3 Recommended indicators: a summary

This section provides summary information on the recommended indicator set, including a list of the indicators, key messages from stakeholders, and an assessment of the indicators against the criteria detailed in Section 2 (including the indicator framework, indicator measurability, and international comparisons available).

Detailed information on each of the recommended indicators is available in Appendix 1, including rationale, indicator specification, and example reporting where data has previously been published or was otherwise readily available to the AIHW.

Detailed information on the alignment of each of the indicators to the indicator framework is available in Appendix 3.

3.1 List of recommended indicators

Table 3.1 Health care safety and quality indicators

	Primary care and community health services
1	Enhanced primary care services in general practice
2	General practices with a register and recall system for patients with chronic disease
3	People with moderate to severe asthma who have a written asthma action plan
4	Management of hypertension in general practice
5	Management of arthritis and musculoskeletal conditions
6	Mental health care plans in general practice
7	Annual cycle of care for people with diabetes mellitus
8	Cervical cancer screening rates
9	Immunisation rates for vaccines in the national schedule
10	Eye testing for target groups
11	Quality of community pharmacy services
12	Developmental health checks in children
13	People receiving a medication review
	Hospitals
14	Assessment for risk of venous thromboembolism in hospitals
15	Pain assessment in the emergency department
16	Reperfusion for acute myocardial infarction in hospitals
17	Stroke patients treated in a stroke unit
18	Complications of transfusion
19	Health care associated infections acquired in hospital
20	*Staphylococcus aureus* (including MRSA) bacteraemia in hospitals
21	Adverse drug events in hospitals
22	Intentional self-harm in hospitals
23	Malnutrition in hospitals and residential aged care facilities
24	Pressure ulcers in hospitals and residential aged care facilities
25	Falls resulting in patient harm in hospitals and residential aged care facilities
26	Complications of anaesthesia
27	Accidental puncture/laceration in hospitals
28	Obstetric trauma - third and fourth degree tears
29	Birth trauma – injury to neonate
30	Postoperative haemorrhage
31	Postoperative venous thromboembolism
32	Unplanned return to operating theatre

33	Unplanned re-admission to an intensive care unit
34	Hospital standardised mortality ratio (HSMR)
35	Death in low mortality DRGs
36	Independent peer review of surgical deaths
37	Discharge medication management for acute myocardial infarction
38	Timely transmission of discharge summaries
	Specialised health services
39	Mental health admitted patients having seclusion
40	Post-discharge community care for mental health patients
41	Quality of palliative care
42	Functional gain achieved in rehabilitation
43	Multi-disciplinary care plans in sub-acute care
(5)	Management of arthritis and musculoskeletal conditions
	Residential aged care
44	Oral health in residential aged care
(13)	People receiving a medication review
(23)	Malnutrition in hospitals and residential aged care facilities
(24)	Pressure ulcers in hospitals and residential aged care facilities
(25)	Falls resulting in patient harm in hospitals and residential aged care facilities
	Multiple service categories
45	Unplanned hospital re-admissions
46	Inappropriate co-prescribing of medicines
47	Selected potentially preventable hospitalisations
48	End stage kidney disease in people with diabetes
49	Lower-extremity amputation in people with diabetes
50	Cancer Survival
51	Failure to diagnose
52	Potentially avoidable deaths
	All service categories
53	Patient experience
54	Presence of appropriate incident monitoring arrangements
55	Accreditation of health care services

3.2 Alignment with the indicator framework

An analysis of the alignment of the indicators with the framework is summarised in Tables 3.2 to 3.7. The indicators have been grouped under the headings for service categories and assessed against the other elements of the framework.

Appropriateness and safety are the most frequent dimensions of safety and quality associated with the proposed indicators, consistent with the elements of quality that were chosen for special emphasis in this project (see Section 2.3).

All National Health Priority Areas are covered by the indicators, although there is an emphasis on cardiovascular health.

