The Australian Health Performance Framework

The National Health Information and Performance Principal Committee

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Purpose

The Australian Health Performance Framework (AHPF) will provide a single, enduring and flexible vehicle to support system-wide reporting on Australia's health and health care performance, to support the assessment and evaluation of value and sustainability, and to inform the identification of priorities for improvement and development.

The AHPF is flexible by design, to meet the needs of multiple audiences, populations and levels of the health system, through tiering and disaggregation of indicators and data. It will provide a foundation upon which to build more detailed performance or evaluation frameworks for sector, condition or population-specific strategies. In all applications it will support achievement of the National Healthcare Agreement objective: *to improve health outcomes for all Australians and ensure the sustainability of the Australian health system.*

The AHPF should have primacy over other sector-specific performance frameworks. Over time, existing sector-specific health performance frameworks should be linked to this Framework.

Concept and Structure

The Australian Health Performance Framework (AHPF) builds upon Australian and international experience of performance and outcomes schema in recent years. It provides for both the effective categorisation of health system components, their inter-relationships and scope, and for the dynamic measurement of performance across the system.

The AHPF comprises a Health System Conceptual Framework (Figure 1), and a Health System Performance Logic Model (Figure 2).

The Health System Conceptual Framework (Figure 1) illustrates the concept of the "health system" in relation to the broader context of human health. It highlights the different factors that affect the health of the Australian population (whether internal or external to the health system), and emphasises the interrelationships between factors within the health system.

The relationships by which the components of the health system mapped in the Conceptual Framework combine to deliver outcomes (and hence "performance") are then represented in a logic model for the Australian health system, using the approach to designing a logic model in Australia's *Report on Government Services.* This Health System Performance Logic Model (Figure 2) outlines the different elements of the health system and the expected linkages between them. This logical representation depicts how health system inputs are expected to result in activities and outputs, which will lead to desired health system outcomes. This logic model allows assessment of the performance of the health system; evaluation of the contribution of health system inputs, activities and outputs to achieving desired outcomes; and evaluation of policy or program changes impacting these building blocks.

Components of each domain of the Conceptual Framework will progressively be populated with indicators (building from the significant set of indicators already available). The same indicators which will populate the Conceptual Framework can be presented dynamically using the Logic Model for different evaluative purposes – so that the AHPF will contain a set of indicators, which can be combined and used in different ways

for different purposes. The AHPF combines both the ability to generate a rigorous representation of the enduring relationships that will always underpin health system performance, and the capability to undertake more dynamic assessment of changing policies and priorities. The AHPF explicitly views the Australian health system as encompassing both public and private funding and delivery of health care services.

AHPF Health System Conceptual Framework

The Conceptual Framework (Figure 1) identifies the information domains that are relevant to assessment of the health system as a whole, and to understanding the relevant contextual factors that impact on the health system. The Conceptual Framework identifies aspects for which the health system would be considered to be wholly responsible (such as aspects of health care delivery that occur within the health system), and other aspects that are affected by factors outside the health system (such as diet and nutrition, or environmental risk factors). The key domains of the conceptual framework are summarised below.

Determinants of health and wellbeing

This domain takes into account factors that influence the health status and health care needs of Australians. Factors within this domain may be external to the traditional view of the health system. Reporting of health determinants in relation to the performance of the health system will highlight the need for services within the health system and also the need for multi-sectoral approaches, where appropriate, to improve health outcomes. These determinants include health behaviours, personal biomedical factors, environmental factors and socioeconomic factors.

Health system

This domain captures the activities and qualities of the health care system. It can be applied across all sectors, settings and organisational levels, as needed. The dimensions identified within this domain highlight the need for health care delivery to be safe, accessible, and of high quality. Measures within this domain can be viewed from both patient and provider perspectives and capture both activity levels (where relevant), outputs and the outcomes of care. These activities and qualities include issues of effectiveness, safety, appropriateness, continuity of care, accessibility, efficiency and sustainability.

