobacco during pregnancy are more likely to experience pre-term birth, placental complications and perinatal death of their baby (WHO 2013). Babies of mothers who smoke during pregnancy are at increased risk of poor growth during pregnancy, particularly during the phase of rapid weight gain from 34 weeks gestation onwards (Širvinskienė et al. 2016). Sudden infant death syndrome, childhood diabetes and childhood obesity have also been linked with exposure to tobacco during fetal development (Banderali et al. 2015; Flenady et al. 2018). Maternal smoking is associated with low birthweight, which in turn is linked with poor educational outcomes in early childhood, coronary heart disease, type 2 diabetes, and being overweight in adulthood (Guthridge et al. 2015; Lumley et al. 2009). Smoking cessation during pregnancy is key in reducing the risk of complications during pregnancy and birth as well as reducing adverse health outcomes for the baby. Cessation at later stages of pregnancy will still improve health outcomes for the baby, including improved fetal growth (AIHW 2018b; Miyazaki et al. 2015).
Definitions	A birth is defined as the complete expulsion or extraction from a female, of a product of conception of 20 or more completed weeks of gestation or of 400 grams or more birthweight. Smoking during pregnancy is self-reported smoking of cigarettes or inhaled tobacco. Presented as a percentage. For Indigenous / non-Indigenous comparisons percentages are directly age-standardised to the 2001 Australian population for women aged 15–44.
Numerator	Number of women who gave birth and reported smoking tobacco in the first 20 weeks of pregnancy
Denominator	Total number of women who gave birth and had a stated smoking status
Possible disaggregation	Age group / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	AIHW National Perinatal Data Collection (Annually)
Issues	National Perinatal Data Collection data on smoking status and/or smoking quantity (number of cigarettes smoked) have been collected from NSW, WA, SA and ACT since 2001, and progressively from all other jurisdictions. Standardised data collection for smoking in pregnancy commenced for births from July 2010. Data are self-reported and are subject to recall bias. Includes women who smoked before knowing they were pregnant. Results may be considered in conjunction with data on the proportion of women smoking after 20 weeks of pregnancy (women who stop smoking during pregnancy can reduce the risk of adverse outcomes for themselves and their babies).

Interpretation	A lower percentage can be interpreted as a positive result.
National Frameworks	CHI, NIRA, NHRA PAF, National Core Maternity Indicators, National Tobacco Strategy 2012–2018, ATSI HPF.
Further information	For more detailed specifications, see METeOR, AIHW's Metadata Online Registry at https://meteor.aihw.gov.au.

5. Low birthweight

Description	Proportion of liveborn babies with low birthweight
Rationale	Low birthweight babies are at greater risk of dying during their first year of life and are prone to ill-health in childhood and the development of chronic disease as adults.
Definitions	Proportion of liveborn babies (including singleton and multiple births) with a birthweight of less than 2,500 grams. Excludes stillbirths and births of less than 20 weeks gestation. Presented as a percentage.
Numerator	Number of low birthweight liveborn babies
Denominator	Total number of liveborn babies
Possible disaggregation	Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	AIHW National Perinatal Data Collection (Annually)
Issues	An indicator on 'Healthy birthweight' is under development. When the NSFCC indicators are reviewed, 'Healthy birthweight' could be considered as well or instead of low birthweight.
Interpretation	A lower percentage can be interpreted as a positive result.
National Frameworks	CHI, NHPF, NHRA PAF, NHA, RoGS, NIRA, ATSI HPF.
Further information	For more detailed specifications, see METeOR, AIHW's Metadata Online Registry at https://meteor.aihw.gov.au.

6. Alcohol consumption

Description	Proportion of adults at risk of long-term harm from alcohol
Rationale	Alcohol consumption increases the risk of a range of chronic diseases such as liver disease, many cancers, oral health problems, high blood pressure and mental health problems. Further, maternal alcohol consumption can increase risk of low birth weight. Alcohol consumption can also play a part in excess energy intake, contributing to excess body weight. Reducing alcohol consumption reduces the risk of developing these conditions and other health problems (NHMRC 2009; NHMRC 2020).
Definitions	The National Health and Medical Research Council (NHMRC) guidelines for alcohol consumption provide advice on reducing the risks to health from drinking alcohol. According to the 2009 guidelines, for healthy men and women, drinking no more than 2 standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury. This is operationalised as consuming an average of more than 2 standard drinks per day in the last week. Presented as a percentage. Rates are directly age-standardised to the 2001 Australian population.
Numerator	Number of people aged 18 and over assessed as having an alcohol consumption pattern that puts them at risk of long-term alcohol-related harm.
Denominator	Total population aged 18 and over
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS National Health Survey (NHS) (3-yearly) ABS Australian Aboriginal and Torres Strait Islander Health Survey, National Aboriginal and Torres Strait Islander Health Survey component (NATSIHS) (Every 6 years) OR ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS) (Every 6 years)
Issues	Alcohol risk data is not comparable between the 2017–18 NHS and the 2018–19 NATSISS collections. Guidelines on people at risk of alcohol-related harm are subject to change, affecting time trends. Data are self-reported survey results and are subject to recall bias and sampling errors.
Interpretation	A lower value can be interpreted as a positive result
National Frameworks	NHA, NIRA
Further information	For more detailed specifications, see METeOR, AIHW's Metadata Online Registry at https://meteor.aihw.gov.au. NHMRC (National Health and Medical Research Council) 2009. Australian Guidelines to reduce health risks from drinking alcohol. Canberra: NHMRC.

	NHMRC 2020. Australian Guidelines to reduce health risks from drinking alcohol. Canberra: NHMRC.

7. Smoking

Description	Proportion of secondary students and adults who currently smoke tobacco.
Rationale	Smoking is the single most important preventable cause of ill health and death in Australia. Smoking is linked to a range of conditions including various respiratory conditions, cancers, cardiovascular diseases, type 2 diabetes and hip fractures (AIHW 2018b).
Definitions	Smoking tobacco includes one or more manufactured (packet) cigarettes, roll-your-own cigarettes, cigars or pipes. This excludes chewing tobacco, electronic cigarettes (and similar) and smoking of non-tobacco products. Current smokers are defined as: • Adults aged 18 and over who smoke tobacco every day. • Secondary students aged 12–17 who smoked on at least 1 day in the past week. Presented as a percentage. Rates are directly age-standardised to the 2001 Australian population.
Numerator	(a) Number of adults aged 18 and over who smoke tobacco every day. (b) Number of secondary students aged 12–17 who smoked tobacco on at least 1 day in the past week.
Denominator	(a) Number of adults aged 18 and over. (b) Number of secondary students aged 12–17.
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources	(a) ABS National Health Survey (NHS) (3-yearly) ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS) (Every 6 years) OR ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) (Every 6 years). (b) Australian Secondary Students' Alcohol and Drug Survey (ASSAD) (3-yearly).
Issues	Data are self-reported survey results and are subject to recall bias and sampling errors.
Interpretation	A low percentage for this indicator can be interpreted as a positive result.
National Frameworks	NHPF, NHRA PAF, NHA, RoGS, NIRA, ATSI HPF, National Tobacco Strategy 2012–2018. It also relates to Indicators 9 and 10 in the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020.
Further information	For more detailed specifications, see METeOR, AIHW's Metadata Online Registry at https://meteor.aihw.gov.au.

8. Insufficient physical activity

Description	Proportion of children and adults who did not perform sufficient physical activity
Rationale	Low levels of physical activity are a major risk factor for ill health and mortality from all causes. People who do not do sufficient physical activity have a greater risk of cardiovascular disease, type 2 diabetes and osteoporosis. Being physically active improves mental and musculoskeletal health and reduces other risk factors such as overweight and obesity, high blood pressure and high blood cholesterol.
Definitions	Insufficient physical activity is determined if physical activity did not meet *Australia's Physical Activity and Sedentary Behaviour Guidelines* and the *Australian 24-Hour Movement Guidelines* operationalised here as: • For children aged 2–4 years, accumulating 180 minutes of physical activity every day in the last week. • For children and young people aged 5–17, accumulating 60 minutes of moderate to vigorous intensity physical activity every day in the last week. • For adults aged 18–64: - Accumulating 150–300 minutes of moderate intensity or 75–150 minutes of vigorous intensity physical activity, or an equivalent combination of both, in the last week. - Being active on 5 or more days. • For adults aged 65 and over accumulating 30 minutes or more of moderate intensity physical activity on 5 or more days in the last week. Note: There are other components of *Australia's Physical Activity and Sedentary Behaviour Guidelines* and the *Australian 24-Hour Movement Guidelines* such as the inclusion of activities that strengthen muscle and bone (children and young people), muscle strengthening activities (adults aged 18–64 years) and including strength, balance and flexibility activities (older adults aged 65 and over). These are equally as important as meeting the physical activity components but are not included here as the national surveys used for this indicator do not fully capture the different activities required to measure meeting these components. Presented as a percentage. Rates are directly age-standardised to the 2001 Australian population.
Numerator	Number of people in each age group who did not meet the physical activity guidelines as described above: (a) Adults aged 18+. (b) Children and adolescents aged 2–17.
Denominator	(a) Adults aged 18+. (b) Children and adolescents aged 2–17.
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS National Health Survey (NHS) (Every 3 years)

	ABS Australian Aboriginal and Torres Strait Islander Health Survey, National Aboriginal and Torres Strait Islander Health Survey component (NATSIHS) (Every 6 years) ABS Australian Health Survey (AHS), 2011–12 (National Nutrition and Physical Activity Survey component) (once only) ABS Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS), 2012–13 (National Aboriginal and Torres Strait Islander Nutrition and Physical Activity Survey Component) (once only)
Issues	Guidelines and measures of physical activity are subject to change, affecting time trends. Data collected in NHS 2017–18 includes workplace activity in physical activity, however in previous collections, this is excluded. Data are self-reported survey results and are subject to recall bias and sampling errors. Physical activity results for young people aged 15–17 are regularly available from the NHS and NATSIHS. Results for children aged 2–14 are available only from the 2011–12 AHS and 2012–13 AATSIHS Nutrition and Physical Activity Survey components.
Interpretation	A lower value can be interpreted as a positive result.
National Frameworks	This indicator is not currently included in any key national health indicator frameworks. This also relates to Indicators 6 and 7 in the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020.
Further information	Australia's Physical Activity and Sedentary Behaviour Guidelines and the Australian 24-Hour Movement Guidelines. http://www.health.gov.au/internet/main/publishing.nsf/Content/health-pubhlth-strateg-phys-act-guidelines.

9. Inadequate fruit and/or vegetable consumption

Description	Proportion of people with inadequate fruit and/or vegetable consumption
Rationale	A healthy diet plays an important part in overall health and wellbeing. A poor diet, high in saturated fats and refined carbohydrates and with inadequate fruit and vegetable consumption, increases the risk of developing a range of chronic conditions, including cardiovascular disease (CVD), type 2 diabetes and chronic kidney disease (CKD).
Definitions	The proportion of people not eating sufficient serves of fruit and vegetables each day to obtain a health benefit. ABS National Health Survey data are based on dietary guidelines published by the NHMRC in 2013. In the latest NHMRC guidelines, the minimum recommended number of serves of fruit per day is: • 1 for children aged 2–3 • 1½ for children aged 4–8 • 2 for people aged 9 and over. The minimum recommended number of serves of vegetables per day is; • 2½ for children aged 2–3 • 4½ for children aged 4–8 • 5 for children aged 9–11, females aged 12 and over and males aged 70 and over • 5½ for males aged 12–18 and 51–70 • 6 for males aged 19–50. Presented as a percentage. Rates are directly age-standardised to the 2001 Australian population.
Numerator	Number of people who did not eat the recommended serves of fruit and/or vegetables in the below age groups: (a) Adults (18+) (b) Children and adolescents (2–17)
Denominator	(a) Adults: Total population aged 18 and over (b) Children and adolescents: Total population aged 2–17
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS National Health Survey (NHS) (Every 3 years) ABS AATSIHS, National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) component (Every 6 years)
Issues	Guidelines and measures of inadequate fruit and/or vegetable consumption are subject to change, affecting time trends. Data are self-reported survey results and are subject to recall bias and sampling errors.
Interpretation	A lower value can be interpreted as a positive result.

National Frameworks	NHPF, NYIF, ATSI HPF. This also relates to Indicator 16 in the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020.
Further information	NHMRC (National Health and Medical Research Council) 2013. Australian Dietary Guidelines, Canberra: National Health and Medical Research Council.

10. Sodium intake

Description	Average intake of sodium per capita
Rationale	High intakes of sodium can increase blood pressure, which can increase the risk of developing heart and kidney problems. The *Australian Dietary Guidelines* (NHMRC 2013) recommends limiting intake of foods containing salt (which is the main source of sodium).
Definitions	Mean daily intake of sodium per day in milligrams in people aged 2 and over Presented as mg/person/day
Numerator	Total daily sodium intake of people aged 2 and over in milligrams
Denominator	Total population aged 2 and over
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS Australian Health Survey (AHS), 2011–12 (National Nutrition and Physical Activity Survey component) (once only) ABS Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS), 2012–13 (National Aboriginal and Torres Strait Islander Nutrition and Physical Activity Survey Component) (once only)
Issues	Data are not routinely available. Usual daily intake of sodium is estimated from 24-hour dietary recall. Data underestimate total sodium intakes, as they are based on sodium naturally present in foods as well as sodium added during processing but exclude the 'discretionary salt' added by consumers when preparing foods in the home or 'at the table'. Sodium intake can be assessed against the *Australian Dietary Guidelines'* recommendations for adequate intake however there is no upper level of intake for adults due to the difficulty in establishing a single point below which there is no risk to adverse health outcomes.
Interpretation	A value within the recommendations for adequate intake by age and sex for this indicator can be interpreted as a positive result.
National Frameworks	This indicator is not currently included in any key national health indicator frameworks. This also relates to Indicator 8 in the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020.
Further information	NHMRC (National Health and Medical Research Council) 2013. Australian Dietary Guidelines, Canberra: National Health and Medical Research Council.