The mapping of the indicators to the burden of disease and injury groups and to the health expenditure groupings was not a straight-forward process. The approach taken was to map an indicator to such a group only if this was the primary focus of the indicator. If the indicator encompassed several groups it was not mapped; for example, 'failure to diagnose' has not been mapped to a specific disease/group as it might relate to any area. Therefore, the distribution presented in Tables 3.3 to 3.6 probably understates the coverage of the major burden of disease and injury and expenditure groups.

The distribution of indicators across the 'health care needs' domains is uneven, with the 'Getting better' and 'Living with chronic conditions' categories accounting for the majority of indicators. Such an imbalance is not surprising given the focus on clinical care. However, it remains a matter of judgment whether the current distribution across the categories is ideal.

The five indicators that appear in more than one service category have only been counted once in these assessments, in the first category in which they are listed (see Table 3.1). This means that residential aged care is under-represented in these tables.

Through this analysis, a number of areas appear to be under-represented and this is discussed in section 4.2.

Table 3.2: Distribution of indicators by dimensions of quality

	Dimension of Quality [a]				
Health Service Category	**Safety**	**Appropriateness**	**Effectiveness**	**Continuity of Care**	**Responsiveness**
Primary care and community health services	1	13	2	9	2
Hospitals	18	17	10	2	1
Specialised health services	1	5	1	3	1
Residential aged care	0	1	1	1	0
Multiple or all service categories	5	4	9	4	3
Total	**25**	**42**	**23**	**19**	**7**

(a) An indicator can be associated with more than one dimension of quality. Indicators that appear in more than one service category have only been counted once, in the first category in which they are listed.

Table 3.3: Distribution [a] of indicators by National Health Priority Areas

	National Health Priority Area [a]						
Health Service Category	**Arthritis and musculoskeletal conditions**	**Asthma**	**Cancer Control**	**Cardiovascular health**	**Diabetes mellitus**	**Injury prevention and control**	**Mental health**
Primary care and community health services	1	1	1	1	1	0	0
Hospitals	0	0	0	5	0	1	0
Specialised health services	0	0	0	0	0	0	2
Residential aged care	0	0	0	0	0	1	0
Multiple or all service categories	0	1	1	1	2	1	0
Total	**1**	**2**	**2**	**7**	**3**	**3**	**2**

(a) Not all indicators are associated with a National Health Priority Area. An indicator can be associated with more than one National Health Priority Area. Indicators that appear in more than one service category have only been counted once, in the first category in which they are listed.

Table 3.4: Distribution [a] of indicators by major burden of disease groups

	Major Burden of Disease Groups[a]						
Health Service Category	**Mental disorders[b] (13.3%)**	**Neurological and sense disorders (11.9%)**	**Chronic respiratory disease (7.1%)**	**Diabetes (5.5%)**	**Cardiovascular disease (18.0%)**	**Musculoskeletal diseases (4.0%)**	**Cancer (19.0%)**
Primary care and community health services	1	1	1	1	1	1	1
Hospitals	0	0	0	0	5	0	0
Specialised health services	2	0	0	0	0	0	0
Residential aged care	0	0	0	0	0	0	0
Multiple service categories	0	0	0	2	0	0	1
Total	**3**	**1**	**1**	**3**	**6**	**1**	**2**

(a) Not all indicators are associated with a burden of disease. An indicator can be associated with more than one burden of disease. Indicators that appear in more than one service category have only been counted once, in the first category in which they are listed.

(b) Percentages shown are the proportion of total 'disability-adjusted life year' attributable to the disease group (see Table 2.17 of AIHW 2008). Other disease groups not listed in the table cumulatively contributed 14.3% to total burden of disease.