Health status

The health status domain reflects the status of individuals, cohorts and populations in terms of conditions, functioning and well-being. It includes impairments, disabilities and handicaps that are a consequence of disease. Health can be measured and described, for example, by the incidence and prevalence of conditions across the community, providing an overall picture of the health of the community, and representing the outcomes of all the factors that shape our health.

Health system context

This domain reflects the importance of broad contextual issues of demographics, community and social capital, governance and structure, financing, workforce and infrastructure. It also

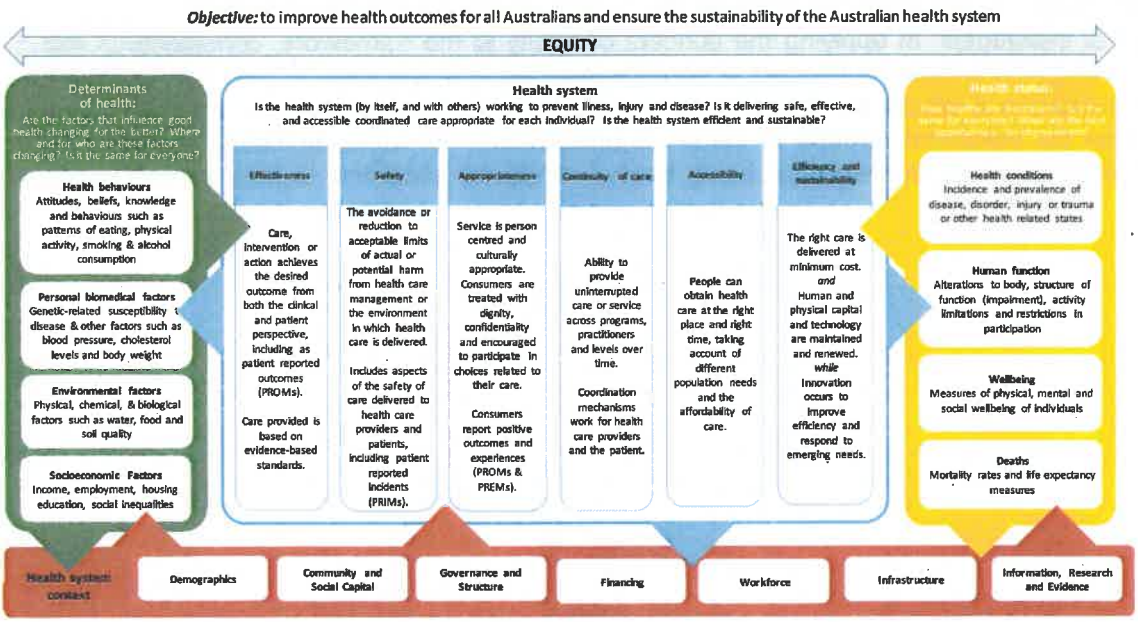
includes issues of information, research and evidence to influence decisions and actions at all levels and across all sectors. These issues provide essential context for current decisions at all levels and are key issues for the planning of a sustainable health system.

Equity

As the objective of the health system is to improve health outcomes for all Australians, equity is a domain that influences all elements of the framework: determinants of health, health status, the health system and its context. Accordingly, the framework explicitly recognises the need for monitoring equity across the determinants of health, the health system and health status for different population groups and sub-groups. This will be achieved through appropriate disaggregation of performance measure data, which could include Aboriginal and Torres Strait Islander people, people living in different geographic areas, different socioeconomic groupings and other population groups relevant to the measure.

Within the AHPF, equity is regarded as the minimisation of avoidable differences between groups or individuals. In applying the concept of equity to the framework, consideration will need to be given to how the concept of equity should apply to the specific indicator. While for some indicators it would be desirable to see equity across population groups (i.e. equal treatment for individuals/groups in same circumstances), for other indicators it would be desirable to see individuals/groups being treated differently according to their level of need.

Figure 1: Australian Health System Conceptual Framework



AHPF Health System Performance Logic Model

The Health System Performance Logic Model (Figure 2) builds on the well-established program logic model to follow the service process employed in the *Report on Government Services* (ROGS). The ROGS service process model depicts the relationship between technical efficiency, cost-effectiveness and program effectiveness (Figure 3). This logic model has been applied in the Australian Health Performance Framework to describe the relationships between the following elements as depicted in Figure 2.

