## Australian Health Performance Framework: Pl 2.1.4— Selected potentially preventable hospitalisations,



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# Australian Health Performance Framework: Pl 2.1.4—Selected potentially preventable hospitalisations, 2019

#### Identifying and definitional attributes

Metadata item type: Indicator Indicator type: Indicator

**Short name:** AHPF PI 2.1.4–Selected potentially preventable hospitalisations, 2019

**Synonymous names:** Selected potentially preventable hospitalisations

METEOR identifier: 715161

Registration status: Health!, Standard 09/04/2020

**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: Australian Health Performance Framework, 2019

Health!, Standard 09/04/2020

#### Collection and usage attributes

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

Table 1: ICD-10-AM, 10th edition codes used for identifying potentially avoidable 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.

	J14	Pneumonia due	In any diagnosis.
		to Haemophilus influenzae	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.

Congostive same	IEO	Hoort failure	As principal diagnosis
Congestive cardiac failure	l50	Heart failure	As principal diagnosis.
			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 disease	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	As principal diagnosis.
		oedema	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.
		DIONCHIUS	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.
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	J44	Other chronic obstructive pulmonary disease	As principal diagnosis.
Bronchiectasis	J47	Bronchiectasis	As principal diagnosis.
	J20	Acute bronchitis	As principal diagnosis.
		biolicinus	Only with additional diagnosis of J47.
Angina	120	Angina pectoris	As principal diagnosis.
			Exclude cases according to the list of procedures excluded from the Congestive cardiac failure category above.
	124.0	Coronary thrombosis not	As principal diagnosis.
		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	110	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.
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.
Acute			
Pneumonia (not vaccine-preventable)	J15.3	Pneumonia due to streptococcus, group B	In any diagnosis.  Exclude people under 2 months.
	J15.4	Pneumonia due to other streptococci	In any diagnosis.  Exclude people under 2 months.
	J15.7	Pneumonia due	· ·
	J15.7	to Mycoplasma pneumoniae	In any diagnosis.  Exclude people under 2 months.
	J16.0	Chlamydial	In any diagnosis.
		pneumonia	Exclude people under 2 months.
Urinary tract infections, including pyelonephritis	N10	Acute tubulo- interstitial nephritis	As principal diagnosis.
	N11	Chronic tubulo- interstitial nephritis	As principal diagnosis.
	N12	Tubulo- interstitial nephritis, not specified as acute or chronic	As principal diagnosis.
	N13.6	Pyonephrosis	As principal diagnosis.

	N15.1	Renal and perinephric	As principal diagnosis.
	N15.9	Renal tubulo- interstitial disease, unspecified	As principal diagnosis.
	N28.9	Disorder of kidney and ureter, unspecified	As principal diagnosis.
	N39.0	Urinary tract infection, site not specified	As principal diagnosis.
	N39.9	Disorder of 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.
	K26.4	Duodenal ulcer, chronic or unspecified with haemorrhage	As principal diagnosis.

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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 haemorrhage	As principal diagnosis.
K27.5	Peptic ulcer, site unspecified, chronic or unspecified with 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.
K28.2	Gastrojejunal ulcer, acute with both haemorrhage and perforation	As principal diagnosis.

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	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[1604], 30216-01[1604], 30216-02[1604], 30676-00[1659], 30223-01[1606], 30223-02[1606], 30064-00[1605], 90660-00[1602], 90661-00[1608], 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[1604], 30216-01[1604], 30216-02[1604], 30676-00[1659], 30223-01[1606], 30064-00[1605], 90660-00[1602], 90661-00[1608], 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[1604], 30216-01[1604], 30216-02[1604], 30676-00[1659], 30223-01[1606], 30064-00[1605], 90660-00[1602], 90661-00[1608], and this is the only listed procedure.

	L08	Other local infections of	As principal diagnosis.
		skin and subcutaneous tissue	Exclude cases with any procedure except those in blocks [1820] to [2016], or if procedure is 30216-00[1604], 30216-01[1604], 30216-02[1604], 30676-00[1659], 30223-01[1606], 30064-00[1605], 90660-00[1602], 90661-00[1608], and this is the only listed procedure.
	L88	Pyoderma gangrenosum	As principal diagnosis.
		gangrenosum	Exclude cases with any procedure except those in blocks [1820] to [2016], or if procedure is 30216-00[1604], 30216-01[1604], 30216-02[1604], 30676-00[1659], 30223-01[1606], 30064-00[1605], 90660-00[1602], 90661-00[1608], and this is the only listed procedure.
	L98.0	Pyogenic granuloma	As principal diagnosis.  Exclude cases with any procedure except those in
			blocks [1820] to [2016], or if procedure is 30216-00[1604], 30216-01[1604], 30216-02[1604], 30676-00[1659], 30223-01[1606], 30223-02[1606], 30064-00[1605], 90660-00[1602], 90661-00[1608], and this is the only listed procedure.
	L98.3	Eosinophilic cellulitis [Wells]	As principal diagnosis.
		[,,,,,,,]	Exclude cases with any procedure except those in blocks [1820] to [2016], or if procedure is 30216-00[1604], 30216-01[1604], 30216-02[1604], 30676-00[1659], 30223-01[1606], 30223-02[1606], 30064-00[1605], 90660-00[1602], 90661-00[1608], 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	Female pelvic inflammatory disorders in diseases classified elsewhere	As principal diagnosis.