Table 3.5: Distribution [a] of indicators by major areas of health expenditure updated

	Major Areas of Health Expenditure[a]				
Health Service Category	**Hospitals[b] (39.0%)**	**Medical services (19.1%)**	**Dental services (6.6%)**	**Community health and other (5.0%)**	**Other health practitioners (3.8%)**
Primary care and community health services	0	12	0	4	1
Hospitals	25	0	0	0	0
Specialised health services	2	4	0	4	2
Residential aged care	0	0	0	0	0
Multiple or all service categories	10	10	4	7	4
Total	**37**	**26**	**4**	**15**	7

(a) An indicator can be associated with more than one major area of expenditure. Indicators that appear in more than one service category have only been counted once, in the first category in which they are listed.

(b) Percentages shown are the proportions of total health expenditure for 2006-07 (see Figure 4.1 of AIHW 2008). Other areas of health expenditure not listed in the table cumulatively contributed 26.5% to total expenditure.

Table 3.6: Distribution [a] of indicators by major disease and injury group contributing to major areas of health expenditure

	Major Disease and Injury Group contributing to Major Areas of Health Expenditure[a]									
Health Service Category	**Cardiovascular [b] (11.2%)**	**Oral health (10.1%)**	**Mental disorders (7.8%)**	**Musculoskeletal (7.5%)**	**Neoplasms (7.2%)**	**Injuries (6.5%)**	**Respiratory (6.3%)**	**Digestive system (5.9%)**	**Nervous system (5.2%)**	**Genito-urinary (4.5%)**
Primary care and community health services	1	0	1	1	1	0	1	0	1	0
Hospitals	5	0	0	0	0	2	0	0	0	0
Specialised health services	0	0	2	0	0	0	0	0	0	0
Residential aged care	0	1	0	0	0	0	0	0	0	0
Multiple service categories	0	0	0	0	1	0	0	0	0	0
Total	**6**	**1**	**3**	**1**	**2**	**2**	**1**	**0**	**1**	**0**

(a) Not all indicators are associated with a broad disease group. An indicator can be associated with more than one broad disease group. Indicators that appear in more than one service category have only been counted once, in the first category in which they are listed.

(b) Percentages shown are the proportions of total health expenditure for 2004-05 (see Table 8.9 of AIHW 2008). Other disease and injury groups not listed in the table cumulatively contributed 28.8% to total health expenditure.

Table 3.7: Distribution of indicators by health needs domain

	Dimension of Quality [a]			
Health Service Category	**Staying healthy**	**Getting Better**	**Living with chronic conditions**	**Coping with end of life**
Primary care and community health services	4	0	8	0
Hospitals	0	20	0	0
Specialised health services	0	2	2	1
Residential aged care	1	0	0	0
Multiple or all service categories	1	3	4	0
Total	6	25	14	1

(a) Indicators that appear in more than one service category have only been counted once, in the first category in which they are listed.

3.3 Measurability, data sources and international comparisons

A majority of the indicators are able to be reported immediately, though in more than half of these cases current reporting is not completely in line with the recommended specifications. The overall picture is summarised in Table 3.8 below. Following this is a summary of the relevant data sources and the frequency with which reporting can be done using these sources (Table 3.9), and a discussion and summary table (Table 3.10) of the international comparisons available for these indicators.