Health system context

Health system context captures the external factors and forces which influence health system inputs, activities, outputs and outcomes. These are generally beyond the direct control of the health system and its stewards or managers. This logic model includes the determinants of health and demographics/socioeconomic factors from the Conceptual Framework.

Health system inputs

In a logic model approach, health system inputs are the resources, investments and enablers needed to deliver health system activities. These are generally under the control of health system stewards and managers. The health system inputs in the logic model are based on the World Health Organisation Health Systems Framework building blocks.

Health system activities and outputs

In a logic model approach, health system activities are the actions undertaken within the health system, while outputs are the specific services, products or deliverables achieved by these activities. Health system activities and outputs may include policy and governance activities; health care management activities; health protection and promotion activities; service delivery and clinical care and health system improvement activities. This logic model allows health system activities and outputs to be measured against a number of different quality dimensions including safety, accessibility, appropriateness, continuity, effectiveness and efficiency.

Health system outcomes

Health system outcomes represent the impact on the individual or group as a result of the health system activities and outputs. The health system outcomes captured in this logic model include the "health status" section of the Conceptual Framework (i.e. more traditional measures of patient and population health outcomes), as well as system outcomes such as health workforce knowledge, skills and well-being and health system sustainability. As with all logic models, outcomes can be categorised as immediate, intermediate and final.

Figure 2: AHPF Health System Performance Logic Model

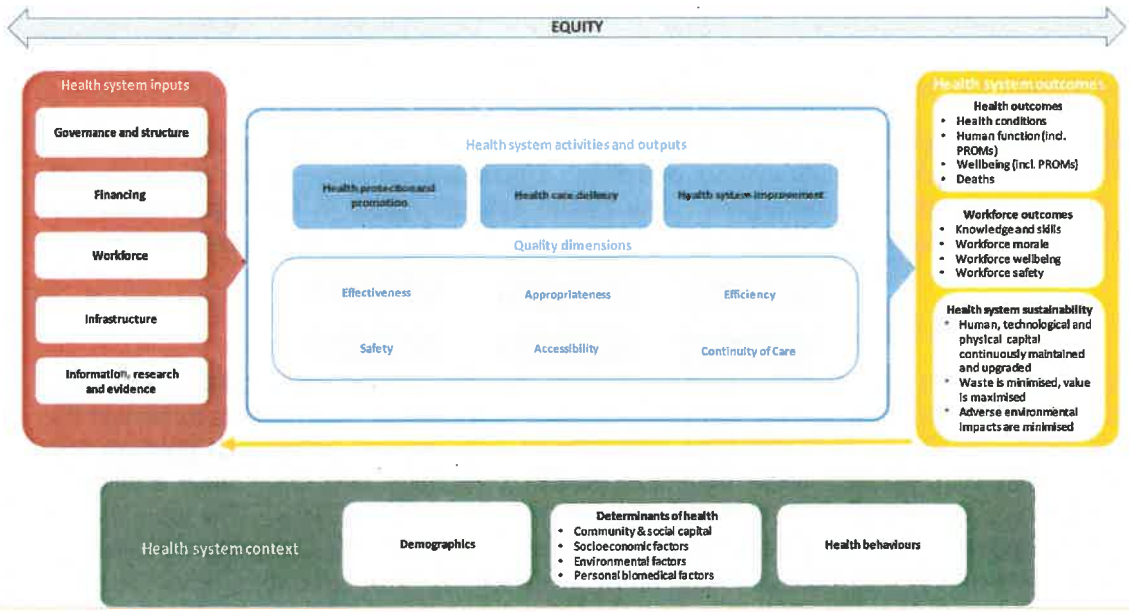
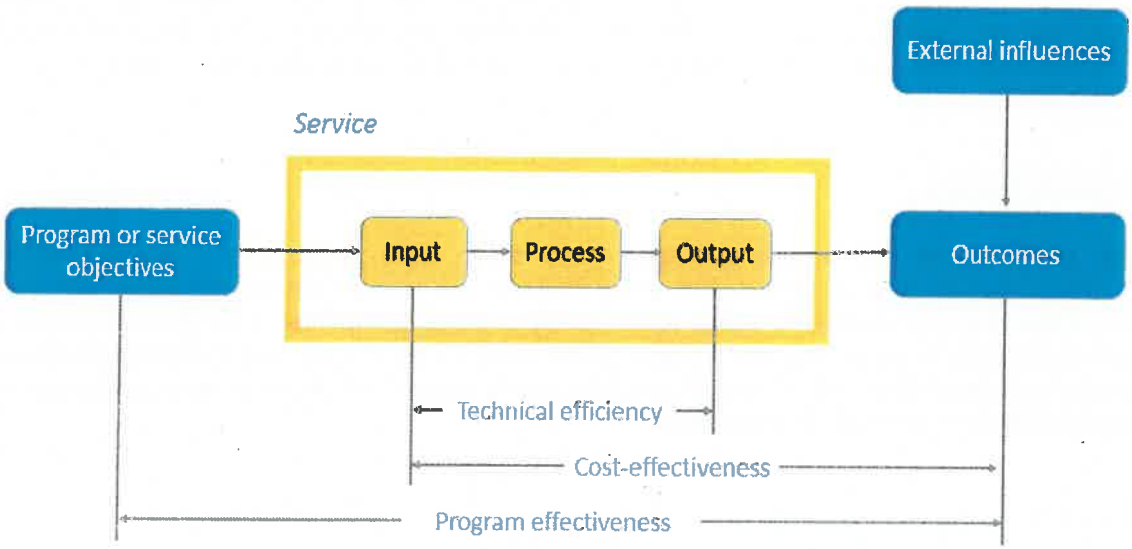