11. High blood pressure

Description	Proportion of people who have high blood pressure
Rationale	High blood pressure (hypertension) is a major risk factor for chronic diseases including stroke, coronary heart disease (CHD), heart failure and CKD.
Definitions	Blood pressure represents the forces exerted by blood on the walls of the arteries, depending on whether the heart muscle is contracting (systole) or relaxing between contractions (diastole). It is expressed as systolic/diastolic—for example, 120/80 mmHg, stated as '120 over 80'. At the time this indicator set was developed, the World Health Organization (WHO) defined high blood pressure as including any of the following: • systolic blood pressure of 140 mmHg or more • diastolic blood pressure of 90 mmHg or more • receiving medication for high blood pressure. 'Uncontrolled blood pressure' is defined as a measured systolic blood pressure of 140mmHg or diastolic blood pressure of 90mmHg or more, irrespective of the use of blood pressure medication. Presented as a percentage. Rates are directly age-standardised to the 2001 Australian population.
Numerator	(a) Total high blood pressure: Number of people aged 18 and over with a measured high blood pressure and/or taking medication for high blood pressure (b) Uncontrolled blood pressure: Number of people aged 18 and over who had a measured high blood pressure
Denominator	Total population aged 18 and over
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS National Health Survey (NHS) (Every 3 years) ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) (Every 6 years)
Issues	In 2014–15, this measure excluded persons for whom blood pressure was not measured or a valid reading was not obtained. In 2017–18, 32% of respondents to the NHS did not have their blood pressure measured, and for these people blood pressure was imputed. Since this indicator set was developed the WHO has updated the definition of high blood pressure to be 'Hypertension is diagnosed if, when it is measured on two different days, the systolic blood pressure readings on both days is ≥140 mmHg and/or the diastolic blood pressure readings on both days is ≥90 mmHg' (WHO 2021).
Interpretation	A lower value can be interpreted as a positive result.
National Frameworks	ATSI HPF

Further information	Not applicable

12. Abnormal blood lipids

Description	Proportion of adults with abnormal blood lipids.
Rationale	Abnormal blood lipids (dyslipidaemia) can contribute to the development of atherosclerosis, a build-up of fatty deposits in the blood vessels which may lead to the development of cardiovascular diseases. Dyslipidaemia is a risk factor for chronic diseases such as coronary heart disease, stroke, and type 2 diabetes.
Definitions	Voluntary participants in the ABS 2011–12 Australian Health Survey (AHS) provided blood and urine samples, which were analysed for specific biomarkers, including dyslipidaemia. In the AHS, a person was classified as having dyslipidaemia if they had one or more of the following: • total cholesterol ≥ 5.5 mmol/L • LDL cholesterol ≥ 3.5 mmol/L • HDL cholesterol < 1.0 mmol/L for men, and < 1.3 mmol/L for women • triglycerides ≥ 2.0 mmol/L • taking lipid-modifying medication. Presented as a percentage, directly age-standardised to the 2001 Australian population.
Numerator	Number of people aged 18 and over with abnormal blood lipids
Denominator	Total population aged 18 and over
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS Australian Health Survey (AHS) 2011–13 (2011–12 Health Measures Survey component); once only. ABS Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS) 2012–13 (Health Measures Survey component); once only.
Issues	Data are not routinely available. A fasting blood sample was provided by only 30% of participants aged 12 and over in the ABS National Health Measures Survey. The WHO indicator defines raised total cholesterol among people aged 18+ as ≥ 5.0 mmol/L, or 190 mg/dL.
Interpretation	A lower value can be interpreted as a positive result.
National Frameworks	This indicator is not included in any key national health indicator frameworks. It relates to Indicator 17 in the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020.
Further information	Not applicable

13. Raised blood glucose levels

Description	Proportion of adults with raised blood glucose levels
Rationale	Raised blood glucose is a risk factor for a number of chronic diseases, including CVD, type 2 diabetes and CKD.
Definitions	Fasting plasma glucose is a blood test that measures the amount of glucose (a sugar) in the blood. In the Australian Health Survey, fasting plasma glucose levels of 7.0 mmol/L or greater indicates diabetes. Levels between 6.1 mmol/L and 6.9 mmol/L are known as impaired fasting plasma glucose and indicate that a person is at high risk of diabetes. In the AHS, a person was classified as having raised blood glucose levels if they had: • a fasting plasma glucose level of 6.1 mmol/L and above, or • had been diagnosed with diabetes and were taking diabetes medication (either insulin or tablets), irrespective of their fasting plasma glucose level. Presented as a percentage, directly age-standardised to the 2001 Australian population.
Numerator	Number of people aged 18 and over with raised blood glucose levels (fasting plasma glucose ≥ 6.1mmol/L)
Denominator	Total population aged 18 and over
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS Australian Health Survey (AHS) 2011–13 (2011–12 Health Measures Survey component); once only. ABS Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS) 2012–13 (Health Measures Survey component); once only.
Issues	Data are not routinely available. A fasting blood sample was provided by only 30% of participants aged 12 and over in the ABS National Health Measures Survey.
Interpretation	A lower value can be interpreted as a positive result
National Frameworks	Australian National Diabetes Strategy 2016–2020. It also relates to Indicator 12 in the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020.
Further information	Not applicable

14. Overweight and obesity

Description	Proportion of people who are overweight or obese.
Rationale	Excess weight, especially obesity, is a major risk factor for cardiovascular disease, type 2 diabetes, high blood pressure, sleep apnoea, psychological issues, some musculoskeletal conditions and some cancers. As the level of excess weight increases, so does the risk of developing these conditions. In addition, being overweight can hamper the ability to control or manage chronic disorders.
Definitions	Overweight and obesity are classified using body mass index (BMI), which is calculated as weight (in kilograms) divided by the square of height (in metres). In people aged 18 and over, obesity is defined as BMI ≥ 30 kg/m² and overweight but not obese is defined as 25 kg/m² ≤ BMI < 30 kg/m². In children aged 2–17, overweight and obesity are defined using international cut-off points based on their age and sex (Cole et al. 2007). Presented as a percentage. Rates are directly age-standardised to the 2001 Australian population.
Numerator	(a) Adults Number of people aged 18 and over who are obese or overweight (b) Children and adolescents: Number of people aged 2–17 who are obese or overweight
Denominator	(a) Adults: Total population aged 18 and over (b) Children and adolescents: Total population aged 2–17
Possible disaggregation	BMI category / Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS National Health Survey (NHS) (Every 3 years) ABS AATSIHS, National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) component (Every 6 years)
Issues	In 2014–15, 38% of children aged 2–17 and 27% of adults did not have their height, weight or both measured. For these people, height and weight were imputed. In 2017–18, 44% of children aged 2–17 and 34% of adults did not have their height, weight or both measured. For these people, height and weight were imputed.
Interpretation	A lower value can be interpreted as a positive result. However, to fully understand changes in the distribution of BMI over time, all BMI categories should be reported when assessing this indicator.
National Frameworks	CHI, NYIF, NHA, NHPF. This also relates to Indicators 13 and 14 in the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020.
Further information	For more detailed specifications, see METeOR, AIHW's Metadata Online Registry at https://meteor.aihw.gov.au.

15. High/very high levels of psychological distress

Description	Proportion of adults with high/very high levels of psychological distress
Rationale	Psychological distress is one indication of the mental health and wellbeing of a population. Psychological distress refers to unpleasant feelings or emotions that affect a person's level of functioning and interfere with the activities of daily living. This distress can result in having negative views of the environment, others and oneself, and manifest as symptoms of mental illness, including anxiety and depression. The relationship between psychological distress and chronic conditions is complex. People with chronic conditions are more likely to have higher levels of psychological distress than the general population, and psychological distress increases the risk of some chronic conditions.
Definitions	Derived from the Kessler Psychological Distress Scale, with higher scores indicating a higher level of distress; lower scores indicate a low level of distress. A ten-item scale is currently employed by Australian Bureau of Statistics (ABS) in general population collections (i.e. K10), while a modified five item scale is included in the Aboriginal and Torres Strait Islander population collections (K5). Total scores from the K10 scale are grouped as follows: • 10–15 Low • 16–21 Moderate • 22–29 High • 30–50 Very high. Total scores from the K5 scale will be grouped as follows: • 5–11 Low/moderate • 12–25 High/very high. Presented as a percentage, directly age-standardised to the 2001 Australian population.
Numerator	Number of people aged 18 and over with a high / very high distress score as measured by the Kessler Psychological Distress Scale
Denominator	Total population aged 18 and over
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS National Health Survey (NHS) (Every 3 years). National Aboriginal and Torres Strait Islander Social Survey (NATSISS) (Every 6 years) OR ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) (Every 6 years)
Issues	None identified.
Interpretation	A lower value can be interpreted as a positive result.

National Frameworks	NHPF, NHA, RoGS, Fifth National Mental Health and Suicide Prevention Plan and National Mental Health Performance Framework.
Further information	For more detailed specifications, see METeOR, AIHW’s Metadata Online Registry at https://meteor.aihw.gov.au.

16. Prevalence of mental illness

Description	Proportion of people who experienced mental illness in the previous 12 months
Rationale	Many mental disorders, such as depression, are chronic conditions and cause significant ill health and disability in the population (AIHW 2016). Further, people with mental illness have poorer physical health than other Australians and a substantially reduced life expectancy (Department of Health 2017a). People with mental illness are much more likely than the general population to have a range of chronic conditions (including diabetes, respiratory disease, cardiovascular disease, cancer and osteoporosis) and risk factors (such as smoking) (Department of Health 2017a).
Definitions	**Adults** The ABS National Survey of Mental Health and Wellbeing provided information on lifetime and 12-month mental disorders, by three high prevalence disorder groups: anxiety disorders (e.g. social phobia), Affective disorders (e.g. depression), and substance use disorders (e.g. alcohol harmful use). In the survey, 12-month diagnoses were derived based on lifetime diagnosis and the presence of symptoms of that disorder in the 12 months prior to the survey interview. The World Health Organization's (WHO) Composite International Diagnostic Interview (CIDI) was used for diagnosis. Presented as a percentage, directly age-standardised to the 2001 Australian population. **Children and adolescents** The Australian Child and Adolescent Survey of Mental Health and Wellbeing (Young Minds Matter) provides information on the prevalence on mental disorders in Australians aged 4–17. The survey included diagnostic modules for four main categories of disorders (seven modules in total): anxiety disorders (social phobia, separation anxiety disorder, generalised anxiety disorder and obsessive-compulsive disorder), major depressive disorder, attention deficit hyperactivity disorder (ADHD) and conduct disorder.
Numerator	(a) Number of people aged 16–85 who met the criteria for diagnosis of a mental disorder and had symptoms in the previous 12 months. (b) Number of children and adolescents aged 4–17 who met the criteria for diagnosis of a mental disorder and had symptoms in the previous 12 months.
Denominator	(a) Total population aged 16–85 (b) Total population aged 4–17
Possible disaggregation	Age group / Sex / Socioeconomic area
Data sources & frequency	(a) ABS National Survey of Mental Health and Wellbeing (Irregular: Data available for 1997 and 2007).

	(b) Australian Child and Adolescent Survey of Mental Health and Wellbeing (Young Minds Matter) (Irregular: Data are available for 1998 and 2013–14).
Issues	Includes high prevalence mental disorders only. While severe and persistent mental illness, such as psychosis, has a relatively low prevalence, it also contributes substantially to the impact of mental illness on society. The Australian Child and Adolescent Survey of Mental Health and the ABS National Survey of Mental Health and Wellbeing are the preferred data sources for this indicator as these surveys are designed to estimate the prevalence of common mental disorders according to clinical diagnostic criteria, making it of higher quality for reporting against this indicator. Some data may not be comparable between survey years due to differences in data items and collection methods. Equivalent data are not available for Aboriginal and Torres Strait Islander people (see NMHC 2018, and Lawrence et al. 2015 for more details).
Interpretation	A lower value can be interpreted as a positive result. However, the prevalence has been stable for the last 20 years.
National Frameworks	NHPF, Fifth National Mental Health and Suicide Prevention Plan, National Mental Health Performance Framework.
Further information	For more detailed specifications, see METeOR, AIHW's Metadata Online Registry at https://meteor.aihw.gov.au.

17. Prevalence of heart, stroke and vascular disease

Description	Proportion of adults who report having a heart, stroke or vascular disease.
Rationale	Heart, stroke and vascular diseases are leading causes of disease burden in Australia. Many heart, stroke and vascular disease risk factors are modifiable including smoking, physical inactivity, excessive alcohol consumption, obesity, dietary factors, high blood pressure and abnormal lipids (AIHW 2018a). Prevention activities may help reduce the heart, stroke and vascular disease burden.
Definitions	The ABS National Health Survey (NHS) collects data on long-term health conditions. A respondent to the NHS is considered to have heart, stroke or vascular disease if they reported having been told by a doctor or nurse that they had any of a range of circulatory conditions comprising: • Ischaemic heart diseases (angina, heart attack and other ischaemic heart diseases) • Cerebrovascular diseases (stroke and other cerebrovascular diseases) • Oedema • Heart failure • Diseases of the arteries, arterioles and capillaries. and that their condition was current at the time of interview and had lasted or was expected to last 6 months or more. People who reported having ischaemic heart diseases, cerebrovascular diseases and heart failure that were not current and long-term at the time of interview are also included. Presented as a percentage, directly age-standardised to the 2001 Australian population.
Numerator	Number of people aged 18 and over who report having heart, stroke or vascular disease
Denominator	Total population aged 18 and over
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS National Health Survey (NHS) (3-yearly) ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) (Every 6 years)
Issues	Data are self-reported survey results and are subject to recall bias and sampling errors.
Interpretation	A lower value can be interpreted as a positive result.
National Frameworks	This indicator is not included in any key national health indicator frameworks.
Further information	Not applicable

18. Incidence of heart attacks (acute coronary events)

Description	Annual rate of heart attacks (acute coronary events)
Rationale	Coronary heart disease is one of the leading causes of disease burden in Australia. Coronary heart disease is largely preventable, as many of its risk factors are modifiable. Preventable risk factors for coronary heart disease include tobacco smoking, high blood pressure, high blood cholesterol, physical inactivity, poor nutrition, and overweight and obesity.
Definitions	(a) Deaths where 'acute coronary heart disease' (ICD-10 codes I20–I24) is the underlying cause of death in each calendar year (based on the year of registration of death) (b) Non-fatal hospitalisations where acute myocardial infarction (ICD-10-AM I21) and unstable angina (ICD-10-AM I20.0) is the principal diagnosis and separation mode is not equal to 'died' or 'transferred to another acute hospital', and care type is not equal to *Newborns with unqualified days* or *posthumous organ procurement* or *hospital boarder* in each calendar year (based on discharge date from hospital). Presented as a rate, directly age-standardised to the 2001 Australian population.
Numerator	Number of deaths from acute coronary heart disease (a) **plus** the number of non-fatal hospitalisations for acute myocardial infarction or unstable angina (b) for people aged 25 and over.
Denominator	Total population aged 25 and over.
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	AIHW National Hospital Morbidity Database (Annually) AIHW National Mortality Database (Annually)
Issues	An individual may have more than one event during a year. The number of heart attacks (acute coronary events) are estimated from proxy measures that combine hospital and mortality data and apply counting rules to reduce double counting of events. These methods do not count events that do not result in hospitalisation or death.
Interpretation	A lower rate can be interpreted as a positive result.
National Frameworks	NHPF, NHA, RoGS, NHRA PAF.
Further information	For more detailed specifications, see METeOR, AIHW's Metadata Online Registry at https://meteor.aihw.gov.au.

19. Incidence of stroke

Description	Annual rate of stroke events.
Rationale	Stroke is a leading cause of disease burden in Australia. Prevention activities can help to reduce the burden, as many stroke risk factors are modifiable, including smoking, insufficient physical inactivity, excessive alcohol consumption, obesity, high blood pressure and abnormal lipids (AIHW 2018a).
Definitions	(a) Deaths where stroke (ICD-10 I60–I64) is the underlying cause of death (based on the year of registration of death). (b) Non-fatal hospitalisations where stroke (ICD-10-AM I60–I64) is the principal diagnosis, and separation mode is not equal to 'died' or 'transferred to another acute hospital', and care type is not equal to *Newborns with unqualified days* or *posthumous organ procurement* or *hospital boarder* in each calendar year (based on discharge date from hospital). Presented as a rate, directly age-standardised to the 2001 Australian population.
Numerator	Number of deaths with an underlying cause of stroke (a) **plus** number of non-fatal hospitalisations with a principal diagnosis of stroke (b)
Denominator	Total population
Possible disaggregation	Age group / Sex / Socioeconomic area / Remoteness area
Data sources & frequency	AIHW National Hospital Morbidity Database (Annually) AIHW National Mortality Database (Annually)
Issues	Includes the number of stroke events in a calendar year. An individual may have more than one stroke event during a year. The number of stroke events are estimated from proxy measures that combine hospital and mortality data and apply counting rules to reduce double counting of events. These methods do not count stroke events that do not result in hospitalisation or death. Reliable stroke incidence data are not currently available by Indigenous status. Further data exploration is needed to determine the feasibility of calculating stroke incidence estimates by Indigenous status.
Interpretation	A lower rate can be interpreted as a positive result.
National Frameworks	This indicator is not included in any key national health indicator frameworks.
Further information	Not applicable

20. Prevalence of type 2 diabetes

Description	Proportion of adults who report having type 2 diabetes
Rationale	**Type 2 diabetes** is the most common form of diabetes and occurs when the body becomes resistant to the insulin being produced by the pancreas and/or the amount produced is inadequate to meet the body's needs. Diabetes may lead to short- and long-term complications, such as heart disease, kidney disease, blindness and lower-limb amputation. Prevention activities can help reduce the burden, as many type 2 diabetes risk factors are modifiable, including insufficient physical activity, saturated fat intake, obesity, and tobacco smoking.
Definitions	The National Health Survey (NHS) collects data on long-term health conditions. A respondent to the NHS is considered to have type 2 diabetes if they reported having been told by a doctor or nurse that they had type 2 diabetes, irrespective of whether they considered their diabetes to be current or long-term. Presented as a percentage, directly age-standardised to the 2001 Australian population.
Numerator	Number of people aged 18 and over who report having type 2 diabetes
Denominator	Total population aged 18 and over
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources	ABS National Health Survey (NHS) (Every 3 years) ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) (Every 6 years)
Issues	This indicator is based on self-reported survey results, as biomedical data (the preferred data source) are not routinely collected. Regular biomedical health surveys are required to accurately report the prevalence of diabetes. The self-reported prevalence is likely to underestimate the true prevalence because self-reported data does not include people with undiagnosed diabetes.
Interpretation	A lower value can be interpreted as a positive result.
National Frameworks	NHRA PAF, NHA, RoGS, Australian National Diabetes Strategy, 2016–2020.
Further information	For more detailed specifications, see METeOR, AIHW’s Metadata Online Registry at https://meteor.aihw.gov.au.