Ear, nose and	H66	Suppurative	As principal diagnosis.
throat infections	1100	and unspecified otitis media	As philicipal 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 of hard tissues of teeth	As principal diagnosis.
	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	Intermediate hyperglycaemia with peripheral angiopathy, with gangrene	As principal diagnosis.

Rates directly age-standardised to the 2001 Australian population.

Analysis by state and territory, remoteness and Socio-Economic Indexes for Areas (SEIFA) Index of Relative Socio-Economic Disadvantage (IRSD) is based on usual residence of the 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 2017-18

#### Data Element / Data Set-

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

**Data Source** 

National Hospital Morbidity Database (NHMD)

NMDS / DSS

Admitted patient care NMDS 2017-18

#### Data Element / Data Set-

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

**Data Source** 

National Hospital Morbidity Database (NHMD)

NMDS / DSS

Admitted patient care NMDS 2017-18

#### Data Element / Data Set-

Episode of admitted patient care—procedure, code (ACHI 10th edn) NNNNN-NN

**Data Source** 

National Hospital Morbidity Database (NHMD)

NMDS / DSS

Admitted patient care NMDS 2017-18

**Denominator:** 

Total population

## Denominator data elements:

#### Data Element / Data Set-

Person—projected Indigenous population of Australia, total people, N[N(9)]

#### **Data Source**

ABS Indigenous estimates and projections (2016 Census-based)

#### Data Element / Data Set

Person—estimated resident population of Australia, total people N[N(7)]

#### **Data Source**

ABS Estimated resident population (2016 Census-based)

#### Disaggregation:

2007–08, 2008–09, 2009–10, 2010–11, 2011–12, 2012–13, 2013–14, 2014–15, 2015–16, 2016–17, 2017–18—National.

Nationally, by three groups (not reported).

Nationally (by three groups and total) by (all not reported):

- SEIFA IRSD deciles.
- Indigenous status
- remoteness (Australian Statistical Geography Standard (ASGS) Remoteness Structure).

2007–08, 2008–09, 2009–10, 2010–11, 2011–12, 2012–13, 2013–14, 2014–15, 2015–16, 2016–17, 2017–18—State and territory.

State and territory, by three groups (not reported).

State and territory (by three groups and total), by (all not reported):

- remoteness (ASGS Remoteness Structure).
- Indigenous status.
- SEIFA IRSD quintiles.

Some disaggregation may result in numbers too small for publication.

## 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 2017-18

#### Data Element / Data Set-

Person—area of usual residence, statistical area level 2 (SA2) code (ASGS 2016) N(9)

Data Source

National Hospital Morbidity Database (NHMD)

NMDS / DSS

Admitted patient care NMDS 2017-18

Guide for use

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

Comments:

Most recent data available for Australian Health Performance Framework reporting: 2017–18.

The scope of the National Hospital Morbidity Database 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 2017-18 data, the SEIFA IRSD quintiles and deciles used are 2016 SEIFA IRSD quintiles and deciles derived using the Australian Statistical Geography Standard (ASGS) 2016 geographical unit of Statistical Area Level 2.

#### Representational attributes

Representation class:RateData type:RealUnit of measure:EpisodeFormat:NN[NN].N

#### Indicator conceptual framework

Framework and dimensions:

1. Effectiveness

**Data source attributes** 

Data sources:

**Data Source** 

ABS Indigenous estimates and projections (2016 Census-based)

Frequency

Periodic

Data custodian

Australian Bureau of Statistics

#### Data Source

National Hospital Morbidity Database (NHMD)

Frequency

Annual

Data custodian

Australian Institute of Health and Welfare

#### Data Source

ABS Estimated resident population (2016 Census-based)

Frequency

Quarterly

Data custodian

Australian Bureau of Statistics

### **Accountability attributes**

**Reporting requirements:** Australian Health Performance Framework

Organisation responsible

for providing data:

Australian Institute of Health and Welfare

#### Source and reference attributes

**Submitting organisation:** Australian Institute of Health and Welfare

#### Relational attributes

## Related metadata references:

Has been superseded by <u>Australian Health Performance Framework: PI2.1.4–Selected potentially preventable hospitalisations, 2020</u>

Health!, Standard 01/12/2020

See also <u>Australian Health Performance Framework: PI 2.1.6–Potentially avoidable deaths, 2019</u>

Health!, Standard 09/04/2020

See also Australian Health Performance Framework: PI 2.4.1—Unplanned hospital readmission rates, 2019

Health!, Standard 09/04/2020

See also National Healthcare Agreement: PI 16-Potentially avoidable deaths, 2020

Health!, Standard 13/03/2020

See also National Healthcare Agreement: PI 16—Potentially avoidable deaths, 2021

Health!, Standard 03/07/2020

See also National Healthcare Agreement: PI 18—Selected potentially preventable hospitalisations, 2020

Health!, Standard 13/03/2020

See also <u>National Healthcare Agreement: PI 18—Selected potentially preventable hospitalisations, 2021</u>

Health!, Standard 16/09/2020

See also National Healthcare Agreement: PI 23—Unplanned hospital readmission rates, 2020

Health!, Standard 13/03/2020

See also National Healthcare Agreement: PI 23—Unplanned hospital readmission rates, 2021

Health!, Standard 19/11/2020