Figure 3: The ROGS service process model



Using the AHPF

Potential uses of the AHPF include the following:

- "Traditional" measurement and assessment of health system performance at national, state and territory and smaller area levels – is the system making progress against indicators of success, or is performance stable or deteriorating?
- Understanding the context within which the health system must operate – are changing contextual factors (and measured changes in contextual indicators) helping or hindering the achievement of health goals?
- Evaluation of policies and programs, through the structure of the logic model – can a given policy change be demonstrated to have been associated with an improvement in logically connected health outcomes?
- Guiding, prioritizing and supporting system-level improvement activities.
- Facilitating and contextualizing international comparisons – providing a framework into which internationally comparable measures can be related to the Australian health system, and a framework for comparing contextual factors across systems.
- Providing a stronger platform for the assessment of value in health care and the sustainability of the Australian health system, through their enhanced prominence within both the Conceptual Framework and the Logic Model.
- Providing a flexible vehicle and "container" through which to expand significantly the use of Patient Reported Outcome Measures (PROMs) and Patient Reported Experience Measures (PREMS) throughout the system, and thereby allowing for more systemic assessment of value in health care.

Ownership

The Australian Health Performance Framework is owned by the Australian Health Ministers' Advisory Committee (AHMAC) and is intended to inform future work, as a more contemporary approach and learning from previous frameworks - the National Health Performance Framework (NHPF) and the Performance and Accountability Framework(PAF), in particular.

Stewardship

The AHPF should be formally reviewed every six to eight years, with a comprehensive review of indicators to be undertaken every three to four years. The development or review of specific indicators may take place continuously or on an *ad hoc* basis to reflect changes in data availability or policy priorities. Major policy events may dictate that AHMAC consider a review outside of this cycle. In the absence of such a trigger, the periodic review provides an opportunity for a strategic assessment.

Scope

The AHPF covers health care services (public and private), including health promotion and protection services that may be delivered at the population level. Continuity of care is explicitly acknowledged in the framework as being an important aspect of effective system performance, and includes managing the boundaries between health and other sectors, such as the human services, disability or aged care sectors.