21. Prevalence of chronic respiratory conditions

Description	Proportion of people who report having chronic respiratory conditions
Rationale	Chronic respiratory conditions affect the airways, including the lungs, as well as passages that transfer air from the mouth and nose into the lungs. Conditions include asthma, chronic obstructive pulmonary disease (COPD), allergic rhinitis ('hay fever') and other chronic respiratory conditions. Chronic respiratory conditions contribute substantially to the disease burden in the Australian population.
Definitions	The National Health Survey (NHS) collects data on long-term health conditions. A respondent to the NHS is considered to have a chronic respiratory condition if they reported ever having been told by a doctor or nurse that they had asthma, and their asthma is still current; or they reported having any other long-term respiratory condition that was current at the time of interview and had lasted, or was expected to last, for 6 months or more. Chronic respiratory conditions include: • Asthma • COPD (includes emphysema and chronic bronchitis) • Allergic rhinitis ('hay fever) • Chronic sinusitis • Other diseases of the respiratory system • Symptoms and signs involving the respiratory system. Presented as a percentage, directly age-standardised to the 2001 Australian population.
Numerator	Number of people who report having: (a) Total chronic respiratory conditions (as listed above) (b) Asthma (c) COPD (aged 45 years and over)
Denominator	(a) Total population (b) Total population (c) People aged 45 years and over
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS National Health Survey (NHS) (Every 3 years) ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) (Every 6 years)
Issues	Data are self-reported survey results and are subject to recall bias and sampling errors.
Interpretation	A lower value can be interpreted as a positive result.
National Frameworks	NHPF, NHRA PAF, RoGS.

Further information	National Asthma Strategy 2018: https://assets.nationalasthma.org.au/resources/National-Asthma-Strategy-2018.pdf

22. Prevalence of musculoskeletal conditions

Description	Proportion of the population who report having a disease of the musculoskeletal system and connective tissue
Rationale	Musculoskeletal conditions are highly prevalent, affecting around 1 in 3 Australians. Although the conditions are rarely fatal, they are large contributors to illness, pain and disability. Compared with the general population, people with musculoskeletal conditions have higher rates of poor health, very high psychological distress and very severe pain.
Definitions	The National Health Survey (NHS) collects data on long-term health conditions. A respondent to the NHS is considered to have a disease of the musculoskeletal system and connective tissue if they reported having such a health condition, whether or not they had been told by a doctor or nurse that they have the condition. Diseases of the musculoskeletal system and connective tissue include: • Arthritis – Rheumatoid, osteoarthritis, other & type unknown • Other arthropathies • Rheumatism(s) • Back problems (dorsopathies) • Osteoporosis • Gout • Other diseases of the musculoskeletal system & connective tissue • Symptoms and signs involving the musculoskeletal system & connective tissue. Presented as a percentage, directly age-standardised to the 2001 Australian population.
Numerator	Number of people who report having: (a) Total musculoskeletal conditions (as per list above) (b) Arthritis (c) Back problems (d) Osteoporosis.
Denominator	Total population
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS National Health Survey (NHS) (Every 3 years) ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) (Every 6 years)
Issues	Data are self-reported survey results and are subject to recall bias and sampling errors. Due to changes in coding and methodological issues, data may not be comparable over time.
Interpretation	A lower rate can be interpreted as a positive result
National Frameworks	This indicator is not currently included in any key national health indicator frameworks.

Further information	Not applicable

23. Incidence of selected cancers

Description	Number of new cases of bowel, breast, cervical and lung cancer and melanoma of the skin presented as age-standardised number per 100,000 population (per 100,000 females for breast and cervical cancers).
Rationale	Cancer is the leading cause of total burden of disease in Australia associated with premature death (AIHW 2016). These cancers have been selected because they are associated with known modifiable risk factors and/or national screening programs. Modifiable risk factors for the cancers listed here include smoking, excessive alcohol consumption, dietary risks, obesity and sun exposure. HPV infection is the biggest risk factor for cervical cancer.
Definitions	Number of new cases of breast cancer in females (ICD-10-AM code C50); bowel cancer (C18–C20); melanoma of the skin (C43); lung cancer (C33–C34); and cervical cancer (C53), per 100,000 population. Presented as rates, directly age-standardised to the 2001 Australian population.
Numerator	The number of new cases of: (a) Breast cancer in females (b) Bowel cancer (c) Melanoma of the skin (d) Lung cancer (e) Cervical cancer. For melanoma of the skin, bowel and lung cancer: Number of new cases in the reported year. For cervical and breast cancer in females: Number of new cases in females in the reported year.
Denominator	For melanoma of the skin, bowel and lung cancer: Total population as at 30 June of the reported year. For cervical and breast cancer in females: Total female population as at 30 June of the reported year.
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	AIHW Australian Cancer Database (Annually)
Issues	None identified
Interpretation	In general, a lower rate for this indicator is interpreted as a positive result although increases could be, at least partly, due to early detection via screening and/or improvements in detection methods, which would not be viewed as negative. This indicator should be interpreted in conjunction with Indicator 43 (5-year relative survival for selected cancers), Indicator 27 (HPV immunisation rate) and Indicators 28-30 (Breast, bowel and cervical cancer screening rates).

National Frameworks	NHPF, NHRA PAF, NHA, RoGS. It also relates to Indicator 2 in the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020.
Further information	For more detailed specifications, see METeOR, AIHW's Metadata Online Registry at https://meteor.aihw.gov.au.

24. Non-fatal Burden of Disease (YLD) rate for selected chronic conditions

Description	Number of years of healthy life lost due to living with illness or injury for persons with selected chronic conditions (YLD). YLD represents non-fatal burden.
Rationale	Non-fatal burden of disease (years lived with disability, or YLD) quantifies the impact of living with illness and injury, adjusted for disease severity. It is a summary measure of years spent living in states of less than full health. It is useful for comparisons across conditions, population groups, and/or over time.
Definitions	YLD is a measure (in years) of healthy years of life lost due to living with illness or injury at the population level. YLD is calculated by estimating the point prevalence of each consequence of a condition, or health state, multiplied by a disability weight that adjusts for the severity of that health state. Point prevalence is defined as the number of people with a condition at a particular point in time, for a reference year, and accounts for duration of the consequence experienced (expressed as a fraction of a year). YLD is a population measure influenced by the number of people with each disease, the time spent in less than full health, severity distributions and the disability weights defined for each health state. The disability weights represent the health loss caused by the consequences of each disease. Presented as an age-standardised rate (YLD per 1,000 population). <ins>The selected chronic conditions (as defined for burden of disease analysis) include:</ins> • Coronary heart disease • Back pain & problems • COPD • Lung cancer • Dementia • Anxiety disorders • Stroke • Depressive disorders • Asthma • Diabetes • Bowel cancer. Note: these conditions are as defined for the purpose of burden of disease analysis. In other reporting the specifications for ascertaining prevalence or deaths may be defined differently. Selected chronic conditions are based on those responsible for the most burden in Australia in 2011. Non-specific diseases (such as Other musculoskeletal conditions) and diseases with a considerable acute component were excluded from the selection. Work will continue to refine this list over time to include other relevant conditions.
Numerator	Number of YLD from selected chronic conditions (combined)

Denominator	Total population
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area (Note: Comparable Indigenous results are available for 2003, 2011 and 2018).
Data sources & frequency	The key inputs for estimating YLD are a complete set of point prevalence estimates for the defined consequences of each disease and injury included in the selected chronic conditions list and a set of disability weights reflecting the severity of health loss. The data for this indicator are sourced from the Australian Burden of Disease Study. There are multiple Australian Burden of Disease studies, conducted in 1996, 2003, 2011, 2015 and 2018. The latest study (Australian Burden of Disease Study 2018) comprises comparable estimates for four time points: 2003, 2011, 2015 and 2018. Due to changes in methodology, estimates cannot be compared between studies.
Issues	Specifications for this indicator may be revised to include other chronic conditions. Burden of disease is not a routinely collected measure, it is undertaken intermittently, requires a major analytical process, and the disease-specific methods, evidence and underlying assumptions are constantly evolving.
Interpretation	A lower value for this indicator is interpreted as a positive result. This indicator should be considered in conjunction with Indicators 25 (Disability-adjusted life years (DALY) for selected chronic conditions) and 45 (Fatal Burden of Disease (YLL) for selected chronic conditions).
National Frameworks	This indicator is not currently included in any key national health indicator frameworks.
Further information	Australian Burden of Disease Overview https://www.aihw.gov.au/reports-data/health-conditions-disability-deaths/burden-of-disease/overview.

25. Disability-adjusted life years (DALY) rate for selected chronic conditions

Description	Number of years of healthy life lost due to dying prematurely from or living with the health consequences of selected chronic conditions (DALY).
Rationale	Burden of disease analysis quantifies the fatal and non-fatal impact of a disease or injury on a population, using the disability-adjusted life year (DALY) measure. DALY quantifies time spent living with the health consequences of disease or injury taking into account the severity of health consequences and age at death. It provides summary information on the level and distribution of health in the population, which can be used to compare population health over time and between groups.
Definitions	DALY is a measure (in years) of healthy life lost, either through premature death defined as dying before an ideal life span (YLL) or, equivalently, through living with ill health due to illness or injury (YLD). DALY = YLL + YLD Presented as an age-standardised rate (DALY per 1,000 population). The selected chronic conditions (as defined for burden of disease analysis) include: • Coronary heart disease • Back pain & problems • COPD • Lung cancer • Dementia • Anxiety disorders • Stroke • Depressive disorders • Asthma • Diabetes • Bowel cancer. Note: these conditions are as defined for the purpose of burden of disease analysis and it is possible that in other reporting the specifications for ascertaining prevalence or deaths are defined differently. Selected chronic conditions are based on those responsible for the most burden in Australia in 2011. Non-specific diseases (such as Other musculoskeletal conditions) and diseases with a considerable acute component were excluded from the selection. Work will continue to refine this list over time to include other relevant conditions.
Numerator	Number of DALY from selected chronic conditions (combined)
Denominator	Total population
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area (Note: Comparable Indigenous results are available for 2003, 2011 and 2018).
Data sources & frequency	The data for this indicator are sourced from the most recent Australian Burden of Disease Study. There are multiple Australian Burden of Disease studies, conducted in 1996, 2003, 2011, 2015 and 2018. The latest study (Australian Burden of Disease

	Study 2018) comprises comparable estimates for four time points: 2003, 2011, 2015 and 2018. Due to changes in methodology, estimates cannot be compared between studies.
Issues	Specifications for this indicator may be refined over time to help identify the relevant disease/conditions for inclusion. Burden of disease is not a routinely collected measure, it is undertaken intermittently, requires a major analytical process, and the disease-specific methods, evidence and underlying assumptions are constantly evolving.
Interpretation	A lower value for this indicator is interpreted as a positive result. Indicator 24 (Non-fatal Burden of Disease (YLD) rate for selected chronic conditions) and Indicator 45 (Fatal Burden of Disease (YLL) rate for selected chronic conditions) need to be reviewed alongside this indicator.
National Frameworks	This indicator is not currently included in any key national health indicator frameworks.
Further information	Australian Burden of Disease Overview https://www.aihw.gov.au/reports-data/health-conditions-disability-deaths/burden-of-disease/overview.

Success statement 3: Australians with chronic conditions, or associated risk factors, develop them later in life and receive timely interventions to achieve optimal health outcomes

26. Dental visit in last 12 months

Description	Proportion of people 15 and over who had a dental visit in last 12 months
Rationale	Poor oral health, a chronic condition in its own right, is associated with other chronic conditions including cardiovascular disease, diabetes, osteoporosis and obesity (COAG Health Council 2015). Poor oral health and other chronic conditions share many risk factors including social determinants, smoking, alcohol and diet. A dental visit can provide an opportunity for the provision of preventive dental care to maintain existing oral health, as well as treatment services that may reverse disease or rehabilitate the teeth and gums after damage occurs. Preventive care is most likely to happen in the presence of regular dental visiting for a check-up. Regular dental visits also increase the likelihood that disease will be detected in its early stages and can be managed before significant damage occurs to teeth and gums.
Definitions	Includes visits to dental professionals (which includes dentists, dental hygienists and dental specialists) in private and public dental practices. Presented as a percentage, directly age-standardised to the 2001 Australian population.
Numerator	Number of people aged 15 and over who had made a dental visit in the previous 12 months
Denominator	Total population aged 15 and over
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS Patient Experience Survey (Annually) ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) (Every 6 years)
Issues	Patient Experience Survey excludes people living in discrete Indigenous communities and those in non-private dwellings. Non-Indigenous data from the Patient Experience Survey may not be directly comparable with data for Indigenous people from the NATSIHS.
Interpretation	A higher percentage can be interpreted as a positive result.
National Frameworks	This specific indicator is not currently included in any key national health indicator frameworks. Although, it is similar to key performance indicator 14 in Australia's National Oral Health Plan which recommends an oral health check-up at least every 2 years (COAG Health Council 2015). The NSFCC indicator refers to visits in the last 12 months as it uses data from the ABS Patient Experience Survey which asks about visits in the last 12 months (and is available annually).

Further information	Not applicable

27. HPV immunisation rate

Description	Proportion of 15 year olds immunised for Human papillomavirus (HPV)
Rationale	A high or increasing proportion of adolescents who are fully immunised against human papillomavirus (HPV) indicate a reduction in the risk of contracting HPV, thereby helping to protect against several types of cancer, as well as other conditions such as genital warts. Vaccination rates are indicative of health system quality and effectiveness.
Definitions	Proportion of adolescents aged 15 who are fully immunised against HPV according to the National Immunisation Program. Presented as a percentage.
Numerator	Number of adolescents aged 15 who are fully immunised against HPV for: (a) Females (b) Males.
Denominator	Number of males and females aged 15 registered in the Australian Immunisation Register.
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	Australian Immunisation Register (AIR) (Annually). The National HPV Vaccination Register ceased operations on 31 December 2018, with historical HPV vaccination records transferred to the AIR.
Issues	None identified
Interpretation	A higher value can be interpreted as a positive result.
National Frameworks	NHPF, NHRA PAF, NYIF, RoGS (HPV immunisation is a component of the vaccination related indicators in these frameworks). It also relates to Indicator 24 in the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020.
Further information	Not applicable

28. Breast cancer screening rates

Description	Proportion of the target population screened through BreastScreen Australia
Rationale	Evidence shows that population-based screening of target populations is effective in reducing cancer-related morbidity and mortality. Early detection is associated with more treatment options and improved survival.
Definitions	The proportion of the target population that participated in BreastScreen Australia over a 2-year period. BreastScreen Australia targets women aged 50–74. Presented as a percentage.
Numerator	Number of women aged 50–74 screened
Denominator	Number of women aged 50–74 in the population
Possible disaggregation	Age group / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	State and territory BreastScreen register data (Annually)
Issues	The target population group for BreastScreen Australia was expanded from women aged 50–69 to women aged 50–74 from 1 July 2013.
Interpretation	A higher or increasing participation rate is desirable.
National Frameworks	NHPF, NHRA PAF, RoGS. It also relates to Indicator 25 in the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020.
Further information	AIHW BreastScreen Data Dictionary https://www.aihw.gov.au/reports/cancer-screening/breastscreen-australia-data-dictionary-version-1-2/contents/table-of-contents.

