National Healthcare Agreement: Pl 18-Selected potentially preventable hospitalisations, 2015
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# National Healthcare Agreement: Pl 18-Selected potentially preventable hospitalisations, 2015

# Identifying and definitional attributes

Metadata item type: Indicator

**Indicator type:** Progress measure

**Short name:** PI 18-Selected potentially preventable hospitalisations, 2015

METEOR identifier: 559032

**Registration status:** <u>Health!</u>, Superseded 08/07/2016

**Description:** Admission to hospital for a condition where the hospitalisation could have

potentially been prevented 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 allied health professionals).

For example, hospitalisations for conditions such as measles and tetanus can be prevented by primary health care through vaccination to prevent the conditions from occurring. Hospitalisations for patients presenting with acute pharyngitis can be prevented through timely treatment in primary health care settings using antibiotics, and hospitalisations for diabetes complications can be prevented through

appropriate, long-term management of diabetes by primary and community health

practitioners.

The above definition excludes conditions that are preventable predominately through population health interventions, such as those for clean air and water.

Indicator set: National Healthcare Agreement (2015)

Health!, Superseded 08/07/2016

Outcome area: Primary and Community Health

Health!, Standard 07/07/2010

**Data quality statement:** National Healthcare Agreement: PI 18-Selected potentially preventable

hospitalisations, 2015 QS

Health!, Superseded 08/07/2016

# Collection and usage attributes

**Computation description:** Note that the codes below are ICD-10-AM 7th edition.

Table 1: ICD-10-AM, 7th edition codes used for identifying potentially preventable hospitalisations

Category	ICD- 10-AM codes	ICD-10-AM description	Additional requirements
Vaccine preventable conditions			
Pneumonia and influenza (vaccine-preventable)	J10	Influenza due to other identified influenza virus	In any diagnosis.  Exclude people under 2 months.
	J11	Influenza, virus not identified	In any diagnosis.  Exclude people under 2 months.
	J13	Pneumonia due to Streptococcus pneumoniae	In any diagnosis.  Exclude people under 2 months.

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	J14	Pneumonia due to	In any diagnosis.
		Haemophilus influenza	Exclude people under 2 months.
Other vaccine- preventable conditions	A08.0	Rotaviral enteritis	In any diagnosis.
	A35	Other tetanus	In any diagnosis.
	A36	Diphtheria	In any diagnosis.
	A37	Whooping cough	In any diagnosis.
	A80	Acute poliomyelitis	In any diagnosis.
	B01	Varicella [chicken pox]	In any diagnosis.
	B05	Measles	In any diagnosis.
	B06	Rubella [German measles]	In any diagnosis.
	B16.1	Acute hepatitis B with delta- agent (coinfection) without hepatic coma	In any diagnosis.
	B16.9	Acute hepatitis B without delta- agent and without hepatic coma	In any diagnosis.
	B18.0	Chronic viral hepatitis B with delta-agent	In any diagnosis.
	B18.1	Chronic viral hepatitis B without delta- agent	In any diagnosis.
	B26	Mumps	In any diagnosis.
	G00.0	Haemophilus meningitis	In any diagnosis.
Chronic			
Asthma	J45	Asthma	As principal diagnosis.
			Exclude children aged less than 4 years.
	J46	Status	As principal diagnosis.
		asthmaticus	Exclude children aged less than 4 years.