Reporting under the AHPF

The prioritisation and development of specific indicators, reports and work programs should be guided by the strategic priorities of AHMAC. Reporting activities under the AHPF should build on strong existing infrastructure and platforms such as the *MyHospitals* and *MyHealthyCommunities* websites, while providing readier access to underlying data for different audiences. Reporting should be tailored to the needs of specific stakeholders and audiences as appropriate and should better inform choices consumers need to make when they are interacting with the health system. Reporting under the AHPF should be designed explicitly to help inform policy making and improvement at all levels of the health system, as well as to promote transparency and accountability.

A crucial principle for reporting under the AHPF will be the ability to provide tiered reporting (i.e. to ensure that data can be disaggregated or aggregated readily and easily to the greatest extent possible), allowing the presentation of multiple perspectives, such as:

- individual providers, local (PHN, LHN), State/Territory, national and international;
- targeted population groups including Aboriginal and Torres Strait Islander;
- funding sources (including out-of-pocket costs);
- different health conditions;
- demographic and socio-economic groups; and
- public and private health care providers and funders.

AHPF Indicators - Principles for inclusion and development

The AHPF provides a coherent and logical "container" for the wide range of measures and indicators required to assess and evaluate Australia's complex health system. One of the purposes of the AHPF Conceptual Framework is to provide a categorisation system of domains within which indicators and indicator sets can be organised and displayed – while the AHPF Logic Model allows the same indicators to be combined and evaluated to demonstrate different aspects of health system performance.

The AHPF recognises that indicator and dataset development is time-intensive and expensive. Advances in data availability and data analytics offer great opportunities to deliver new indicators which can greatly enhance the value of the AHPF over time – but investment in indicator development must be carefully prioritised to maximise this value. A key lesson from earlier performance frameworks is that premature specification of aspirational indicators can undermine the credibility of the overall framework, if these indicators prove harder to develop than had been hoped for. The AHPF will therefore make the very best possible use of the substantial investment in indicators that has already occurred across the Australian health system, while requiring careful governance to target resources towards the best return on investment for new indicator development.

Existing indicators within the two former frameworks (NHPF and PAF) will initially be transitioned as a single national set of indicators into the AHPF. A proposed mapping of existing indicators under the NHPF and PAF against the Australian Health Performance Conceptual Framework is provided at Appendix 1. The indicators will then be reviewed and a revised set of indicators agreed, including agreement to the development of prioritized, new indicators related to domains within the framework that are not currently populated, where possible.

The concepts in the AHPF have been designed to support data collection, reporting and analysis, and to allow utilisation of a broad range of datasets for a variety of purposes at local, state and territory, or national levels. Further population of the framework with new indicators will ensure that they are designed with a specific purpose in mind and, where appropriate, identify the appropriate geography, population groups and system level for reporting. To allow rigorous assessment of existing or new indicators, the criteria in Table 1 have been drawn from that agreed by COAG in 2011 as part of the Intergovernmental Agreement on Federal Financial Relations and should be used to review the quality of a particular indicator (or set thereof). Performance measures (indicators and benchmarks) will not always meet all criteria. Where 'measure' is used in Table 1, it applies equally to indicators and benchmarks.

Table 1: Features of Good Performance Measures

Issue	Description
Meaningful and Understandable	Does the measure accurately describe performance towards and the achievement of agreed objectives or outcomes? Does the measure provide a good indication of success? Does the measure aid public understanding of government achievement?
Timely	Has a timeframe been specified for the achievement of the outcomes? Can the data be collected at a frequency that aligns with the required reporting frequency? Is there a significant delay in collecting and collating data?
Comparable	Does the measure allow for comparisons: • over time? • between jurisdictions? • between target groups? • across similar programs or initiatives?
Administratively simple and cost effective	Have the costs of data collection been considered? Does the benefit created by performance reporting outweigh the administrative burden and costs of data collection? Have other measures been considered that may be more cost effective?
Accurate	Will data be of sufficient accuracy so that the community has confidence in the information on which to draw conclusions?
Hierarchical	Can the measure provide information on performance at a lower level, for example in target groups or areas?
Avoidance of perverse incentives	Has the measure been tested for unintended consequences? As far as possible, does the measure avoid encouraging perverse incentives?
Measurable	Is the outcome or output quantifiable?
Documentation	Is the measure stated in an unambiguous manner? Is it clear what is being measured? Do data definitions explain: • what the measure is intended to show and why it is important • the data source • collection arrangements • measurement frequency • statistical techniques for calculating performance, including any baseline or historical data • data limitations, including those outside the control of government. Where a survey is used, have the following been documented: • the method used for selecting the sample? • the sample size? • response rates? • the margin of uncertainty in the reported level of performance?
Attributable	Is the outcome (or intermediate outcome) measured by the indicator attributable to the associated output group? Is the indicator measuring the performance logic at a place that reduces the level of external influences?
Use of existing data sets	Have all known existing data sets been considered for use to measure the impact of the associated output group (including administrative data sets)? Have the relevant data collection agencies and data working groups been consulted on the use of existing data sets?