29. Bowel cancer screening rates

Description	Proportion of the target population screened through the National Bowel Cancer Screening Program (NBCSP).
Rationale	Evidence shows that population-based screening of target populations is effective in reducing cancer-related morbidity and mortality. Early detection is associated with more treatment options and improved survival.
Definitions	The proportion of the target population invited to screen through the NBCSP in a 2-year period who returned a completed screening test within the defined 2-year period or the following 6 months. The NBCSP invites all Australians (enrolled in Medicare or with a DVA gold card) aged 50–74 biennially. i.e. 50, 52, 54, 56, 58 etc. Presented as a percentage.
Numerator	The number of people invited to screen through the NBCSP in a 24-month period who returned a completed screening test within the defined 24-month period or the following 6 months.
Denominator	The number of people invited in a defined 24-month period, excluding those who either opted off or suspended without completing a screening test
Possible disaggregation	Age group / Sex / Socioeconomic area / Remoteness area
Data sources & frequency	National Cancer Screening Register data from 2018–2019 (Monthly) and National Bowel Cancer Screening Program for earlier years (six-monthly)
Issues	The National Bowel Cancer Screening Program (NBCSP) is being expanded, and once fully implemented in 2020 will offer free 2-yearly screening for all eligible Australians enrolled in Medicare or with a DVA gold card aged 50–74. Population-based screening should be focused on asymptomatic members of the target population. The current invitation arrangements for the NBCSP mean all people in the target population are invited, regardless of other recent screening or diagnostic tests for bowel cancer they might have had (for example, they have had a colonoscopy in the past two years that was negative). These people are currently invited into the NBCSP but are unlikely to participate (as they are up to date with screening through other tests) meaning the participation rate is lower than it should be. When implemented, the National Cancer Screening Register will be able to exclude target-age invitees who are up to date with screening through private (MBS-claimed) colonoscopies and as a result the program will be more focused on the asymptomatic target age population — and the participation rate more accurate. Reliable participation data are not currently available by Indigenous status.
Interpretation	A higher or increasing participation rate is desirable.
National Frameworks	NHPF, NHRA PAF, RoGS. It also relates to Indicator 25 in the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020.

Further information	For more detailed specifications, see METeOR, AIHW’s Metadata Online Registry at https://meteor.aihw.gov.au.

30. Cervical cancer screening rates

Description	Proportion of the target population screened through the National Cervical Screening Program
Rationale	Evidence shows that population-based screening of target populations and age groups is effective in reducing cancer-related morbidity and mortality. Detection of precancerous abnormalities provides an opportunity for treatment before possible progression to cervical cancer.
Definitions	The proportion of the target population that participated in the National Cervical Screening Program (over a 5-year period). National Cervical Screening Program screens women aged 25–74. Presented as a percentage.
Numerator	Number of women aged 25–74 screened
Denominator	Number of women aged 25–74 in the population (excluding the estimated number of women who have had a hysterectomy).
Possible disaggregation	Age group / Socioeconomic area / Remoteness area
Data sources & frequency	National Cancer Screening Register data for 2018–2019 (Monthly) and State and territory cervical screening register data for earlier years (Annually)
Issues	The cervical program changed to include HPV testing and a 5-year screening interval from 1 December 2017. Interim estimates of participation will be used until there are sufficient data after December 2017 to allow 5-year participation to be calculated. Participation in cervical cancer screening cannot be currently reported nationally for Aboriginal and Torres Strait Islander women.
Interpretation	A higher or increasing participation rate is desirable.
National Frameworks	NHPF, NHRA PAF, RoGS. It also relates to Indicator 25 in the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020.
Further information	AIHW Cervical Data Dictionary https://www.aihw.gov.au/reports/cancer-screening/national-cervical-screening-program-data-dictionary-version-1-0/contents/table-of-contents.

Objective 2: Provide efficient, effective and appropriate care to support people with chronic conditions to optimise quality of life

Success statement 1: Australians with chronic conditions receive coordinated, person-centred and appropriate care

31. Health literacy

Description	Proportion of people aged 15–74 with health literacy above the minimum level regarded as necessary for understanding and using information relating to health issues
Rationale	Health literacy is an important determinant in an individual's ability to interpret and apply medical advice, navigate the healthcare system and self-manage chronic disease. Low levels of health literacy can be associated with higher rates of hospitalisation and emergency care use, as well as premature death among older people, lower participation in preventative programs and poor medication adherence.
Definition	Health literacy is defined in the ABS Adult Literacy and Life Skills Survey (ALLS) as: the knowledge and skills required to understand and use information relating to health issues such as drugs and alcohol, disease prevention and treatment, safety and accident prevention, first aid, emergencies, and staying healthy. A scale of 5 skill levels measures health literacy ranging from Level 1 (lowest) through to Level 5 (highest). Level 3 is regarded as 'the minimum required for individuals to meet the complex demands of everyday life and work in the emerging knowledge-based economy'. Presented as a percentage.
Numerator	Number of people aged 15–74 with a health literacy score of 3 or higher.
Denominator	Total population aged 15–74
Possible disaggregation	Age group / Sex / Remoteness area
Data sources & frequency	ABS Adult Literacy and Life Skills Survey (ALLS) (infrequent, last conducted 2006)
Issues	The ABS ALLS survey is restricted to people aged 15–74 and therefore does not capture the health literacy level of people aged 75 years and over. The ABS conducted a Health Literacy Survey (HLS) in 2018 that measures health literacy across 9 domains. Unlike the ALLS, the 2018 survey will not be able to produce a single measure of 'health literacy' result. A new approach to measuring health literacy needs to be developed based on data from the HLS.
Interpretation	A higher percentage can be interpreted as a positive result.

National frameworks	NHPF.
Further information	Not applicable

32. People deferring access to selected healthcare due to cost

Description	Proportion of people aged 15 and over deferring access to selected healthcare due to cost.
Rationale	Access to health care may be affected because by financial pressures. People with chronic conditions who postpone essential treatments for management of their condition due to cost may jeopardise their health status.
Definitions	Proportion of people aged 15 and over who required treatment but deferred that treatment due to cost, by type of health service. Presented as a percentage.
Numerator	Proportion of people aged 15 and over who reported delaying or not seeking treatment or tests in the last 12 months because of cost for: (a) GP (b) Specialist (c) Prescriptions (d) Dental (e) Pathology/imaging.
Denominator	Total number of people aged 15 and over who, in the last 12 months: (a) saw a GP or needed to see a GP but didn't (b) received a written referral to a specialist by a GP (c) received a prescription for medication from a GP (d) saw a dental practitioner or needed to see a dental practitioner but didn't (e) had a pathology or imaging test or who needed a pathology or imaging test but didn't get one.
Possible disaggregation	Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources	ABS Patient Experience Survey (Annually) ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) (Every 6 years)
Issues	Patient Experience Survey excludes people living in discrete Indigenous communities and those in non-private dwellings. Non–Indigenous data from the Patient Experience Survey may not be directly comparable with data for Indigenous people from the NATSIHS. Pathology and imaging tests exclude those had while in hospital. Imaging tests also exclude those done for dental work. Some people may report pathology and imaging as a referral to a medical specialist.
Interpretation	A lower percentage can be interpreted as a positive result.
National Frameworks	NHPF, RoGS, National Oral Health Plan (related version)
Further information	For more detailed specifications, see METeOR, AIHW's Metadata Online Registry at https://meteor.aihw.gov.au.

33. Patient satisfaction/experience with GPs

Description	Proportion of patients who felt their GP always or often listened, showed respect or spent enough time with them
Rationale	Data on patient experience is of value to both users of health services and those aiming to improve the health system. Good experiences are an important component of quality healthcare, along with clinical effectiveness and patient safety. High quality health care leads to better health outcomes, and barriers to accessing health services may impede the best possible outcome.
Definitions	Satisfaction with key aspects of care received is defined as the proportion of patients who felt their GP always or often: listened carefully to them, showed respect, and spent enough time with them. Presented as a percentage.
Numerator	Number of persons aged 15 and over who saw a GP in the last 12 months who reported their GP always or often: (a) listened carefully to them (b) showed respect (c) spent enough time with them.
Denominator	People aged 15 and over who saw a GP in the last 12 months
Possible disaggregation	Age group / Sex / Socioeconomic area / Remoteness area
Data sources & frequency	ABS Patient Experience Survey (Annually) ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) (Every 6 years)
Issues	Patient Experience Survey excludes people living in discrete Indigenous communities and those in non-private dwellings. Non-Indigenous data from the Patient Experience Survey may not be directly comparable with data for Indigenous people from the NATSIHS.
Interpretation	A higher percentage can be interpreted as a positive result.
National frameworks	NHA (related version).
Further information	For more detailed specifications, see METeOR, AIHW's Metadata Online Registry at https://meteor.aihw.gov.au.

34. Waiting times for GPs

Description	Length of time a person needs to wait to see a general practitioner (GP) for an urgent appointment
Rationale	Long waiting times can lead patients to delay early intervention for their condition, resulting in more serious presentations as their condition worsens. The delay in initial assessment, diagnosis and treatment can result in adverse outcomes for patients.
Definitions	The definition of 'urgent medical care' was left to the respondent. Refers to waiting time for most recent appointment with a GP in the last 12 months. Percentage of people aged 15 and over who waited: • less than 4 hours • 4 hours or more to less than 24 hours • 24 hours or more.
Numerator	Number of people aged 15 and over who reported seeing a GP for urgent medical care (for their own health), by waiting time categories. (a) less than 4 hours (b) 4 hours or more to less than 24 hours (c) 24 hours or more.
Denominator	Number of people aged 15 and over who reported seeing a GP for urgent medical care (for their own health) in the last 12 months.
Possible disaggregation	Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS Patient Experience Survey (Annually) ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) (Every 6 years)
Issues	Patient Experience Survey excludes people living in discrete Indigenous communities and those in non-private dwellings. Interpretation of 'urgent care' was left to the respondent, however interviewer advice was to include health issues that arose suddenly and were serious (e.g. fever, headache, vomiting, unexplained rash). Non–Indigenous data from the Patient Experience Survey may not be directly comparable with data for Indigenous people from the NATSIHS.
Interpretation	A high or increasing proportion of people who saw a GP within 4 hours for urgent medical care indicates more timely access to GPs.
National Frameworks	NHPF, NHRA PAF, NHA, RoGS.
Further information	For more detailed specifications, see METeOR, AIHW's Metadata Online Registry at https://meteor.aihw.gov.au.

35. Full time equivalent health workforce

Description	Full-time equivalent (FTE) employed health practitioners per 100,000 population (for the professions of medical practitioners, nurses/midwives, dental practitioners and registered allied health practitioners).
Rationale	This indicator provides information on the stock of health workers relative to the population. It can be used to monitor whether the size of the current workforce meets a given threshold that should allow the most basic levels of health-care coverage to be achieved across the country (WHO 2010)
Definitions	For this indicator, the workforce for each profession is defined as those employed in the profession. This excludes those who are registered in the profession but are retired from regular work, working outside the profession, working in the profession but on extended leave of 3 months or more or working outside Australia. FTE number = Total hours worked by workforce ÷ Standard working week for selected professions. For the purpose of this indicator, a full-time working week has been defined as 40 hours for medical practitioners and as 38 hours for dental practitioners, nurses and midwives, and registered allied health practitioners.
Numerator	FTE number in the workforce in the reference year by: (a) Medical practitioners (b) Nurses & midwives (c) Registered allied health practitioners (d) Dental practitioners.
Denominator	The total population
Possible disaggregation	Sex / Age group / Remoteness area
Data sources & frequency	National Health Workforce Data Set (NHWDS) (Annually)
Issues	To be completed
Interpretation	A higher value can be interpreted as a positive result.
National Frameworks	NHA
Further information	For more detailed specifications, see METeOR, AIHW’s Metadata Online Registry at https://meteor.aihw.gov.au.

36. Effective management of diabetes

Description	Proportion of people aged 18–69 with known diabetes who have a HbA1c (glycated haemoglobin) level ≤ 7.0%
Rationale	Diabetes was responsible for 2% of the total burden of disease in Australia in 2011 (AIHW 2016). Effective management of diabetes decreases the risk of serious complications of continuing high blood glucose levels including amputations, kidney damage, loss of eyesight and heart disease. HbA1c levels reflect the average blood glucose over the preceding 6–8 weeks and provide an indicator of effective diabetes management. Note that effective management of diabetes is broader than HbA1c levels and also includes such things as management of blood pressure and lipid levels.
Definitions	In the ABS 2011–13 Australian Health Survey, known diabetes is defined as persons self-reporting that they have ever been told by a doctor or nurse that they have diabetes and: • they are taking diabetes medication (insulin or tablets), or • their blood test result for HbA1c was greater than or equal to 6.5%. Effective management of type 2 diabetes is defined as having an HbA1c result of less than or equal to 7.0%. Presented as a percentage, directly age-standardised to the 2001 Australian population.
Numerator	Number of people aged 18–69 with known diabetes who have an HbA1c level of less than or equal to 7.0%
Denominator	Number of people aged 18–69 with known diabetes
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	ABS Australian Health Survey (AHS) 2011–13 (2011–12 Health Measures Survey component); once only. ABS Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS) 2012–13 (Health Measures Survey component); once only.
Issues	It is important to note that this indicator is for people aged 18–69 years and does not measure the effective management diabetes in people aged 70 years and over. This age group (18-69 years) was selected because targets for older people with diabetes are individualised and sometimes more relaxed (RACGP 2020). While the data for this indicator relate to people with all types of known diabetes (excluding gestational diabetes) the target HbA1c of ≤7.0% is not considered appropriate for people with type 1 diabetes. While the type of diabetes cannot be determined from biomedical estimates from the Australian Health Survey, it is assumed that the majority of known diabetes would be type 2 diabetes. No routine data collection for biomedical data.
Interpretation	A higher value can be interpreted as a positive result.

National Frameworks	NHA, Australian National Diabetes Strategy 2016–2020.
Further information	For more detailed specifications, see METeOR, AIHW’s Metadata Online Registry at https://meteor.aihw.gov.au.

37. Potentially preventable hospitalisations for chronic conditions

Description	Rate of selected potentially preventable hospitalisations for chronic conditions
Rationale	Hospitalisations for chronic disease can be reduced with appropriate preventative health interventions and early disease management in primary care and community-based settings.
Definitions	Potentially preventable hospitalisations are those that could have been potentially avoided through the provision of appropriate individualised preventative health interventions and early disease management usually delivered in primary care and community-based care settings (including by general practitioners, medical specialists, dentists, nurses and registered allied health professionals). ICD-10-AM codes used for identifying potentially preventable hospitalisations for chronic conditions are as specified below. See 'Issues' for a note about comparisons over time.