Congestive cardiac	150	Heart failure	As principal diagnosis.
failure			Exclude cases with the following cardiac procedure codes:
			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].
	l11.0	hypertensive heart diseased	As principal diagnosis.
		with (congestive)	Exclude cases with the following cardiac procedure codes:
		heart failure	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.
		Gedema	Exclude cases with the following cardiac procedure codes:
			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	E10.0- E10.9	Type 1 diabetes mellitus	As principal diagnosis.
	E11.0- E11.9	Type 2 diabetes mellitus	As principal diagnosis.
	E13.0- E13.9	Other specified diabetes mellitus	As principal diagnosis.
	E14.0- E14.9	Unspecified diabetes mellitus	As principal diagnosis.
COPD	J20	Acute bronchitis	As principal diagnosis.
		2.0.101110	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	As principal diagnosis.
		bronchitis	Only with additional diagnosis of J47.
Angina	120	Angina pectoris	As principal diagnosis.
		podons	Exclude cases according to the list of procedures excluded from the Congestive cardiac failure category above.
	124.0	Coronary	As principal diagnosis.
		thrombosis not resulting in myocardial infarction	Exclude cases according to the list of procedures excluded from the Congestive cardiac failure category above.
	124.8	Other forms of acute	As principal diagnosis.
		ischaemic heart disease	Exclude cases according to the list of procedures excluded from the Congestive cardiac failure category above.
	124.9	Acute	As principal diagnosis.
		ischaemic heart disease, unspecified	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	l10	Essential	As principal diagnosis.
		(primary) hypertension	Exclude cases with procedure codes according to the list of procedures excluded from the Congestive cardiac failure category above.
	l11.9	Hypertensive	As principal diagnosis.
		heart disease without (congestive) heart failure	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	100	Rheumatic fever without mention of heart involvement	As principal diagnosis.
	l01	Rheumatic fever with heart involvement	As principal diagnosis.
	102	Rheumatic chorea	As principal diagnosis.
	105	Rheumatic mitral valve diseases	As principal diagnosis.
	106	Rheumatic aortic valve diseases	As principal diagnosis.
	107	Rheumatic tricuspid valve diseases	As principal diagnosis.
	108	Multiple valve diseases	As principal diagnosis.
	109	Other rheumatic heart diseases	As principal diagnosis.
<u>Acute</u>			
Pneumonia (not	J15.3	Pneumonia	In any diagnosis.
vaccine- preventable)		due to streptococcus, group B	Exclude people under 2 months.
	J15.4	Pneumonia	In any diagnosis.
		due to other streptococci	Exclude people under 2 months.
	J15.7	Pneumonia	In any diagnosis.
		due to Mycophasma pneumoniae	Exclude people under 2 months.
	J16.0	Chlamydial	In any diagnosis.
		pneumonia	Exclude people under 2 months.
Urinary tract infections, including pyelonephritis	N10	Acute tublo- interstitial nephnitis	As principal diagnosis.
	N11	Chronic tublo- interstitial nephritis	As principal diagnosis.

	N12	Tubolo-	As principal diagnosis.
		interstitial nephritis, not specified as acute or chronic	
	N13.6	Pyonephrosis	As principal diagnosis.
	N15.1	Renal and perinephric abscess	As principal diagnosis.
	N15.9	Renal tubule- interstitial disease, unspecified	As principal diagnosis.
	N28.9	Disorders of kidney and ureter, unspecified	As principal diagnosis.
	N39.0	Urinary tract infection, site not specified	As principal diagnosis.
	N39.9	Disorder or urinary system, unspecified	As principal diagnosis.
Perforated/bleeding ulcer	K25.0	Gastric ulcer, acute with haemorrhage	As principal diagnosis.
	K25.1	Gastric ulcer, acute with perforation	As principal diagnosis.
	K25.2	Gastric ulcer, acute with both haemorrhage and perforation	As principal diagnosis.
	K25.4	Gastric ulcer, chronic or unspecified with haemorrhage	As principal diagnosis.
	K25.5	Gastric ulcer, chronic or unspecified with perforation	As principal diagnosis.
	K25.6	Gastric ulcer, chronic or unspecified with both haemorrhage and perforation	As principal diagnosis.
	K26.0	Duodenal ulcer, acute with haemorrhage	As principal diagnosis.
	K26.1	Duodenal ulcer, acute with perforation	As principal diagnosis.
	K26.2	Duodenal ulcer, acute with both haemorrhage and perforation	As principal diagnosis.

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K26.4	Duodenal ulcer, chronic or unspecified with haemorrhage	As principal diagnosis.
K26.5	Duodenal ulcer, chronic or unspecified with perforation	As principal diagnosis.
K26.6	Duodenal ulcer, chronic or unspecified with both haemorrhage and perforation	As principal diagnosis.
K27.0	Peptic ulcer, site unspecified, acute with haemorrhage	As principal diagnosis.
K27.1	Peptic ulcer, site unspecified, acute with perforation	As principal diagnosis.
K27.2	Peptic ulcer, site unspecified, acute with both haemorrhage and perforation	As principal diagnosis.
K27.4	Peptic ulcer, site unspecified, chronic or unspecified with both haemorrhage and perforation	As principal diagnosis.
K27.5	Peptic ulcer, site unspecified, chronic or unspecified with both haemorrhage and perforation	As principal diagnosis.
K27.6	Peptic ulcer, site unspecified, chronic or unspecified with both haemorrhage and perforation	As principal diagnosis.
K28.0	Gastrojejunal ulcer, acute with haemorrhage	As principal diagnosis.
K28.1	Gastrojejunal ulcer, acute with perforation	As principal diagnosis.