Source: Intergovernmental Agreement on Federal Financial Relations (2011) - Schedule C Public Accountability and Performance Reporting (Attachment C.1).

Appendix 1: Mapping of existing National Health Performance Framework (NHPF) and Performance and Accountability Framework (PAF) indicators to the AHPF

The table below lists the indicators that are currently included in the National Health Performance Framework and the Performance and Accountability Framework (including those not currently reported, as indicated). The mapping has been undertaken against the Conceptual Framework, reflecting that these indicators were broadly intended to be used in the assessment of the health system as a whole and/or specific services available at a local level, but were not designed to evaluate specific programs or interventions.

The table also indicates the sector to which the indicators (as currently constructed) are considered to apply. Some indicators may also be considered relevant to the assessment of secondary (or specialist) care or prevention activities that might be conducted outside of the hospital or primary care sectors (and even outside of the health system all together), but these are not depicted here as the existing indicators sets are more clearly constructed around the hospital and primary care sectors (particularly in relation to the PAF).

Framework domains/dimension		**Sector**	
Determinants of health and wellbeing		**Hospital care**	**Primary care**
Health behaviours	NHPF		
	Health literacy		
	Proportion of adults who are daily smokers		✓
	Proportion of adults at risk of long-term harm from alcohol		✓
	Fruit and vegetable intake		✓
	Physical inactivity		✓
	Unsafe sharing of needles		
	Children exposed to tobacco smoke in the home		✓
	PAF (Primary Health Network)		
	Prevalence of smoking		✓
Personal biomedical factors	NHPF		
	Proportion of people obese and overweight		✓
	PAF (Primary Health Network)		
	Prevalence of overweight and obese status		✓
Environmental factors	NHPF		
	Water quality		

Socioeconomic factors	NHPF		
	Proportion of people with low income		
	Educational attainment for selected school years and adults		
Health system		**Hospital care**	**Primary care**
Effectiveness	NHPF		
	Immunisation rates for vaccines in the national schedule		✓
	Proportion of pregnancies with an antenatal visit in the first trimester		✓
	Cancer screening rates		✓
	Selected potentially preventable hospitalisations		✓
	Survival of people diagnosed with cancer	✓	✓
	Potentially avoidable deaths	✓	✓
	Survival following acute coronary heart disease event**	✓	
	PAF (Primary Health Network)		
	Vaccination rates for children		✓
	Screening rates for breast, cervical and bowel cancer		✓
	Number of women with at least one antenatal visit in the first trimester		✓
	Selected potentially avoidable hospitalisations		✓
	Age standardised mortality of potentially avoidable deaths	✓	✓
	Proportion of children with three year old developmental health check**		✓
	Five year survival proportions of selected cancers**	✓	✓
Safety	NHPF		
	Adverse events treated in hospital	✓	
	Falls resulting in patient harm in hospitals	✓	
	PAF (Hospitals)	✓	
	Healthcare associated *Staphylococcus aureus* (including MRSA) bacteraemia	✓	
	Hospital Standardised Mortality Ratio**	✓	
	Healthcare-associated Clostridium difficile infections**	✓	
	In hospital mortality rates for: • Acute myocardial infarction • Heart failure	✓	