Table 3.8: Distribution of indicators by measurability category

Currently reportable – as per recommended specification	Currently reportable – data development required to meet recommended specification	Not currently reportable – indicator and/or data development required	Concept proposed for further development
Enhanced primary care services in general practice	General practices with a register and recall system for patients with chronic disease	Assessment for risk of venous thromboembolism in hospitals	Management of chronic pain in arthritis in musculoskeletal conditions
Mental health care plans in general practice	People with moderate to severe asthma who have a written asthma plan	Pain assessment in the emergency department	Timely transmission of discharge summaries
Annual cycle of care for people with diabetes mellitus	Management of hypertension in general practice	Independent peer review of surgical deaths	Quality of palliative care
Selected potentially preventable hospitalisations	Reperfusion for acute myocardial infarction in hospitals	Discharge medication management for acute myocardial infarction	Inappropriate co-prescribing of medicines
End stage kidney disease in people with diabetes	Stroke patients treated in a stroke unit	Oral health in residential aged care	Patient experience
Lower-extremity amputation in people with diabetes	Health care associated infections acquired in hospital	Complications of transfusion	Failure to diagnose
Complications of anaesthesia	*Staphylococcus aureus* (including MRSA) bacteraemia in hospitals	Presence of appropriate incident monitoring arrangements	Quality of community pharmacy services
Accidental puncture/laceration in hospitals	Adverse drug events in hospitals		Multi-disciplinary care plans in sub-acute care
Obstetric trauma – third and fourth degree tears	Intentional self harm in hospitals		
Birth trauma – injury to neonate	Unplanned return to operating theatre		
Postoperative haemorrhage	Unplanned re-admission to an Intensive Care Unit		
Postoperative venous thromboembolism	Death in low mortality DRGs		
Hospital standardised mortality ratio (HSMR)	Mental health inpatients having seclusion		
Post-discharge community care for mental health patients	People receiving a medication review		
Cancer survival	Pressure ulcers in hospitals and residential aged care facilities		
Potentially avoidable deaths	Falls resulting in patient harm in hospitals and residential aged care facilities		
Accreditation of health care services	Malnutrition in hospitals and residential aged care facilities		
Cervical cancer screening rates	Unplanned hospital re-admissions		
Immunisation rates for vaccines in the national schedule	Functional gain achieved in rehabilitation		
	Development health checks in children		
	Eye testing for target groups		

Table 3.9: Data sources and indicator measurability category

Data source	Data availability	Measurability category[(a)]			
		A	B	C	D
NHMD	Annual	8	10		
Emergency department NMDS	Annual		1		
National Perinatal Data Collection	Annual	1			
Mental health care national minimum datasets (admitted, residential and/or community)	Annual	1	1		
AIHW National Mortality Database	Annual	1			
Australasian Association of Cancer Registries	Annual	1			
Medicare Australia (MBS)	Continuous	3	3		
Medicare Australia (PBS)	Continuous		1		
Australia and New Zealand Dialysis and Transplant Registry (ANZDATA)	Annual	1			
National stroke audit	Every 2 years		1		
Accreditation organisations	Annual	1			
National Cervical Screening Program	Annual	1			
Immunisation Registers (adult and child)	Annual		1		
None identified (or not confirmed)			4	7	9

(a) A – Currently reportable – as per recommended specification

B - Currently reportable – data development required to meet recommended specification

C - Not currently reportable – indicator and/or data development required

D - Concept proposed for further research and development

International comparisons were identified for over half of the indicators (29 of 55), and further comparisons may have been found if the search had been extended to sources in languages other than English. This includes a mix of indicators which are already in use and some which are proposed indicators. Proposed indicators include those in the Pan-Canadian Primary Health Care Indicators set, which do not have a confirmed commencement date as yet, and those in the OECD Patient Safety Indicators set which are being collected and reported for the first time in 2009.

The strong representation of the UK and USA as sources for international comparisons (Table 3.8) reflects the large amount of work dedicated to patient safety and quality in those two countries. Europe, Canada and New Zealand provide more international comparisons than Table 3.8 implies because they participate in the OECD and so their data are often included under the OECD category.

Table 3.10: Distribution [(a)] of indicators by availability of international comparisons

	International source of indicator [(a)]					
Health Service Category	**OECD**	**New Zealand**	**European Union**	**United Kingdom**	**United States of America**	**Canada**
Primary care and community health services	2	0	1	4	4	2
Hospitals	9	2	0	6	11	1
Specialised health services	1	0	0	0	0	0
Residential aged care	0	0	0	0	0	0
Multiple or all service categories	3	1	1	2	3	3
Total	**15**	**3**	**2**	**12**	**18**	**6**

(a) Not all indicators have international comparisons available. Some indicators have more than one available international comparison.