National Healthcare Agreement: PI 18–Selected potentially preventable hospitalisations, 2021

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National Healthcare Agreement: PI 18–Selected potentially preventable hospitalisations, 2021

Identifying and definitional attributes

Metadata item type:	Indicator
Indicator type:	Progress measure
Short name:	PI 18–Selected potentially preventable hospitalisations, 2021
METEOR identifier:	725793
Registration status:	Health, Standard 16/09/2020
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:** | National Healthcare Agreement (2021)
Health, Standard 19/11/2020 |
| **Outcome area:** | Primary and Community Health
Health, Standard 07/07/2010 |

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 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. |

	J14	Pneumonia due to *Haemophilus influenzae*	In any diagnosis. 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 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: Blocks [572], [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 disease with (congestive) heart failure	As principal diagnosis. Exclude cases with the following cardiac procedure codes: Blocks [572], [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: Blocks [572], [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. 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.
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.
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 to *Mycoplasma pneumoniae*	In any diagnosis. Exclude people under 2 months.
	J16.0	Chlamydial pneumonia	In any diagnosis. 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 abscess	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	

	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.

	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, AND if the record has: a) No procedures whatever OR b) All procedures for the record are within the blocks [1820] to [2016] OR c) The record has only one procedure and that procedure is one of 30216-00[1604], 30216-01[1604], 30216-02[1604], 30676-00[1659], 30676-02[1659], 30223-01[1606], 30223-02[1606], 30064-00[1605], 90660-00[1602], 90661-00[1608], 96230-00[1659].
	L03	Cellulitis	As principal diagnosis, AND if the record has: a) No procedures whatever OR b) All procedures for the record are within the blocks [1820] to [2016] OR c) The record has only one procedure and that procedure is one of 30216-00[1604], 30216-01[1604], 30216-02[1604], 30676-00[1659], 30676-02[1659], 30223-01[1606], 30223-02[1606], 30064-00[1605], 90660-00[1602], 90661-00[1608], 96230-00[1659].

	L04	Acute lymphadenitis	As principal diagnosis, AND if the record has: a) No procedures whatever OR b) All procedures for the record are within the blocks [1820] to [2016] OR c) The record has only one procedure and that procedure is one of 30216-00[1604], 30216-01[1604], 30216-02[1604], 30676-00[1659], 30676-02[1659], 30223-01[1606], 30223-02[1606], 30064-00[1605], 90660-00[1602], 90661-00[1608], 96230-00[1659].
	L08	Other local infections of skin and subcutaneous tissue	As principal diagnosis, AND if the record has: a) No procedures whatever OR b) All procedures for the record are within the blocks [1820] to [2016] OR c) The record has only one procedure and that procedure is one of 30216-00[1604], 30216-01[1604], 30216-02[1604], 30676-00[1659], 30676-02[1659], 30223-01[1606], 30223-02[1606], 30064-00[1605], 90660-00[1602], 90661-00[1608], 96230-00[1659].
	L88	Pyoderma gangrenosum	As principal diagnosis, AND if the record has: a) No procedures whatever OR b) All procedures for the record are within the blocks [1820] to [2016] OR c) The record has only one procedure and that procedure is one of 30216-00[1604], 30216-01[1604], 30216-02[1604], 30676-00[1659], 30676-02[1659], 30223-01[1606], 30223-02[1606], 30064-00[1605], 90660-00[1602], 90661-00[1608], 96230-00[1659].

	L98.0	Pyogenic granuloma	As principal diagnosis, AND if the record has: a) No procedures whatever OR b) All procedures for the record are within the blocks [1820] to [2016] OR c) The record has only one procedure and that procedure is one of 30216-00[1604], 30216-01[1604], 30216-02[1604], 30676-00[1659], 30676-02[1659], 30223-01[1606], 30223-02[1606], 30064-00[1605], 90660-00[1602], 90661-00[1608], 96230-00[1659].
	L98.3	Eosinophilic cellulitis [Wells]	As principal diagnosis, AND if the record has: a) No procedures whatever OR b) All procedures for the record are within the blocks [1820] to [2016] OR c) The record has only one procedure and that procedure is one of 30216-00[1604], 30216-01[1604], 30216-02[1604], 30676-00[1659], 30676-02[1659], 30223-01[1606], 30223-02[1606], 30064-00[1605], 90660-00[1602], 90661-00[1608], 96230-00[1659].
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 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 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.
	I70.24	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 2018-19

Guide for use

Data source type: Administrative by-product data

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┌─ **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 2018-19

Guide for use

Data source type: Administrative by-product data

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┌─ **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 2018-19

Guide for use

Data source type: Administrative by-product data

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┌─ **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 2018-19

Guide for use

Data source type: Administrative by-product data

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Denominator: Total population

Denominator data elements:

Disaggregation:

2017–18 (revised), 2018–19—Nationally (by three groups and total) by (all not reported):

- 2016 SEIFA IRSD deciles.
- Sex.

2017–18 (revised), 2018–19—Nationally (by three groups and total) by:

- Indigenous status by remoteness (Australian Statistical Geography Standard (ASGS) 2016 Remoteness Structure).

2017–18 (revised), 2018–19—State and territory (by three groups and total), by:

- remoteness (ASGS 2016 Remoteness Structure).
- Indigenous status.

2017–18 (revised), 2018–19—State and territory (by three groups and total), by (not reported):

- 2016 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 2018-19

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 2016) N(9)

Data Source

National Hospital Morbidity Database (NHMD)

NMDS / DSS

Admitted patient care NMDS 2018-19

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 2021 National Healthcare Agreement performance reporting: 2018–19.

Data for 2017–18 have been revised as data supplied for 2020 performance reporting used procedure exclusions based on the ACHI 9th edition rather than the ACHI 10th edition.

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 and 2018–19 data, the SEIFA IRSD quintiles and deciles used are 2016 SEIFA IRSD quintiles and deciles derived using the ASGS 2016 geographical unit of Statistical Area Level 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

[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

Organisation responsible for providing data: Australian Institute of Health and Welfare

Benchmark: [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, 2021](#)

Further data development / collection required: 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, 2020](#)
  [Health](#), Standard 13/03/2020

Has been superseded by [National Healthcare Agreement: PI 18–Selected potentially preventable hospitalisations, 2022](#)
  [Health](#), Standard 24/09/2021

See also [Australian Health Performance Framework: PI 2.1.4–Selected potentially preventable hospitalisations, 2019](#)
  [Health](#), Superseded 01/12/2020

See also [Australian Health Performance Framework: PI 2.1.6–Potentially avoidable deaths, 2019](#)
  [Health](#), Superseded 01/12/2020

See also [Australian Health Performance Framework: PI 2.4.1–Unplanned hospital readmission rates, 2019](#)
  [Health](#), Superseded 13/10/2021

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, 2021](#)
  [Health](#), Standard 16/09/2020

See also [National Healthcare Agreement: PI 16–Potentially avoidable deaths, 2021](#)
  [Health](#), Standard 03/07/2020

See also [National Healthcare Agreement: PI 23–Unplanned hospital readmission rates, 2021](#)
  [Health](#), Standard 19/11/2020

See also [National Healthcare Agreement: PI 23–Unplanned hospital readmission rates, 2022](#)
  [Health](#), Standard 24/09/2021