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	K28.2	Gastrojejunal ulcer, acute with both haemorrhage and perforation	As principal diagnosis.
	K28.4	Gastrojejunal ulcer, chronic or unspecified with haemorrhage	As principal diagnosis.
	K28.5	Gastrojejunal ulcer, chronic or unspecified with perforation	As principal diagnosis.
	K28.6	Gastrojejunal ulcer, chronic or unspecified with both haemorrhage and perforation	As principal diagnosis.
Cellulitis	L02	Cutaneous abscess, furuncle and carbuncle	As principal diagnosis.  Exclude cases with any procedure except those in blocks 1820 to 2016, or if procedure is 30216-00, 30216-01, 30216-02, 30676-00, 30223-01, 30223-02, 30064-00, 90660-00, 90661-00, and this is the only listed procedure.
	L03	Cellulitis	As principal diagnosis.
			Exclude cases with any procedure except those in blocks 1820 to 2016, or if procedure is 30216-00, 30216-01, 30216-02, 30676-00, 30223-01, 30223-02, 30064-00, 90660-00, 90661-00, and this is the only listed procedure.
	L04	Acute Lymphadenitis	As principal diagnosis.  Exclude cases with any procedure except those in blocks 1820 to 2016, or if procedure is 30216-00, 30216-01, 30216-02, 30676-00, 30223-01, 30223-02, 30064-00, 90660-00, 90661-00, and this is the only listed procedure.
	L08	Other local infections of skin and subcutaneous tissue	As principal diagnosis.  Exclude cases with any procedure except those in blocks 1820 to 2016, or if procedure is 30216-00, 30216-01, 30216-02, 30676-00, 30223-01, 30223-02, 30064-00, 90660-00, 90661-00, and this is the only listed procedure.

	1 00	Dyodorma	As principal disappoin
	L88	Pyoderma gangrenosum	As principal diagnosis.
			Exclude cases with any procedure except those in blocks 1820 to 2016, or if procedure is 30216-00, 30216-01, 30216-02, 30676-00, 30223-01, 30223-02, 30064-00, 90660-00, 90661-00, and this is the only listed procedure.
	L98.0	Pyogenic	As principal diagnosis.
		granuloma	Exclude cases with any procedure except those in blocks 1820 to 2016, or if procedure is 30216-00, 30216-01, 30216-02, 30676-00, 30223-01, 30223-02, 30064-00, 90660-00, 90661-00, and this is the only listed procedure.
	L98.3	Eosinphilic	As principal diagnosis.
		cellulitis [Wells]	Exclude cases with any procedure except those in blocks 1820 to 2016, or if procedure is 30216-00, 30216-01, 30216-02, 30676-00, 30223-01, 30223-02, 30064-00, 90660-00, 90661-00, and this is the only listed procedure.
Pelvic inflammatory disease	N70	Salpingitis and oophoritis	As principal diagnosis.
	N73	Other female pelvic inflammatory diseases	As principal diagnosis.
	N74	Other female pelvic inflammatory disorders in diseases classified elsewhere	As principal diagnosis.
Ear, nose and throat infections	H66	Suppurative and unspecified otitis media	As principal diagnosis.
	J02	Acute pharyngitis	As principal diagnosis.
	J03	Acute tonsillitis	As principal diagnosis.
	J06	Acute upper respiratory infections of multiple and unspecified sites	As principal diagnosis.
	J31.2	Chronic pharyngitis	As principal diagnosis.
Dental conditions	K02	Dental caries	As principal diagnosis.