Category	**ICD-10-AM codes**	**ICD-10-AM description**	**Additional requirements**
Asthma	J45	Asthma	As principal diagnosis. Exclude children aged less than 4 years.
	J46	Status asthmaticus	As principal diagnosis. Exclude children aged less than 4 years.
Congestive cardiac failure	I50	Heart failure	As principal diagnosis. Exclude cases with the following cardiac procedure codes: ACHI blocks 600-606, 608-650, 653-657, 660-664, 666, 669-682, 684-691, 693, 705-707, 717 and codes 33172-00[715], 33827-01[733], 34800-00[726], 35412-00[11], 38721-01[733], 90217-02[734], 90215-02[732].
	I11.0	Hypertensive heart diseased with (congestive) heart failure	As principal diagnosis. Exclude cases with the following cardiac procedure codes: ACHI blocks 600-606, 608-650, 653-657, 660-664, 666, 669-682, 684-691, 693, 705-707, 717 and codes 33172-00[715], 33827-01[733], 34800-00[726], 35412-00[11], 38721-01[733], 90217-02[734], 90215-02[732].

	J81	Pulmonary oedema	As principal diagnosis. Exclude cases with the following cardiac procedure codes: ACHI blocks 600-606, 608-650, 653-657, 660-664, 666, 669-682, 684-691, 693, 705-707, 717 and codes 33172-00[715], 33827-01[733], 34800-00[726], 35412-00[11], 38721-01[733], 90217-02[734], 90215-02[732].
Diabetes complications	E10	Type 1 diabetes mellitus	As principal diagnosis.
	E11	Type 2 diabetes mellitus	As principal diagnosis.
	E13	Other specified diabetes mellitus	As principal diagnosis.
	E14	Unspecified diabetes mellitus	As principal diagnosis.
COPD	J20	Acute bronchitis	As principal diagnosis. Only with additional diagnoses of J41, J42, J43, J44.
	J41	Simple and mucopurulent chronic bronchitis	As principal diagnosis.
	J42	Unspecified chronic bronchitis	As principal diagnosis.
	J43	Emphysema	As principal diagnosis.
	J44	Other chronic obstructive pulmonary disease	As principal diagnosis.
Bronchiectasis	J47	Bronchiectasis	As principal diagnosis.
	J20	Acute bronchitis	As principal diagnosis. Only with additional diagnosis of J47.

Angina	I20	Angina pectoris	As principal diagnosis. Exclude cases according to the list of procedures excluded from the congestive cardiac failure category above.
	I24.0	Coronary thrombosis not resulting in myocardial infarction	As principal diagnosis. Exclude cases according to the list of procedures excluded from the congestive cardiac failure category above.
	I24.8	Other forms of acute ischaemic heart disease	As principal diagnosis. Exclude cases according to the list of procedures excluded from the Congestive cardiac failure category above.
	I24.9	Acute ischaemic heart disease, unspecified	As principal diagnosis. Exclude cases according to the list of procedures excluded from the congestive cardiac failure category above.
Iron deficiency anaemia	D50.1	Sideropenic dysphagia	As principal diagnosis.
	D50.8	Other iron deficiency anaemias	As principal diagnosis.
	D50.9	Iron deficiency anaemia, unspecified	As principal diagnosis.
Hypertension	I10	Essential (primary) hypertension	As principal diagnosis. Exclude cases with procedure codes according to the list of procedures excluded from the congestive cardiac failure category above.
	I11.9	Hypertensive heart disease without (congestive) heart failure	As principal diagnosis. Exclude cases with procedure codes according to the list of procedures excluded from the congestive cardiac failure category above.
Nutritional deficiencies	E40	Kwashiorkor	As principal diagnosis.

	E41	Nutritional marasmus	As principal diagnosis.
	E42	Marasmic kwashiorkor	As principal diagnosis.
	E43	Unspecified severe protein-energy malnutrition	As principal diagnosis.
	E55.0	Rickets, active	As principal diagnosis.
	E64.3	Sequelae of rickets	As principal diagnosis.
Rheumatic heart diseases	I00	Rheumatic fever without mention of heart involvement	As principal diagnosis.
	I01	Rheumatic fever with heart involvement	As principal diagnosis.
	I02	Rheumatic chorea	As principal diagnosis.
	I05	Rheumatic mitral valve diseases	As principal diagnosis.
	I06	Rheumatic aortic valve diseases	As principal diagnosis.
	I07	Rheumatic tricuspid valve diseases	As principal diagnosis.
	I08	Multiple valve diseases	As principal diagnosis.
	I09	Other rheumatic heart diseases	As principal diagnosis.

Presented as a rate per 1,000, age standardised to the 2001 Australian population

Numerator	Number of potentially preventable hospitalisations for chronic disease
Denominator	Total population
Possible disaggregation	Sex / Indigenous status / Socioeconomic area / Remoteness area

Data sources & frequency	AIHW National Hospital Morbidity Database (Annually)
Issues	Caution is required in comparing data across reporting periods as ICD-10-AM and ACHI codes and coding standards may have changed. Separations do not include episodes of non-admitted care provided in outpatient clinics or emergency departments.
Interpretation	A lower rate can be interpreted as a positive result.
National Frameworks	NHPF, NHRA PAF, NHA, RoGS. Note that this indicator is a subset of what appears in these Frameworks, as it focusses only on chronic (and not acute) conditions.
Further information	For more detailed specifications, see METeOR, AIHW's Metadata Online Registry at https://meteor.aihw.gov.au.

38. Radiotherapy waiting times

Description	Length of time patients wait for radiotherapy treatment once they are ready-for-care at the 50th (median) and 90th percentiles, for patients whose care is not an emergency as recorded by the clinical emergency indicator.
Rationale	Cancer is a major cause of premature death and the second most common cause of death overall in Australia. Without timely intervention, cancers may progress and patients with early-stage disease may face a reduced opportunity for effective intervention.
Definitions	Length of time patients wait for radiotherapy treatment once they are ready-for-care (in the opinion of the treating clinician) at the 50th (median) and 90th percentiles, for patients whose care is not an emergency as recorded by the clinical emergency indicator. The waiting time is calculated, in days, by subtracting the ready-for-care date from the radiotherapy start date.
Numerator	Number of days waited for radiotherapy at: (a) 50th (median) percentile (b) 90th percentile.
Denominator	Not applicable
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	AIHW Radiotherapy waiting times National Minimum Data Set (Annually)
Issues	None identified
Interpretation	A lower number of days can be interpreted as a positive result.
National Frameworks	Radiotherapy waiting times National Minimum Data Set (NMDS)
Further information	For more detailed specifications, see METeOR, AIHW's Metadata Online Registry at https://meteor.aihw.gov.au.

39. Post-discharge community mental health care

Description	The proportion of separations from state/territory public acute admitted patient mental health care service unit(s) for which a community mental health service contact, in which the consumer participated, was recorded in the 7 days following that separation.
Rationale	A responsive community support system for people who have experienced an acute psychiatric episode requiring hospitalisation is essential to maintain clinical and functional stability and to minimise the need for hospital readmission. Consumers leaving hospital after a psychiatric admission with a formal discharge plan, involving linkages with community services and supports, are less likely to need early readmission. Research indicates that consumers have increased vulnerability immediately following discharge, including higher risk for suicide.
Definitions	State/territory public acute admitted patient mental health care service unit(s) in scope for reporting as defined by the Mental Health Establishments National Minimum Data Set (NMDS) (admissions data). State/territory specialised community mental health care service unit(s) in scope for reporting as defined by the Community Mental Health Care NMDS (post-discharge community contact data). The following separations are excluded: • same-day separations • statistical and change of care type separations • separations that end by transfer to another acute or psychiatric hospital • separations that end in death or left against medical advice/discharge at own risk • separations where length of stay is one night only and procedure code for electroconvulsive therapy (ECT) is recorded • separations that end by transfer to community residential mental health services. The following community mental health service contacts are excluded: • mental health service contacts on the day of separation • contacts where a consumer does not participate. Presented as a percentage.
Numerator	Number of in-scope separations from state/territory public acute admitted patient mental health care service unit(s) for which a community mental health service contact, in which the consumer participated, was recorded in the seven days immediately following that separation.
Denominator	Number of in-scope separations from state/territory public acute admitted patient mental health care service unit(s) occurring within the reference period.
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources	State and territory admitted patient data (Annually)

	State and territory community mental health care data (Annually)
Issues	May underestimate community follow-up as only includes contacts made by state and territory specialised public mental health services (i.e. no GPs, private psychiatrists etc.). States and territories vary in their capacity to accurately track post-discharge follow-up due to lack of patient identifiers or data matching systems. This measure does not consider variations in intensity or frequency of service contacts following separation from hospital.
Interpretation	A higher value can be interpreted as a positive result.
National Frameworks	NHRA PAF, NHA, RoGS. Fifth National Mental Health and Suicide Prevention Plan, National Mental Health Performance Framework.
Further information	For more detailed specifications, see METeOR, AIHW's Metadata Online Registry at https://meteor.aihw.gov.au.

Success statement 2: Australians experience fewer complications, multimorbidities or disabilities associated with chronic conditions

40. Multimorbidities

Description	Proportion of the population with 2 or more selected chronic conditions
Rationale	People with two or more chronic conditions often have complex health needs that require ongoing management and coordination of more specialised care with other parts of the health system. Most people with multiple chronic conditions receive treatment from many health providers: most of them working in different locations, and often working in different parts of the health system (Department of Health 2015). Understanding more about multimorbidities can provide vital information for prevention, management and treatment of chronic conditions.
Definitions	For the purpose of this indicator, multimorbidity refers to the occurrence of 2 or more of the following conditions in a person at the same time: • Arthritis • Asthma • Back problems (dorsopathies) • Cancer (malignant neoplasms) • Selected cardiovascular diseases (selected heart, stroke and vascular disease) • COPD • Diabetes mellitus • Chronic kidney disease • Mental and behavioural conditions • Osteoporosis. Presented as a percentage, directly age-standardised to the 2001 Australian population.
Numerator	Number of people with 2 or more selected chronic conditions
Denominator	Total population
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic status / Remoteness area
Data sources & frequency	ABS National Health Survey (Every 3 years) ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) (Every 6 years)
Issues	Data are self-reported survey results and are subject to recall bias and sampling errors. In future, linked data may be able to be used to report against this indicator. Definitions of certain chronic conditions have changed across health surveys.
Interpretation	A lower percentage can be interpreted as a positive result.

National Frameworks	This indicator is not currently included in any key national health indicator frameworks.
Further information	Not applicable

41. Prevalence of treated end-stage kidney disease among people with diabetes

Description	Prevalence of treated end-stage kidney disease among people with self-reported diabetes
Rationale	Diabetes has a complex causal relationship with chronic kidney disease and shares many risk factors. End-stage kidney disease (ESKD) is the most severe stage of chronic kidney disease, where kidney function deteriorates so much that treatment by way of dialysis or kidney transplantation is required to survive.
Definitions	Numerator: the number of people registered with ANZDATA as receiving dialysis or kidney transplantation who also have a comorbidity of diabetes noted on their record as the numerator. Denominator: the number of people in the NHS who reported having been told by a doctor or nurse that they had diabetes, irrespective of whether the person considered their diabetes to be current or long-term. Presented as a rate, directly age-standardised to the 2001 Australian population.
Numerator	Number of people with treated end-stage kidney disease and diabetes
Denominator	Number of people with self-reported diabetes
Possible disaggregation	Age group / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	Australia and New Zealand Dialysis and Transplant Registry (ANZDATA) (numerator) ABS National Health Survey (NHS) (Every 3 years) (denominator)
Issues	This is a proxy measure based on the prevalence of self-reported diabetes from the NHS and the prevalence of treated ESKD from ANZDATA. This method is likely to underestimate the total population of people with diabetes as some people are unaware they have the condition. As not all people with ESKD will receive treatment and be registered with ANZDATA, this method may also underestimate the total number of people with diabetes who also have ESKD.
Interpretation	A lower value can be interpreted as a positive result.
National Frameworks	Australian National Diabetes Strategy 2016–2020.
Further information	Australian National Diabetes Strategy 2016–2020. https://www.health.gov.au/resources/publications/australian-national-diabetes-strategy-2016-2020.

42. Hospitalisation for lower-limb amputation with type 2 diabetes as a principal or additional diagnosis

Description	Proportion of people aged 18 and over who have had a lower-limb amputation with type 2 diabetes as a principal or additional diagnosis
Rationale	Amputation is a major complication of diabetes and presents high costs to the Australian health system. It is often preventable.
Definitions	Lower-limb amputation (ACHI procedure codes: 44338-00, 44358-00, 44361-00, 44361-01, 44364-00, 44364-01, 44370-00, 44373-00, 44367-00, 44367-01, 44367-02, 90557-00). See 'Issues' for a note about comparisons over time. Type 2 diabetes (ICD-10-AM codes: E11). Presented as a rate, directly age-standardised to the 2001 Australian population.
Numerator	Number of hospitalisations for lower-limb amputation with type 2 diabetes as a principal or additional diagnosis
Denominator	Total population aged 18 and over
Possible disaggregation	Age groups / Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	AIHW National Hospital Morbidity Database
Issues	Changes to the codes and Australian Coding Standards between ICD-10-AM editions have resulted in fluctuations in the reporting of diagnoses for diabetes over time. Therefore, caution should be used in comparing current estimates with those for earlier years. Current national hospitalisation data, based on episodes of care, does not allow major, minor, initial or recurrent amputations to be identified. Patients may undergo repeat amputation of the same limb if the disease progresses along the limb or if the first amputation fails to heal. Hospitalisation data is based on episodes of care, and it is not possible to link records of multiple hospitalisations in the database to individuals.
Interpretation	A lower value can be interpreted as a positive result.
National Frameworks	RoGS, Australian National Diabetes Strategy 2016–2020.
Further information	Australian National Diabetes Strategy 2016–2020. https://www.health.gov.au/resources/publications/australian-national-diabetes-strategy-2016-2020.

Success statement 3: Fewer Australians die prematurely due to specific chronic conditions

43. 5-year relative survival for selected cancers

Description	The probability that a person diagnosed with cancer will survive for at least 5 years after diagnosis, adjusted by taking into account mortality from other causes.
Rationale	Cancer is the leading cause of total burden of disease in Australia which is mainly due to premature death (AIHW 2017). For cancer, survival together with incidence is more informative than prevalence and/or incidence on its own.
Definitions	Relative survival refers to the probability of being alive for a given amount of time after diagnosis relative to people of the same age and sex in the general population. A 5-year relative survival figure of 100% means that the cancer has no impact on the person's chance of still being alive 5 years after diagnosis, whereas a figure of 50% means that the cancer has halved that chance. The selected cancers are: breast, bowel, melanoma of the skin, lung and cervical. Presented as a percentage.
Numerator	Observed survival - proportion of cancer patients still alive 5 years after their diagnosis (calculated from population-based cancer data). (a) Breast cancer in females (b) Bowel cancer (c) Melanoma of the skin (d) Lung cancer (e) Cervical cancer.
Denominator	Expected survival - proportion of people in the general population, matched to the cancer cohort by age and sex, who would be expected to be alive 5 years after the matched patient's date of diagnosis (calculated from life tables of the entire Australian population).
Possible disaggregation	Age group / Sex
Data sources & frequency	AIHW Australian Cancer Database (Annually)
Issues	Complete life tables from age 0 to 100+, which are required to calculate relative survival, are not currently produced by Indigenous status, remoteness or socioeconomic area and hence it is not possible to disaggregate by these population groups.
Interpretation	A high percentage can be interpreted as a positive result. This indicator should be interpreted in conjunction with Indicator 23 (Incidence of selected cancers) and Indicators 28-30 (Breast, bowel and cervical screening rates)
National Frameworks	NHA (related version).