	• Stroke • Fractured neck of femur • Pneumonia**		
	Death in low-mortality Diagnostic Related Groups**	✓	
	Unplanned hospital readmission rates for patients discharged following management of: • Acute Myocardial Infarction • Heart failure • Knee and hip replacements • Depression • Schizophrenia • Paediatric tonsillectomy and adenoidectomy**	✓	
Appropriateness	PAF (Primary Health Network)		
	Measures of patient experience		✓
	PAF (Hospitals)		
	Measures of the patient experience with hospital services**	✓	
Continuity of care	NHPF		
	Proportion of people with asthma with a written asthma action plan		✓
	Proportion of people with mental illness with a GP care plan		✓
	Proportion of people with diabetes with a GP annual cycle of care**		✓
	PAF (Primary Health Network)		
	Percentage of diabetic patients who have a GP annual cycle of care**		✓
	Percentage of asthma patients with a written asthma plan**		✓
	PAF (Hospitals)		
	Rate of community follow up within the first seven days of discharge from a psychiatric admission**	✓	
Accessibility	NHPF		
	Bulk-billing for non-referred (GP) attendances		✓
	Differential access to hospital procedures	✓	
	Waiting time for elective surgery	✓	
	Waiting time for emergency department care	✓	
	Selected potentially avoidable GP-type presentations to emergency departments**		✓

	PAF (Primary Health Network)		
	Waiting times for GP services		✓
	GP service utilisation by residents of Residential Aged Care Facilities		✓
	After hours GP service utilisation		✓
	Access to services by type of service compared to need*	✓	✓
	GP type service use*		✓
	Allied health type service use*		✓
	Specialist service utilisation*		
	Primary care-type Emergency Department attendances*		✓
	Percentage of the population receiving primary mental health care*		✓
	Waiting times for community health services**		✓
	Rates of contact with primary mental healthcare by children and young people**		✓
	PAF (Hospitals)		
	Elective surgery patient waiting times by urgency category	✓	
	Cancer care pathway – waiting times for cancer care	✓	
	Emergency Department waiting times by urgency category	✓	
	Percentage of Emergency Department patients transferred to a ward or discharged within four hours, by triage category	✓	
	Access to services by type of service compared to need**	✓	✓
Efficiency and sustainability	NHPF		
	Cost per casemix-adjusted separation for acute and non-acute care episodes	✓	
	Net growth in health workforce	✓	✓
	PAF (Primary Health Network)		
	Financial performance against budget**		✓
	PAF (Hospitals)		
	Relative Stay Index for multi-day stay patients*	✓	
	Cost per weighted separation and total case weighted separations	✓	
	Financial performance against activity funded budget (annual operating result) **	✓	

	Day of surgery admission rates for non-emergency multi-day stay patients**	✓	
Health status		**Hospital care**	**Primary care**
Health conditions	NHPF		
	Incidence of heart attacks		
	Incidence of selected cancers		
	Incidence of sexually-transmissible infections and blood-borne viruses		
	Incidence of end-stage kidney disease		
	Hospitalisation for injury and poisoning		
	Proportion of babies born with low birthweight		
	PAF (Primary Health Network)		
	Incidence of selected cancers		
	Proportion of babies born with low birth weight		
	Incidence of ischemic heart disease**		
	Prevalence of diabetes**		
	Incidence of end stage kidney disease**		
Human function	NHPF		
	Severe or profound core activity limitation		
Wellbeing	NHPF		
	Psychological distress		
	Self-assessed health status		
Deaths	NHPF		
	Infant/young child mortality rate		
	Life expectancy		
	PAF (Primary Health Network)		
	Estimated life expectancies at birth		
	Infant/young child mortality rate		
Health system context		**Hospital care**	**Primary care**
Demographics	—		
Community and social capital	—		

Governance	—		
Financing	—		
Workforce	—		
Infrastructure	—		
Information, research and evidence	—		

Notes to table:

1. '*' indicates *'partially' reported indicators*. These are indicators for which full indicator data could not be reported, but where some relevant data (for example, covering just some sectors or some aspects relevant to the indicator) has been made available.
2. '**' indicates *not reported*. This may be because suitable data were not readily available, or where an appropriate indicator measure could not be agreed, or is no longer considered relevant.