	K03	Other diseases	As principal diagnosis.
	1.55	of hard tissues of teeth	p.morpai diagnosio.
	K04	Diseases of pulp and periapical tissues	As principal diagnosis.
	K05	Gingivitis and periodontal diseases	As principal diagnosis.
	K06	Other disorders of gingiva and edentulous alveolar ridge	As principal diagnosis.
	K08	Other disorders of teeth and supporting structures	As principal diagnosis.
	K09.8	Other cysts of oral region, not elsewhere classified	As principal diagnosis.
	K09.9	Cyst of oral region, unspecified	As principal diagnosis.
	K12	Stomatitis and related lesions	As principal diagnosis.
	K13	Other diseases of lip and oral mucosa	As principal diagnosis.
	K14.0	Glossitis	As principal diagnosis.
Convulsions and epilepsy	G40	Epilepsy	As principal diagnosis.
	G41	Status epilepticus	As principal diagnosis.
	R56	Convulsions, not elsewhere classified	As principal diagnosis.
Eclampsia	O15	Eclampsia	As principal diagnosis.
Gangrene	R02	Gangrene, not elsewhere classified	In any diagnosis.
	170.24	Atherosclerosis of arteries of extremities with gangrene	As principal diagnosis.
	E09.52	Impaired glucose regulation with peripheral angiopathy, with gangrene	As principal diagnosis.

Rates directly age-standardised to the 2001 Australian population.

Analysis by state and territory, remoteness and SEIFA Index of Relative Socioeconomic Disadvantage (IRSD) is based on usual residence of person.

Presented as a number per 100,000 population.

**Computation:** 100,000 x (Numerator ÷ Denominator)

**Numerator:** Number of potentially preventable hospitalisations, divided into three groups and

total:

• vaccine-preventable conditions (e.g. tetanus, measles, mumps, rubella).

- acute conditions (e.g. ear, nose and throat infections, perforated/bleeding ulcer, pelvic inflammatory disease).
- chronic conditions (e.g. diabetes complications, asthma, angina, hypertension, congestive heart failure and chronic obstructive pulmonary disease).
- all potentially preventable hospitalisations.

#### Numerator data elements:

#### Data Element / Data Set

Episode of admitted patient care—admission date, DDMMYYYY

**Data Source** 

National Hospital Morbidity Database (NHMD)

NMDS / DSS

Admitted patient care NMDS 2012-13

Guide for use

Data source type: Administrative by-product data

## Data Element / Data Set-

Episode of admitted patient care—condition onset flag, code N

**Data Source** 

National Hospital Morbidity Database (NHMD)

NMDS / DSS

Admitted patient care NMDS 2012-13

Guide for use

Data source type: Administrative by-product data

#### Data Element / Data Set-

Episode of care—additional diagnosis, code (ICD-10-AM 7th edn) ANN{.N[N]}

**Data Source** 

National Hospital Morbidity Database (NHMD)

NMDS / DSS

Admitted patient care NMDS 2012-13

Guide for use

Data source type: Administrative by-product data

## Data Element / Data Set-

Episode of care—principal diagnosis, code (ICD-10-AM 7th edn) ANN{.N[N]}

Data Source

National Hospital Morbidity Database (NHMD)

NMDS / DSS

Admitted patient care NMDS 2012-13

Guide for use

Data source type: Administrative by-product data

Denominator:

Total population

# Denominator data elements:

#### Data Element / Data Set-

Person—estimated resident population of Australia

#### **Data Source**

ABS Estimated resident population (total population)

#### Guide for use

Data source type: Census-based plus administrative by-product data

#### Data Element / Data Set-

Person—estimated resident population of Australia

#### **Data Source**

ABS Indigenous experimental estimates and projections (2001 Censusbased)

#### Guide for use

Data source type: Census-based plus administrative by-product data

#### Disaggregation:

2007–08, 2008–09, 2009–10, 2010–11, 2011–12 (resupplied for revised specification) and 2012–13—Nationally (by three groups and total) by:

- Socio-Economic Indexes for Areas (SEIFA) Index of Relative Socioeconomic Disadvantage (IRSD) deciles (2006 SEIFA IRSD deciles for 2010-11 and previous years data, 2011 SEIFA IRSD deciles for 2011-12 and subsequent years data).
- Sex.

2012–13—Nationally (by three groups and total), by:

 Indigenous status by remoteness (Australian Statistical Geography Standard (ASGS) Remoteness Structure).

2007–08, 2008–09, 2009–10, 2010–11, 2011–12 (resupplied for revised specification) and 2012–13—State and territory (by three groups and total), by:

- remoteness (ASGC Remoteness Structure for 2011-12 and previous years data, ASGS Remoteness Structure for 2012-13 data).
- SEIFA IRSD quintiles (2006 SEIFA IRSD quintiles for 2010-11 and previous years data, 2011 SEIFA IRSD quintiles for 2011-12 and subsequent years data).