Further information	Not applicable

44. Potentially avoidable deaths for selected chronic conditions

<table>
<tr><td>Description</td><td>Deaths from selected chronic conditions that are potentially avoidable</td></tr>
<tr><td>Rationale</td><td>Deaths from certain causes are potentially avoidable in the presence of timely and effective health care, including prevention. Potentially avoidable deaths serve to focus attention on a portion of population health attainment that can potentially be influenced by the health system.</td></tr>
<tr><td>Definitions</td><td>
<p>Deaths are defined as avoidable in the present health care system.</p>
<p>The rate of deaths each year of people aged less than 75 years from selected chronic conditions that are potentially preventable through individualised care and/or treatable through existing primary or hospital care.</p>
<p>Presented as a rate per 100,000 population, directly standardised to the 2001 Australian population.</p>
<p>Selected conditions and International Classification of Diseases (ICD-10) codes in scope are as specified below; 2013 data are coded using ICD-10 (2013 version). 2014, 2015, 2016 and 2017 data are coded using ICD-10 (2015 version):</p>
<table>
<tr><th>Cause of death groups / Causes</th><th>ICD-10 Codes</th></tr>
<tr><td>Cancer</td><td></td></tr>
<tr><td>Colorectal</td><td>C18–C21</td></tr>
<tr><td>Skin</td><td>C43, C44</td></tr>
<tr><td>Breast</td><td>C50 (females)</td></tr>
<tr><td>Cervix</td><td>C53</td></tr>
<tr><td>Prostate</td><td>C61</td></tr>
<tr><td>Kidney</td><td>C64</td></tr>
<tr><td>Thyroid</td><td>C73</td></tr>
<tr><td>Hodgkin’s disease</td><td>C81</td></tr>
<tr><td>Acute lymphoid leukaemia/Acute lymphoblastic leukaemia</td><td>C91.0 (0–44 years)</td></tr>
<tr><td>Diabetes</td><td>E10–E14</td></tr>
<tr><td>Diseases of the circulatory system</td><td></td></tr>
<tr><td>Rheumatic and other valvular heard disease</td><td>I00–I09, I33–I37</td></tr>
<tr><td>Hypertensive heart and renal disease</td><td>I10–I13</td></tr>
<tr><td>Ischaemic heart disease</td><td>I20–I25</td></tr>
<tr><td>Cerebrovascular diseases</td><td>I60–I69</td></tr>
<tr><td>Heart failure</td><td>I50, I51.1, I51.2, I51.4, I51.5</td></tr>
<tr><td>Pulmonary embolism</td><td>I26</td></tr>
<tr><td>Diseases of the genitourinary system</td><td></td></tr>
<tr><td>Chronic renal failure</td><td>N18–N19</td></tr>
<tr><td>Diseases of the respiratory system</td><td></td></tr>
<tr><td>COPD</td><td>J40–J44</td></tr>
<tr><td>Asthma</td><td>J45, J46</td></tr>
</table>
</td></tr>
</table>

	Diseases of the digestive system | Peptic ulcer disease | K25.4–K25.9, K26.4–K26.9, K27.4–K27.9
Numerator	Number of deaths of people aged less than 75 categorised as potentially avoidable
Denominator	Total population aged less than 75
Possible disaggregation	Sex / Indigenous status / Socioeconomic area / Remoteness area
Data sources & frequency	AIHW National Mortality Database (Annually)
Issues	Deaths are counted according to year of registration of death, not necessarily the year in which the death occurred. Deaths registered in 2016 and earlier are based on the final version of cause of death data; deaths registered in 2017 are based on revised data; deaths registered in 2018 and 2019 are based on preliminary data. Revised and preliminary data are subject to further revision by the ABS. It is important to note that this indicator is restricted to deaths in people aged less than 75 years. Data by Indigenous status are shown for NSW, Qld, WA, SA and the NT (state of usual residence) combined. The information on Indigenous status in these jurisdictions is considered to be of sufficient completeness for reporting. Data have been adjusted for Victorian additional death registrations in 2019. A time series adjustment has been applied to causes of death to enable a more accurate comparison of mortality over time. When the time series adjustment is applied, deaths are presented in the year in which they were registered (i.e. removed from 2019 and added to 2017 or 2018). For more detail, please refer to Technical note: Victorian additional registrations and time series adjustments in Causes of death, Australia, 2019
Interpretation	A lower rate for this indicator can be interpreted as a favourable result. This indicator should be assessed with knowledge of the prevalence of the selected conditions to determine if a lower rate is due to people living longer with the chronic condition or if the prevalence of the condition has reduced.
National Frameworks	NHPF, NHRA PAF, NHA, RoGS. Note that this indicator is a subset of what appears in these Frameworks, as it focusses only on selected chronic conditions.
Further information	For more detailed specifications, see METeOR, AIHW’s Metadata Online Registry at https://meteor.aihw.gov.au.

45. Fatal Burden of Disease (YLL) rate for selected chronic conditions

Description	Number of years of life lost due to premature death from selected chronic conditions (YLL). YLL represents fatal burden.
Rationale	Fatal burden of disease (years of life lost, or YLL) quantifies the burden from dying 'prematurely'. It is useful for comparisons across conditions, population groups, and/or over time.
Definitions	YLL measures the years of life lost due to premature death, defined as dying before an ideal life span. Presented as an age-standardised rate per 1,000 population. The selected chronic conditions (as defined for burden of disease analysis) include: • Coronary heart disease • Back pain & problems • COPD • Lung cancer • Dementia • Anxiety disorders • Stroke • Depressive disorders • Asthma • Diabetes • Bowel cancer Note: these conditions are as defined for the purpose of burden of disease analysis, and it is possible that in other reporting the specifications for ascertaining prevalence or deaths are defined differently. Selected chronic conditions are based on those responsible for the most burden in Australia in 2011. Non-specific diseases (such as Other musculoskeletal conditions) and diseases with a considerable acute component were excluded from the selection. Work will continue to refine this list over time to include other relevant conditions.
Numerator	Number of YLL from selected chronic conditions (combined)
Denominator	Total population
Disaggregation	Condition / Age group/ Sex / Indigenous status / Socioeconomic area / Remoteness area (Note: Comparable Indigenous results are available for 2003, 2011 and 2018).
Data sources & frequency	The data for this indicator are sourced from the most recent Australian Burden of Disease Study. There are multiple Australian Burden of Disease studies, conducted in 1996, 2003, 2011, 2015 and 2018. The latest study (Australian Burden of Disease Study 2018) comprises comparable estimates for four time points: 2003, 2011, 2015 and 2018. Due to changes in methodology, estimates cannot be compared between studies.
Issues	Specifications for this indicator may be refined over time to help identify the relevant disease/conditions for inclusion.

	Burden of Disease is not a routinely collected measure, it is undertaken intermittently, requires a major analytical process, and the disease-specific methods, evidence and underlying assumptions are constantly evolving.
Interpretation	A lower value can be interpreted as a positive result. This indicator should be considered in conjunction with Indicators 24 (Non-fatal Burden of Disease (YLD) for selected chronic conditions) and 25 (Disability-adjusted life years (DALY) for selected chronic conditions).
National Frameworks	This indicator is not currently included in any key national health indicator frameworks.
Further information	Australian Burden of Disease Overview https://www.aihw.gov.au/reports-data/health-conditions-disability-deaths/burden-of-disease/overview.

Objective 3: Target priority populations

Success statement 1: Priority populations have reduced risk of developing chronic conditions

Success statement 2: Priority populations experience fewer complications, multimorbidities or disabilities associated with chronic conditions

Success statement 3: Aboriginal and Torres Strait Islander people have reduced risk of developing chronic conditions and those with chronic conditions have an improved life expectancy

No unique indicators were selected for this reporting framework. Rather, data in indicators developed for Objectives 1 and 2 will be disaggregated at a population level—see page 13 for more details.

Appendix A: Expert consultation

A consultation of experts to develop and refine the NSFCC: reporting framework took place during December 2018–January 2019.

Participants in the expert consultation are listed below.

Expert	Area of expertise
Justine Boland	ABS data sources
Tom Briffa	Cardiovascular
Anne Chang	Respiratory
Derek Chew	Cardiovascular
Flavia Cicuttini	Musculoskeletal
Maria Craig	Diabetes
Wendy Davis	Diabetes
Debra Kay	Respiratory
Shyamali Dharmage	Respiratory
Annette Dobson	Burden of Disease
Bettina Douglas	Chronic kidney disease
Peter Ebeling	Musculoskeletal
James Eynstone-Hinkins	ABS data sources
Louise Gates	ABS data sources
Mark Harris	Diabetes
Christine Jenkins	Respiratory
Greg Johnson	Diabetes
Chris Maher	Musculoskeletal
Ian Olver	Cancer
Christian Osadnik	Respiratory
Jonathon Shaw	Diabetes
Pam Webster	Musculoskeletal

Appendix B: NSFCC and WHO reporting

Success statement 2: Australia meets the voluntary global targets outlined in the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020

In 2013, the World Health Organization released the *Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020* (WHO 2013*).* The Global Action Plan aims to reduce the global burden of NCDs by 2025.

The main focus of this action plan is on four types of NCD—cardiovascular disease, cancer, chronic respiratory diseases, and diabetes—which make the largest contribution to morbidity and mortality due to NCDs, and on four shared behavioural risk factors—tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol.

A global monitoring framework including 25 indicators and a set of nine voluntary global targets were proposed to track the implementation of the action plan.

The NSFCC outlined that measures developed to monitor progress against its objectives should, where possible, align with Australia's international reporting requirements for the WHO *Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020.* Table 4, below, lists the 9 targets, the 25 related indicators, and maps their correspondence to NSFCC indicators.

Australia's results for the 9 voluntary targets are published by the WHO, most recently in 2018 (WHO 2018).

Table 4: WHO targets and indicators and correspondence to NSFCC indicators

WHO framework element	WHO target	WHO indicator	NSFCC correspondence
Mortality & morbidity			
Premature mortality from non-communicable disease	1. A 25% relative reduction in the overall mortality from cardiovascular disease, cancer, diabetes, or chronic respiratory diseases	1. Unconditional probability of dying between ages of 30 and 70 from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases	**X 1.** This indicator was not included. Data are calculated by WHO and not available for routine reporting in Australia
		Additional indicator: 2. Cancer incidence, by type of cancer, per 100 000 population	✓ **2.** The NSFCC: reporting framework includes the incidence of 5 cancers—**see 'Indicator 23'.**

(continued)

Table 4 (continued): WHO targets and indicators and correspondence to NSFCC indicators

Behavioural risk factors			
Harmful use of alcohol	2. At least 10% relative reduction in the harmful use of alcohol, as appropriate within the national context	3. Total (recorded and unrecorded) alcohol per capita (aged 15+ years old) consumption within a calendar year in litres of pure alcohol, as appropriate, within the national context 4. Age-standardized prevalence of heavy episodic drinking among adolescents and adults, as appropriate, within the national context 5. Alcohol-related morbidity and mortality among adolescents and adults, as appropriate, within the national context	✓ **3.**The NSFCC: reporting framework includes the harmful use of alcohol—**see ‘Indicator 6’** on alcohol consumption. Note, it is not expected that all 3 indicators will be reported against. The WHO states ‘Countries will select indicator(s) of harmful use as appropriate to national context and in line with WHO’s global strategy to reduce the harmful use of alcohol and that may include prevalence of heavy episodic drinking, total alcohol per capita consumption, and alcohol-related morbidity and mortality, among others’ (WHO 2013). The NSFCC indicator aligns with Australian Guidelines to reduce health risks from drinking alcohol (NHMRC 2009).

(continued)

Table 4 (continued): WHO targets and indicators and correspondence to NSFCC indicators

Physical inactivity	3. A 10% relative reduction in prevalence of insufficient physical activity	6. Prevalence of insufficiently physically active adolescents, defined as less than 60 minutes of moderate to vigorous intensity activity daily 7. Age-standardized prevalence of insufficiently physically active persons aged 18+ years (defined as less than 150 minutes of moderate-intensity activity per week, or equivalent)	✓ **6.** The NSFCC: reporting framework covers insufficient physical inactivity in young people—**see 'Indicator 8'**. ✓ **7.** The NSFCC: reporting framework covers insufficient physical inactivity in adults—**see 'Indicator 8'.** The 150 minutes threshold for adults in the WHO indicator aligns with the NSFCC indicator. However, the NSFCC indicator includes an additional aspect of days per week in line with *Australia's Physical Activity and Sedentary Behaviour Guidelines* (Department of Health 2017b).
Salt/sodium intake	4. A 30% relative reduction in mean population intake of salt/sodium	8. Age-standardized mean population intake of salt (sodium chloride) per day in grams in persons aged 18+ years	✓ **8.** The NSFCC: reporting framework covers sodium intake—**see 'Indicator 10'**. However, data availability is an issue.
Tobacco use	5. A 30% relative reduction in prevalence of current tobacco use in persons aged 15+ years	9. Prevalence of current tobacco use among adolescents 10. Age-standardized prevalence of current tobacco use among persons aged 18+ years	✓**9 and 10.** The NSFCC reporting framework covers tobacco use among adolescents and adults—**see 'Indicator 7'**. Note, the WHO adolescents indicator refers to '10–19 year olds or according to country definition' (WHO 2014); the NSFCC indicator relates to 12–17 year olds.

(continued)

Table 4 (continued): WHO targets and indicators and correspondence to NSFCC indicators

Biological risk factors			
Raised blood pressure	6. A 25% relative reduction in the prevalence of raised blood pressure or contain the prevalence of raised blood pressure, according to national circumstances	11. Age-standardized prevalence of raised blood pressure among persons aged 18+ years (defined as systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg) and mean systolic blood pressure	✓ **11.** The NSFCC: reporting framework covers raised blood pressure —**see 'Indicator 11'**. However, the NSFCC indicator also includes those taking medication for high blood pressure.
Diabetes and obesity	7. Halt the rise in diabetes and obesity	12. Age-standardized prevalence of raised blood glucose/diabetes among persons aged 18+ years (defined as fasting plasma glucose concentration ≥ 7.0 mmol/l (126 mg/dl) or on medication for raised blood glucose) 13. Prevalence of overweight and obesity in adolescents (defined according to the WHO growth reference for school-aged children and adolescents, overweight – one standard deviation body mass index for age and sex, and obese – two standard deviations body mass index for age and sex) 14. Age-standardized prevalence of overweight and obesity in persons aged 18+ years (defined as body mass index ≥ 25 kg/m² for overweight and body mass index ≥ 30 kg/m² for obesity)	✓**12.** The NSFCC: reporting framework covers raised blood glucose levels—**see 'Indicator 13'** (and also the prevalence of type 2 diabetes based on self-reported data—**see Indicator 20).** ✓**13.** The NSFCC: reporting framework covers overweight and obesity in children—**see 'Indicator 14'**. ✓**14.** The NSFCC: reporting framework covers overweight and obesity in adults—**see 'Indicator 14'**.

(continued)

Table 4 (continued): WHO targets and indicators and correspondence to NSFCC indicators

		Additional indicators: 15. Age-standardized mean proportion of total energy intake from saturated fatty acids in persons aged 18+ years	**X 15.** The NSFCC: reporting framework does not contain an indicator on energy intake from saturated fatty acids (there is a dietary indicator on inadequate fruit and vegetable intake, see below, for which the data is available more frequently than that for energy intake from saturated fatty acids).
		16. Age-standardized prevalence of persons (aged 18+ years) consuming less than five total servings (400 grams) of fruit and vegetables per day	✓**16.** The NSFCC: reporting framework covers inadequate fruit and vegetable intake—**see 'Indicator 9'.** However, the WHO indicator reports against 5 total servings of fruit and vegetables per day whereas the NSFCC indicator reports inadequate fruit and/or vegetable consumption with definitions varying by age and sex, in accordance with the *Australian Dietary Guidelines* (NHMRC 2013).
		17. Age-standardized prevalence of raised total cholesterol among persons aged 18+ years (defined as total cholesterol ≥5.0 mmol/l or 190 mg/dl); and mean total cholesterol concentration	✓**17.** The NSFCC: reporting framework covers abnormal blood lipids which includes raised total cholesterol—**see 'Indicator 12'.** However, the NSFCC indicator uses a definition of total cholesterol ≥5.5 mmol/l.

