

National Healthcare Agreement: PI 18—Selected potentially preventable hospitalisations, 2018

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National Healthcare Agreement: PI 18–Selected potentially preventable hospitalisations, 2018

Identifying and definitional attributes

| | |
|--------------------------------|--|
| Metadata item type: | Indicator |
| Indicator type: | Progress measure |
| Short name: | PI 18–Selected potentially preventable hospitalisations, 2018 |
| METEOR identifier: | 658499 |
| Registration status: | Health! , Superseded 19/06/2019 |
| Description: | <p>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).</p> <p>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.</p> <p>The above definition excludes conditions that are preventable predominately through population health interventions, such as those for clean air and water.</p> |
| Indicator set: | National Healthcare Agreement (2018) Health! , Superseded 16/06/2019 |
| Outcome area: | Primary and Community Health Health! , Standard 07/07/2010 |
| Data quality statement: | National Healthcare Agreement: PI 18-Selected potentially preventable hospitalisations, 2018 QS Health! , Standard 30/01/2018 |

Collection and usage attributes

Computation description: Note that the codes below are from ICD-10-AM 9th edition.

Table 1: ICD-10-AM, 9th 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. |

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|--------------------------------------|-------|---|---|
| | J13 | Pneumonia due to <i>Streptococcus pneumoniae</i> | In any diagnosis. Exclude people under 2 months. |
| | J14 | Pneumonia due to <i>Haemophilus influenzae</i> | 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. |

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| Congestive cardiac failure | I50 | 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]. |
| | I11.0 | Hypertensive heart disease with (congestive) 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]. |
| | J81 | Pulmonary oedema | 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]. |
| 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. |

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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. 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. |

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| | 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 <i>Mycoplasma pneumoniae</i> | 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. |

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| | 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 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. |
| | 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], 30223-02[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], 30223-02[1606], 30064-00[1605], 90660-00[1602], 90661-00[1608], and this is the only listed procedure. |

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| | 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[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. |
| | L88 | Pyoderma gangrenosum | 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. |
| | L98.0 | 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 | Eosinphilic 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. |

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|---------------------------------|-------|--|-------------------------|
| 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. |

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|----------|--------|---|-------------------------|
| 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 2015-16](#)

Guide for use

Data source type: Administrative by-product data

Data Element / Data Set

[Episode of care—additional diagnosis, code \(ICD-10-AM 9th edn\) ANN{,N\[N\]}](#)

Data Source

[National Hospital Morbidity Database \(NHMD\)](#)

NMDS / DSS

[Admitted patient care NMDS 2015-16](#)

Guide for use

Data source type: Administrative by-product data

Data Element / Data Set

[Episode of care—principal diagnosis_code \(ICD-10-AM 9th edn\) ANN{,N\[N\]}](#)

Data Source

[National Hospital Morbidity Database \(NHMD\)](#)

NMDS / DSS

[Admitted patient care NMDS 2015-16](#)

Guide for use

Data source type: Administrative by-product data

Data Element / Data Set

[Episode of admitted patient care—procedure_code \(ACHI 9th edn\) NNNNN-NN](#)

Data Source

[National Hospital Morbidity Database \(NHMD\)](#)

NMDS / DSS

[Admitted patient care NMDS 2015-16](#)

Guide for use

Data source type: Administrative by-product data

Denominator:

Denominator data elements:

Total population

Data Element / Data Set

Person—estimated resident population of Australia

Data Source

[ABS Estimated resident population \(2011 Census-based\)](#)

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 estimates and projections \(2011 Census-based\)](#)

Guide for use

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

Disaggregation:

2015–16—Nationally (by three groups and total) by (all not reported):

- 2011 SEIFA IRSD deciles.
- Sex.

2015–16—Nationally (by three groups and total) by:

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

2015–16—State and territory (by three groups and total), by:

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

2015–16—State and territory (by three groups and total), by (not reported):

- 2011 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 2015-16](#)

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 2015-16](#)

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 2018 National Healthcare Agreement performance reporting: 2015–16.

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 2015-16 data, the SEIFA IRSD quintiles and deciles used are 2011 SEIFA IRSD quintiles and deciles derived using the ASGS 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 Estimated resident population \(2011 Census-based\)](#)

Frequency

Quarterly

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 Indigenous estimates and projections \(2011 Census-based\)](#)

Frequency

Periodic

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, 2018](#)

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, 2017](#)
[Health!](#), Superseded 30/01/2018

Has been superseded by [National Healthcare Agreement: PI 18–Selected potentially preventable hospitalisations, 2019](#)
[Health!](#), Superseded 13/03/2020

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, 2018](#)
[Health!](#), Superseded 19/06/2019

See also [National Healthcare Agreement: PI 16–Potentially avoidable deaths, 2018](#)
[Health!](#), Superseded 19/06/2019

See also [National Healthcare Agreement: PI 23–Unplanned hospital readmission rates, 2018](#)
[Health!](#), Superseded 19/06/2019