2007–08, 2008–09, 2009–10, 2010–11, 2011–12 (resupplied for revised specification and updated Indigenous ERP), 2012–13—State and territory (by three groups and total), by:

Indigenous status.

Some disaggregation may result in numbers too small for publication. National disaggregation by Indigenous status will be based on data only from jurisdictions for which the quality of Indigenous identification is considered acceptable.

# Disaggregation data elements:

#### Data Element / Data Set

Person—Indigenous status, code N

**Data Source** 

National Hospital Morbidity Database (NHMD)

NMDS / DSS

Admitted patient care NMDS 2012-13

Guide for use

Data source type: Administrative by-product data

#### Data Element / Data Set

Person—area of usual residence, statistical area level 2 (SA2) code (ASGS 2011) N(9)

**Data Source** 

National Hospital Morbidity Database (NHMD)

NMDS / DSS

Admitted patient care NMDS 2012-13

Guide for use

Data source type: Administrative by-product data

Used for disaggregation by state/territory, remoteness and SEIFA IRSD

Comments:

Most recent data available for 2015 National Healthcare Agreement (NHA) performance reporting: 2012–13.

The scope of the National Hospital Morbidity Database (NHMD) is episodes of care for admitted patients in essentially all hospitals in Australia, including public and private acute and psychiatric hospitals, free-standing day hospital facilities, alcohol and drug treatment hospitals and dental hospitals.

For 2010-11 and previous years data, the SEIFA IRSD quintiles and deciles used are 2006 SEIFA quintiles and deciles derived using the Australian Standard Geography Classification (ASGC) geographical unit of Statistical Local Area (SLA). For 2011-12 data, the SEIFA IRSD quintile and decile data are produced using the 2011 SEIFA IRSD quintiles and deciles derived using the ASGC geographical unit of SLA. For 2012-13 data, the SEIFA IRSD quintiles and deciles used are 2011 SEIFA IRSD quintiles and deciles derived using the Australian Statistical Geography Standard geographical unit of Statistical Area 2.

# Representational attributes

Representation class: Rate

Data type: Real

Unit of measure: Episode

Format: NN[NN].N

# Indicator conceptual framework

Framework and dimensions:

Accessibility

**Effectiveness** 

Safety

### **Data source attributes**

Data sources:

**Data Source** 

National Hospital Morbidity Database (NHMD)

Frequency

Annual

Data custodian

Australian Institute of Health and Welfare

**Data Source** 

ABS Estimated resident population (total population)

Frequency

Quarterly

Data quality statement

ABS Estimated resident population (total population), QS

Data custodian

Australian Bureau of Statistics

**Data Source** 

ABS Indigenous experimental estimates and projections (2001 Censusbased)

Frequency

Periodic

Data quality statement

ABS Indigenous experimental estimates and projections, QS

Data custodian

Australian Bureau of Statistics

# **Accountability attributes**

Organisation responsible for providing data:

Australian Institute of Health and Welfare

Benchmark:

National Healthcare Agreement: PB f-By 2014-15, improve the provision of primary care and reduce the proportion of potentially preventable hospital admissions by 7.6 per cent over the 2006-07 baseline to 8.5 per cent of total hospital admissions. 2015

collection required:

Further data development / Specification: Minor work required, the measure needs minor work to meet the intention of the indicator.

# Relational attributes

# Related metadata references:

Supersedes National Healthcare Agreement: PI 18-Selected potentially preventable hospitalisations, 2014

Health!, Superseded 14/01/2015

Has been superseded by <u>National Healthcare Agreement: PI 18–Selected potentially preventable hospitalisations, 2016</u>

Health!, Superseded 31/01/2017

See also National Healthcare Agreement: PB f-By 2014-15, improve the provision of primary care and reduce the proportion of potentially preventable hospital admissions by 7.6 per cent over the 2006-07 baseline to 8.5 per cent of total hospital admissions, 2015

Health!, Superseded 08/07/2016

See also National Healthcare Agreement: PI 16-Potentially avoidable deaths, 2015 Health!, Superseded 08/07/2016

See also <u>National Healthcare Agreement</u>: <u>PI 23-Unplanned hospital readmission</u> <u>rates, 2015</u>

Health!, Superseded 08/07/2016