(continued)

Table 4 (continued): WHO targets and indicators and correspondence to NSFCC indicators

National Systems response			
Drug therapy to prevent heart attacks and strokes	8. At least 50% of eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes	18. Proportion of eligible persons (defined as aged 40 years and older with a 10-year cardiovascular risk ≥30%, including those with existing cardiovascular disease) receiving drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes	**X18.** This indicator was not included in the NSFCC: reporting framework as national data are not available to report against this.
Essential noncommunicable disease medicines and basic technologies to treat major noncommunicable diseases	9. An 80% availability of the affordable basic technologies and essential medicines, including generics, required to treat major noncommunicable diseases in both public and private facilities	19. Availability and affordability of quality, safe and efficacious essential NCD medicines, including generics, and basic technologies in both public and private facilities	**X19.** This indicator was not included in the NSFCC: reporting framework.

(continued)

Table 4 (continued): WHO targets and indicators and correspondence to NSFCC indicators

		Additional indicators:	
		20. Access to palliative care assessed by morphine-equivalent consumption of strong opioid analgesics (excluding methadone) per death from cancer	**X20.** This additional indicator was not included in the NSFCC: reporting framework.
		21. Adoption of national policies that limit saturated fatty acids and virtually eliminate partially hydrogenated vegetable oils in the food supply, as appropriate, within the national context and national programmes	**X21.** This additional indicator was not included in the NSFCC: reporting framework.
		22. Availability, as appropriate, if cost-effective and affordable, of vaccines against human papillomavirus (HPV), according to national programmes and policies	✓**22.** The NSFCC: reporting framework covers HPV immunisation—see ‘**Indicator 27’.**
		23. Policies to reduce the impact on children of marketing of foods and non-alcoholic beverages high in saturated fats, trans fatty acids, free sugars, or salt	**X23.** The NSFCC: reporting framework does not contain an indicator on these policies.
		24. Vaccination coverage against hepatitis B virus monitored by number of third doses of Hep-B vaccine (HepB3) administered to infants	**X24.** This additional indicator (on hepatitis B vaccination coverage) was not included in the NSFCC: reporting framework.
		25. Proportion of women between the ages of 30–49 screened for cervical cancer at least once, or more often, and for lower or higher age groups according to national programmes or policies	✓**25.** The NSFCC: reporting framework covers cervical cancer screening according to Australia’s National Cervical Screening program criteria—see ‘**Indicator 30’.**

Appendix C: Data sources

Australian Bureau of Statistics (ABS)

ABS Australian Aboriginal and Torres Strait Islander Health Survey (AATSIHS) 2012–13, (includes the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS), National Aboriginal and Torres Strait Islander Nutrition and Physical Activity Survey & National Aboriginal and Torres Strait Islander Health Measures Survey components)

The AHS includes a nationally representative sample of around 13,000 Aboriginal and Torres Strait Islander people. As part of the AHS, the AATSIHS which commenced in April 2012 collected information from the Aboriginal and Torres Strait Islander population in non-remote areas and remote areas, including discrete communities. It combines the existing NATSIHS together with two new elements - a National Aboriginal and Torres Strait Islander Nutrition and Physical Activity Survey (NATSINPAS) and a National Aboriginal and Torres Strait Islander Health Measures Survey (NATSIHMS).

Further information on the AATSIHS 2012–13 can be found at the ABS website: http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4727.0.55.002Main+Features12012-13?OpenDocument.

ABS Australian Demographic Statistics

A quarterly release that contains the most recent estimates of the resident populations (ERP) of Australia. It is based on the most recent Census, with various adjustments for births, deaths and overseas and interstate migration.

Further information on ERPs can be found at the ABS website: http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/3101.0Explanatory%20Notes1Sep%202018?OpenDocument.

ABS Australian Health Survey (AHS) 2011–13, (includes the National Health Survey, Health Measures Survey & National Nutrition and Physical Activity Survey components 2011–12)

The AHS 2011–13 is the largest and most comprehensive household health survey ever conducted in Australia, with a sample of around 20,500 people. The AHS collected new information on nutrition and physical activity, as well as the first national biomedical information collection. This survey was designed to collect a range of information from Australians about health related issues, including health status, risk factors, actions, and socioeconomic circumstances; health-related aspects of people's lifestyles, such as smoking, measured height, weight and blood pressure, diet, exercise and physical activity and alcohol consumption; use of health services such as consultations with health practitioners and actions people have recently taken for their health; and demographic and socioeconomic characteristics. The AHS does not include *Very remote* areas of Australia so gaps exist in the availability and coverage of health data in very remote areas, and in information available at local level.

Further information on the AHS 2011–13 can be found at the ABS website: http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4363.0.55.001Chapter2002011-13.

ABS Labour Force Survey (LFS) (including labour force supplementary surveys) 2019

The LFS is monthly survey based on a multi-stage area sample of private dwellings (currently approximately 26,000 houses, flats, etc.), a list sample of non-private dwellings and covers approximately 0.32% of the civilian population of Australia aged 15 years and over. Data is available by labour force status (i.e. employed, unemployed and not in the labour force) and age, sex, social marital status, state or territory of residence, full-time educational attendance, plus a range of other variables related to the employed/unemployed.

Further information on the LFS 2019 can be found at the ABS website: http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6102.0.55.001Main+Features53Feb%202018?OpenDocument.

ABS National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) 2018–19

The NATSIHS was last conducted in 2018–19 with a sample of approximately 10,500 Aboriginal and Torres Strait Islander people living in private dwellings across Australia. It is conducted in remote and non-remote areas throughout Australia, including discrete communities, and is designed to collect a range of information from Indigenous Australians about health-related issues, including health status, risk factors and actions, and socioeconomic circumstances.

Further information on the NATSIHS 2018–19 can be found at the ABS website: https://www.abs.gov.au/methodologies/national-aboriginal-and-torres-strait-islander-health-survey-methodology/2018-19#explanatory-notes.

ABS National Aboriginal and Torres Strait Islander Social Survey (NATSISS) 2014–15

The NATSISS was last conducted in 2014–15 with a sample of 11,178 Aboriginal and Torres Strait Islander people living in private dwellings across Australia. The NATSISS is a six-yearly multidimensional social survey which provides broad, self-reported information across key areas of social interest for Aboriginal and Torres Strait Islander people, primarily at the national level and by remoteness. The survey collected information from the Aboriginal and Torres Strait Islander population in non-remote areas and remote areas, including discrete communities.

Further information on the NATSISS 2014–15 can be found at the ABS website: http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4714.0Explanatory%20Notes12014-15?OpenDocument.

ABS National Health Survey (NHS) 2017–18

This NHS is a household survey that is a key source of information on the health of Australians, with a sample size of around 21,300 people. The survey provides data such as prevalence long-term health conditions; health risk factors such as smoking, measured height weight and blood pressure, diet, exercise and alcohol consumption; and demographic and socioeconomic characteristics. Surveys are usually conducted every 3 years with the latest survey used in this report being 2017–18. Previous surveys were conducted in 1989–90, 1995, 2001, 2004–05, 2007–08, 2011–12 (as part of the Australian Health Survey) and 2014–15. Health surveys conducted by the ABS in 1977–78 and 1983, while not part of the NHS series, also collected similar information. The NHS does not include *Very remote* areas of Australia, so gaps exist in the availability and coverage of health data in very remote areas, and in information available at local level. It also excludes non-private dwellings such as hotels, motels, hospitals, nursing homes and short-stay caravan parks so may impact estimates for older people and those with long-term conditions that require periods of hospitalisation or long-term care.

Further information on the NHS 2017–18 can be found at the ABS website: http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4364.0.55.001Explanatory%20Notes12017-18?OpenDocument.

ABS National Survey of Mental Health and Wellbeing 2007

The survey provides information on the prevalence of selected lifetime and 12-month mental disorders by three major disorder groups: anxiety disorders (e.g. Social Phobia), Affective disorders (e.g. Depression) and Substance Use disorders (e.g. Alcohol Harmful Use). It also provides information on the level of impairment, the health services used for mental health problems, physical conditions, social networks and caregiving, as well as demographic and socio-economic characteristics. The survey is conducted from approximately 8,800 Australians aged 16-85 years.

Further information on the National Survey of Mental Health and Wellbeing 2007 can be found at the ABS website: http://www.abs.gov.au/ausstats/abs@.nsf/mf/4326.0.

ABS Survey of Education and Work (SEW) 2019

The SEW is an annual collection, which was most recently conducted throughout Australia as a supplement to the monthly Labour Force Survey. The survey provides annual information on a range of key indicators of educational participation and attainment of persons aged 15–74 years, along with data on people's transition between education and work. The annual time series allows for ongoing monitoring of the level of education of Australia's population including participation in current and previous study; type of educational institution attended; highest year of school completed; level and field of highest non-school qualification; characteristics of people's transition between education and work; and selected characteristics of apprentices and trainees.

Further information on the SEW can be found at the ABS website: https://www.abs.gov.au/ausstats/abs@.nsf/mf/6227.0.

ABS Survey of Income and Housing (SIH) 2017–18

The SIH provides detailed estimates of household income, wealth and expenditure collected from individual households. These estimates are used to analyse the distribution of economic resources and expenditure across the population, and to compare the financial resources available to various population subgroups. The SIH is conducted biennially and enumerated over a 12-month period - Estimates for 2003–04, 2005–06, 2007–08, 2009–10, 2011–12, 2013–14 and 2015–16 (SIH years) relates to ‘current’ financial year income which is based on estimates of usual income being received at the time the data were collected from respondents.

Further information on the SIH can be found at the ABS website: https://www.abs.gov.au/ausstats/abs@.nsf/mf/6523.0.

ABS Patient Experience Survey (PEx) 2018–19

The Patient Experience Survey (PEx) is conducted annually by the Australian Bureau of Statistics (ABS) and collects national data on access and barriers to a range of health care services, including general practitioners, medical specialists and dental professionals, imaging and pathology tests, and hospital/emergency visits. Data is also collected on aspects of communication between patients and health professionals.

Further information on the PEx can be found at the ABS website: https://www.abs.gov.au/ausstats/abs@.nsf/mf/4839.0.

ABS Adult Literacy and Life Skills Survey (ALLS) 2006

This Adult Literacy and Life Skills Survey (ALLS) analyses the relationship between health literacy skills and a range of socio-demographic factors The ALLS is the second survey of its type to be conducted in Australia.

Further information on the ALLS 2006 can be found at the ABS website: https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4228.0Main+Features12006%20(Reissue)?OpenDocument.

ABS Health Literacy Survey (HLS) 2018

The Health Literacy Survey (HLS) was conducted by the ABS in 2018. The sample for the HLS was respondents aged 18 years and over who had already participated in the National Health Survey (NHS 2017–18). These respondents agreed to be contacted for further ABS surveys and had provided their contact details. The HLS was conducted from January 2018 to August 2018 with 5,790 fully responding adults.

Further information on the HLS can be found at the ABS website: https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4364.0.55.014Main+Features12018?OpenDocument.

Australian Institute of Health and Welfare (AIHW)

AIHW Australian Burden of Disease Study (ABDS)

The latest ABDS 2018 provides Australian-specific burden of disease estimates for the Australian population for 2003, 2011, 2015 and 2018. The study aims to measure the combined impact of dying prematurely, as well as living with disease. More than merely counting deaths or disease incidence and prevalence, burden of disease analysis takes into account age at death and severity of disease for all diseases, conditions and injuries, in a consistent and comparable way. The ABDS uses and adapts the methods of global studies to produce estimates that are more relevant to the Australian health policy context.

Burden of disease estimates for the Aboriginal and Torres Strait Islander population are currently available for 2011 and 2003 from the ABDS 2011 study. Detailed estimates for 2018 for Indigenous and non-Indigenous Australians are planned for release in early 2022. Note that results cannot be compared across studies due to changes in methodology and data sources.

Further information on the ABDS can be found at the AIHW website: https://www.aihw.gov.au/about-our-data/our-data-collections/australian-burden-of-disease.

AIHW Australian Cancer Database (ACD)

The ACD contains data about all new cases of cancer diagnosed in Australia since 1982, excluding basal and squamous cell carcinomas of the skin. Cancer is a notifiable disease in all Australian states and territories. Relevant legislation requires certain individuals and organisations to notify all new cases of cancer to the jurisdiction's central cancer registry. These registries supply data annually to the AIHW, which cleans and standardises it and notifies the registries of inter-state duplicates.

Further information on the ACD can be found at the AIHW website: https://www.aihw.gov.au/about-our-data/our-data-collections/australian-cancer-database.

AIHW National Hospital Morbidity Database (NHMD)

The NHMD a compilation of episode-level records from admitted patient morbidity data collection systems in Australian public and private hospitals. The scope of the NHMD is episodes of care for admitted patients in all public and private acute and psychiatric hospitals, free-standing day hospital facilities and alcohol and drug treatment centres in Australia. Hospitals operated by the Australian Defence Force, correctional authorities and in Australia’s offshore territories may also be included. The hospital separations data do not include episodes of non-admitted patient care provided in outpatient clinics or emergency departments. Patients in these settings may be admitted subsequently, with the care provided to them as admitted patients being included in the NHMD.

Further information on the NHMD can be found at the AIHW website: https://www.aihw.gov.au/about-our-data/our-data-collections/national-hospitals.

AIHW National Mortality Database (NMD)

The AIHW NMD contains cause of death information provided by the registries of births, deaths and marriages and the National Coronial Information System, and coded by the ABS, for deaths since 1964. Registration of deaths is the responsibility of each state and territory’s Registry of Births, Deaths and Marriages. These data are then collated and coded by the ABS and are maintained at the AIHW in the NMD.

The AIHW use these data in various reporting activities to monitor the health of Australians and to inform policy and planning. Summaries of causes of death, including trends and deaths among different population groups, can be derived from this long-term dataset.

Further information on the NMD can be found at the AIHW website: https://www.aihw.gov.au/about-our-data/our-data-collections/national-mortality-database.

AIHW National Perinatal Data Collection (NPDC)

The NPDC is a national population-based cross-sectional collection of data on pregnancy and childbirth. The data are based on births reported to the perinatal data collection in each state and territory in Australia. Midwives and other birth attendants, using information obtained from mothers and from hospital or other records, complete notification forms for each birth. A standard de-identified extract is provided to the AIHW on an annual basis to form the NPDC.

Further information on the NPDC can be found at the AIHW website: https://www.aihw.gov.au/about-our-data/our-data-collections/national-perinatal-data-collection.

Radiotherapy Waiting Times National Minimum Data Set (RWT NMDS)

The RWT NMDS is a collation of records related to courses of radiotherapy that began in a reference period. The data collected includes administrative details, patient demographic characteristics and some clinical information. The database was primarily designed to enable reporting of waiting times for radiotherapy services which are calculated as the time between the patient's ready-for-care date and the date of the first megavoltage external beam radiotherapy treatment.

Further information on the RWT NMDS can be found at the AIHW website: https://www.aihw.gov.au/about-our-data/our-data-collections/national-radiotherapy-waiting-times-2015-16.

Other data sources

Australian Child and Adolescent Survey of Mental Health and Wellbeing 2013–14

The Australian Child and Adolescent Survey of Mental Health and Wellbeing provides information on the prevalence of mental disorders in children and adolescents in Australia. The first national survey of the mental health of children and adolescents was conducted between 1998 and 2000. The second survey, conducted between 2013 and 2014, involved interviews with more than 6,000 Australian families, and examined the emotional and behavioural development of children and adolescents aged between 4 and 17 years.

Further information can be found at the Australian Government Department of Health website: https://www.health.gov.au/resources/publications/the-mental-health-of-children-and-adolescents.

Australian Immunisation Register (AIR)

The Australian Immunisation Register (AIR) is a national register that records all vaccines given to all people in Australia. The AIR includes vaccines given under the National Immunisation Program; through school programs; and privately, such as for flu or travel. In June 2018, states and territories entered new HPV immunisation episodes directly to the AIR and all historical episodes have been transferred from the HPV Register.

Further information can be found at the Australian Government Department of Human Services website:
https://www.humanservices.gov.au/individuals/services/medicare/australian-immunisation-register/what-register

Australian Secondary Students’ Alcohol and Drug Survey (ASSAD) 2017

The ASSAD is a triennial national survey of students’ use of licit and illicit substances. The ASSAD study was designed to provide estimates of the current prevalence of use of tobacco, alcohol and other substances among Australian school students aged 12–17 years, and to examine trends in their use of these substances. The sample for ASSAD is based on secondary schools throughout Australia so teenagers who are not at school are not included in the survey. The survey has been conducted in 1984, 1987, 1990 and 1993 (alcohol and tobacco only), and 1996, 1999, 2002, 2005, 2008, 2011, 2014 and 2017 (including over the counter and illicit substances).

Further information can be found at the Australian Government Department of Health website: https://beta.health.gov.au/resources/publications/secondary-school-students-use-of-tobacco-alcohol-and-other-drugs-in-2017

Australia & New Zealand Dialysis and Transport Registry (ANZDATA)

The Australia and New Zealand Dialysis and Transplant Registry (ANZDATA) collects data on the incidence, prevalence and outcome of dialysis and transplant treatment for patients with end-stage renal failure. ANZDATA is funded by the Australian Organ and Tissue Donation and Transplantation Authority, New Zealand Ministry of Health and Kidney Health Australia. Operations of the Registry are based at the South Australian Health and Medical Research Institute (SAHMRI).

Further information on the ANZDATA Registry can be found at the ANZDATA website: https://www.anzdata.org.au/anzdata/

National HPV Vaccination Program

The National HPV Vaccination Program Register (HPV Register) supported the National HPV Vaccination Program from 2008 to 2018 by collecting information about HPV vaccine doses given across Australia. The National HPV Vaccination Program Register closed on 31 December 2018 and all records have been transferred to the Australian Immunisation Register (AIR).

Further information on the National HPV Vaccination Program can be found at the HPV Register website: https://www.hpvvaccine.org.au/the-hpv-vaccine/hpv-register.aspx

National Bowel Cancer Screening Program (NBCSP)

The NBCSP aims to reduce illness and death from bowel cancer through early detection or prevention of the disease and is managed by the Department of Health in partnership with state and territory governments, the Department of Human Services (2006 to November 2019), and the National Cancer Screening Register (NCSR, November 2019 to present).

Further information on the NBCSP can be found at the Department of Health website: http://www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/bowel-screening-1

National Cancer Screening Register data (NCSR)

The National Cancer Screening Register (NCSR) is the source of National Cervical Screening Program (NCSP) data in Australia, following the migration and consolidation of state and territory cervical screening register data. This change may impact comparisons with previous NCSP reporting, particularly for people who screen in a different state or territory to which they reside.

The NCSR is intended to be a near-complete record of all cervical tests, including HPV, cytology, colposcopy and histology. Pathology labs and colposcopists are required under the NCSR Rules 2017 to notify all cervical test data to the NCSR within 14 days. Any tests data not notified to the NCSR will not be included in the NCSR or in the data included in this report. Cervical tests for COMPASS participants are not included in the NCSR because, as a clinical trial, notification of COMPASS data is an exemption under the NCSR Rules 2017. This means that any cervical tests conducted as part of the COMPASS trial are not included in the NCSR, or in the data in this report. This affects Victoria more than other jurisdictions.

The Data Quality Statement for National Cancer Screening Program data can be found on the AIHW website at https://meteor.aihw.gov.au/content/index.phtml/itemId/729622.

Department of Health National Health Workforce Data Set (NHWDS)

The NHWDS is a combination of registration and survey data collected through the registration renewal process for registered health practitioners.

Further information on the NHWDS can be found at:
https://www1.health.gov.au/internet/main/publishing.nsf/Content/Health%20Workforce-2

State and Territory admitted health care & mental health care data 2015–16

The provision of mental health care services is the responsibility of the health authorities in each of the states and territories.

The state/territory health authorities receive mental health care data from public sector community health services. Data are supplied by state/territory health departments to the AIHW on an annual basis, in the form of a bespoke data request.

See link for further information:

https://meteor.aihw.gov.au/content/index.phtml/itemId/402135

State and territory BreastScreen register data

Data were provided from the BreastScreen register in each state and territory, according to definitions and data specifications in the BreastScreen Australia data dictionary version 1.2. These data are compiled into national figures by the AIHW to allow national monitoring of BreastScreen Australia.

The Data Quality Statement for BreastScreen Australia data can be found on the AIHW website at https://meteor.aihw.gov.au/content/index.phtml/itemId/710033.

State and territory cervical screening register data

Data were provided from the cervical screening register that existed in each state and territory, according to definitions and data specifications in the National cervical cancer prevention data dictionary version 1: working paper. These data were compiled into national figures by the AIHW to allow national monitoring of the National Cervical Screening Program.

The Data Quality Statement for cervical screening data can be found on the AIHW website at http://meteor.aihw.gov.au/content/index.phtml/itemId/699940.

Acknowledgements

The *National Strategic Framework for Chronic Conditions (NSFCC): reporting framework* was prepared by members of the Health Group at the Australian Institute of Health and Welfare (AIHW) including Sue Barker, Louise Catanzariti, Michael De Looper, Katherine Faulks and Frances Gibson.

Special thanks to Richard Juckes and Lynelle Moon for reviewing the report.

In addition to the individual acknowledgements below, many other staff from the AIHW contributed time and expertise. We gratefully acknowledge the work of the publishing, design, website, media, communications, executive, as well as the support and advice from data custodians and subject matter experts.

A full list of contributors to the report is provided in the table below. Input from all of these individuals was much appreciated.

Vicki Bennett
Karen Bishop
Kerrin Bleicher
Katrina Burgess
Alison Budd
David Bulbeck
Geoff Callaghan
Cathy Claydon
Peta Craig
Fleur De Crespigny
Rhonda De Vos
Tracy Dixon
Melanie Dunford
Anthea Duri
Martin Edvardsson
Deanna Eldridge
Michael Frost
Louise Gates
Cara Goodwin
Gary Hanson
Justin Harvey
Moira Hewitt
Tim Hourigan
Clara Jellie
Helen Johnstone
Sophie Lindquist
Conan Liu
Miriam Lum On
Karen Malam
David Meere
Sally Mills
Niall O'Driscoll
James Pearce
Tuan Phan
Indrani Pieris-Caldwell
Harene Ranjithakumaran
Tracie Reinten
Ingrid Seebus
Mark Short
Claire Sparke
Heather Swanston
Jason Thompson
Marissa Veld
Jenny Webb
Karen Webber
Amy Young

The *National Strategic Framework for Chronic Conditions: reporting framework* was developed under the auspices of the then Australian Health Ministers' Advisory Council (AHMAC) including a contribution of funds.

Thank you to members of the Jurisdictional Working Group (JWG) who provided comments.

We would like to thank members from a range of AIHW’s Expert Advisory Groups for their feedback during the development of the reporting framework (see *Appendix A*).

Additional funding and support for the project were provided by the Australian Government Department of Health, including valuable comments provided throughout the drafting process.

Abbreviations

AATSIHS	Australian Aboriginal and Torres Strait Islander Health Survey
ABDS	Australian Burden of Disease Study
ABS	Australian Bureau of Statistics
ACHI	Australian Classification of Health Interventions
ADHD	attention deficit hyperactivity disorder
AHMAC	Australian Health Ministers' Advisory Council
AHPF	Australian Health Performance Framework
AIHW	Australian Institute of Health and Welfare
ALLS	Adult Literacy and Life Skills Survey
ANZDATA	Australia and New Zealand Dialysis and Transplant Registry
ASSAD	Australian Secondary Students' Alcohol and Drug Survey
ATSI HPF	Aboriginal and Torres Strait Islander Health Performance Framework
BMI	body mass index
CHD	coronary heart disease
CHI	Children's Headline Indicators
CIDI	Composite International Diagnostic Interview
CKD	chronic kidney disease
COAG	Council of Australian Governments
COPD	Chronic obstructive pulmonary disease
CVD	Cardiovascular disease
DALY	Disability-adjusted life years
DHS	Department of Human Services
DVA	Department of Veterans Affairs
ECT	electroconvulsive therapy
ED	emergency department
ERP	estimated resident population

ESKD	end-stage kidney disease
FTE	Full-time equivalent
GP	General Practitioner
HLS	Health Literacy Survey
HPV	Human papillomavirus
HSPC	Health Services Principal Committee
ICD-10-AM	International Statistical Classification of Diseases and Related Health Problems, 10th revision
MPHS	Multipurpose Household Survey
MPS	Medicare Benefits Schedule
NATSIHSC	National Aboriginal and Torres Strait Islander Health Standing Committee
NATSIHS	National Aboriginal and Torres Strait Islander Health Survey
NATSISS	National Aboriginal and Torres Strait Islander Social Survey
NBCSP	National Bowel Cancer Screening Program
NHA	National Healthcare Agreement
NHMRC	National Health and Medical Research Council
NHPF	National Health Performance Framework
NHRA PAF	National Health Reform Agreement Performance and Accountability Framework
NHS	National Health Survey
NHWDS	National Health Workforce Data Set
NIRA	National Indigenous Reform Agreement
NMDS	National Minimum Data Set
NSFCC	National Strategic Framework for Chronic Conditions
NYIF	National Youth Information Framework
OECD	Organisation for Economic Cooperation and Development
RoGS	Review of Government Service Provision

SEW	Survey of Education and Work
SIH	Survey of Income and Housing
WHO	World Health Organization
YLD	Years lived with disability
YLL	Years of life lost

References

AIHW (Australian Institute of Health and Welfare) 2011. Key indicators of progress for chronic disease and associate determinants: data report. Cat. no. PHE 142. Canberra: AIHW.

AIHW 2016. Australian Burden of Disease Study: Impact and causes of illness and death in Australia 2011. Australian Burden of Disease Study series no. 3. BOD 4. Canberra: AIHW.

AIHW 2017. Cancer in Australia. Cat. no. CAN 123. Canberra: AIHW.

AIHW 2018a. Australia's health 2018. Australia's health series no. 16. AUS 221. Canberra: AIHW.

AIHW 2018b. Smoking web pages. Canberra: AIHW. Viewed 8 March 2019, https://www.aihw.gov.au/reports-data/behaviours-risk-factors/smoking/overview.

AIHW 2019. METeOR, AIHW's Metadata Online Registry. Online: http://meteor.aihw.gov.au/content/index.phtml/itemId/181162.

AHMAC (Australian Health Ministers' Advisory Council) 2017. National Strategic Framework for Chronic Conditions. Canberra: Australian Government.

Banderali G, Martelli A, Landi M, Moretti F, Betti F, Radaelli G, Lassandro C & Verduci E 2015. Short and long term health effects of parental tobacco smoking during pregnancy and lactation: a descriptive review. Journal of Translational Medicine 13:327.

COAG (Council of Australian Governments Health Council) 2012. National Health Reform Performance and Accountability Framework. Online: https://www.aihw.gov.au/getmedia/ea9b2361-38de-43f3-9426-8705fcc8f1da/performance-and-accountability-framework.pdf.aspx .

COAG Health Council 2015. Healthy mouths, healthy lives: Australia's National Oral Health Plan 2015–2024. Adelaide: SA Dental Service.

Cole TJ, Bellizzi MC, Flegal KM and Dietz WH 2007. Establishing a standard definition for child overweight and obesity worldwide: international survey, BMJ 2000; 320.

Department of Health 2015. Better outcomes for people with chronic and complex health conditions. Canberra: Department of Health, http://www.health.gov.au/internet/main/publishing.nsf/Content/76B2BDC12AE54540CA257F72001102B9/$File/Primary-Health-Care-Advisory-Group_Final-Report.pdf.

Department of Health 2017a. Australia's Physical Activity and Sedentary Behaviour Guidelines. Canberra: Department of Health, http://www.health.gov.au/internet/main/publishing.nsf/Content/health-pubhlth-strateg-phys-act-guidelines.

Department of Health 2017b. The Fifth National Mental Health and Suicide Prevention Plan. Canberra: Department of Health.

Flenady V, Wojiezek AM & Middleton P 2018. Stillbirths: recall to action in high-income countries. Lancet 387(10019):691–702.

Guthridge S, Li L, Silburn S, Li SQ, McKenzie J & Lynch J 2015. Impact of perinatal health and socio-demographic factors on school education outcomes: A population study of Indigenous and non-Indigenous children in the Northern Territory. Journal of Paediatrics and Child Health 51(8):778–86.

Lawrence D, Johnson S, Hafekost J, Boterhoven De Haan K, Sawyer M, Ainley J, Zubrick SR 2015. The Mental Health of Children and Adolescents. Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing. Canberra: Department of Health.

Lumley J, Chamberlain C, Dowsell T, Oliver S, Oakley L & Watson L 2009. Interventions for promoting smoking cessation during pregnancy. Cochrane Database of Systematic Reviews (3): CDD001055.

NHMRC (National Health and Medical Research Council) 2009. Australian Guidelines to reduce health risks from drinking alcohol. Canberra: National Health and Medical Research Council.

NHMRC 2013. Australian Dietary Guidelines. Canberra: National Health and Medical Research Council.

NHMRC 2020. Australian Guidelines to reduce health risks from drinking alcohol. Canberra: National Health and Medical Research Council.

NMHC (National Mental Health Commission) 2018. Monitoring mental health and suicide prevention reform: Fifth National Mental Health and Suicide Prevention Plan, 2018. Sydney: National Mental Health Commission.

Miyazaki Y, Hayashi K & Imazeki S 2015. Smoking cessation in pregnancy: psychosocial interventions and patient focused perspectives. International Journal of Women's Health, 7:415–427.

RACGP (The Royal Australian College of General Practitioners) 2020. Management of type 2 diabetes: A handbook for general practice. East Melbourne: RACGP. Viewed 4 August 2020, https://www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/diabetes/introduction.

Širvinskienė G, Žemaitienė N, Jusienė R, Šmigelskas K, Veryga A & Markūnienė E 2016. Smoking during pregnancy in association with maternal emotional well-being. Medicina 52(2):132–138.

WHO (World Health Organization) 2010. Health Workforce. Geneva: WHO. Viewed 8 April 2019, https://www.who.int/health-topics/health-workforce#tab=tab_1.

WHO 2013. Global action plan for the prevention and control of noncommunicable diseases 2013–2020. Geneva: WHO.

WHO 2014. Noncommunicable diseases global monitoring framework: Indicator definitions and specifications. Geneva: WHO.

WHO 2018. Noncommunicable diseases country profiles 2018. Geneva: World Health Organization; 2018. Licence: CC BY-NC-SA 3.0 IGO. Viewed 11 Feb 2019, https://apps.who.int/iris/handle/10665/274512.

WHO 2021. Hypertension (web report). Viewed 12 October 2021, https://www.who.int/news-room/fact-sheets/detail/hypertension.

The *National Strategic Framework for Chronic Conditions: reporting framework* was developed to provide an appropriate set of indicators to monitor progress towards meeting the 3 Objectives of the *National Strategic Framework for Chronic Conditions* in a consistent and comparable manner. A framework of standardised indicators provides the signposts that are needed by partners to measure key aspects of chronic condition prevention and control. Such frameworks are recognised as important elements of health-care improvement.

aihw.gov.au

AIHW

Stronger evidence,
better decisions,
improved health and welfare