Australian Government

Department of Infrastructure, Transport, Regional Development, Communications and the Arts

Data dictionary

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Data source

National hospital separations data were sourced from the Australian Institute of Health and Welfare (AIHW) National Hospital Morbidity Database. A 'separation' is a term used in Australian hospitals to refer to an episode of care for an admitted patient, which can be a total hospital stay (from admission to discharge, transfer or death), or a portion of a hospital stay beginning or ending in a change of type of care (for example, from acute to rehabilitation). The 'care type' defines the overall nature of a clinical service provided to an admitted patient during an episode of care. Examples include acute care, rehabilitation care and palliative care.

Scope and inclusion criteria

To minimise the impact of double counting where a person experienced multiple episodes of care relating to the same condition, the following criteria is applied to estimate cases of hospitalisations:

- An Australian hospital separation ending between 1 January 2011 to 31 December 2021, coded according to the corresponding edition of the ICD-10-AM
- Limiting to standard separations (excludes records where care type is newborn with unqualified days only (7.3), organ procurement - posthumous (9), or hospital boarder (10))
- Excluding records where the admission mode is admitted patient transferred from another hospital (1)
- Excluding records where the admission mode is statistical admission (2) and care type is not acute (1, 7.1, 7.2)
- Excluding records where 'care involving use of rehabilitation procedures' (ICD-10-AM code Z50) appears as an additional diagnosis and care type is not acute (1, 7.1, 7.2)
- Excluding records where the external cause of injury is Complications of medical and surgical care (Y40-Y84), Sequelae of external causes of morbidity and mortality (Y85–Y89), or contact with allergens, except contact with animals (Y37.0-Y37.5 and Y37.7-Y37.9)

International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification

The hospital separations are coded using the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM) classification system.

- ICD-10-AM 6th edition used for 2010-11 reporting year
- ICD-10-AM 7th edition used for 2011-12 & 2012-13 reporting years
- ICD-10-AM 8th edition used for 2013-14 & 2014-15 reporting years
- ICD-10-AM 9th edition used for 2015-16 & 2016-17 reporting years
- ICD-10-AM 10th edition used for 2017-18 & 2018-19 reporting years
- ICD-10-AM 11th edition used for 2019-20, 2020-21 & 2021-22 reporting years

Cause of hospital admission

Cause categories are based on ICD-10-AM coding of the principal diagnosis and external cause.

In the case where multiple external causes are recorded for a single case, the first recorded external cause is used. Where the first recorded external cause is Staphylococcus aureus bacteraemia (U90.0) or a supplementary factor related to causes classified elsewhere (Y90 - Y98), then the next recorded external cause is used instead.

For this custom data extract from the National Hospital Morbidity Database, causes have been grouped into categories as per Table 1.

Hospitalised injuries from road crashes

The data presented in the excel tables and dashboard as 'hospitalised injuries from road crashes' is based on Table 1 Cause Category **(a) Road vehicle traffic accidents (traffic)**.

The excel tables includes a worksheet labelled "raw" which includes causes for hospital admissions with all six categories as (a) traffic, (b) non-traffic, (c) unknown traffic, (d) other transport, (e) other trauma events and (f) medical events.

Road User

Road user refers to the action being undertaken by the injured party at the time of the injury event. The categories are derived from the ICD-10-AM coding of external cause of injury.

- Car driver
- Car passenger
- Car unknown position
- Motorcyclist
- Pedal cyclist
- Pedestrian
- Heavy transport driver
- Heavy transport passenger
- Heavy transport unknown position
- Pick-up truck or van occupant
- Bus occupant
- Other or unknown
- Not applicable

Counterparty

Counterparty refers to the other party or object (if applicable) contributing or being impacted by the injury event. The categories are derived from the ICD-10-AM coding of external cause of injury.

- Car, pick-up truck or van
- 2- or 3- wheeled motor vehicle
- Pedal cycle
- Pedestrian or animal
- Heavy transport vehicle or bus
- Train
- Other non-motor vehicle
- Fixed or stationary object
- Non-collision transport accident
- Other and unspecified transport accidents
- Not applicable

Age groups

Age group refers to the age at the time of admission.

Died in care

Died in care counts the number of cases and bed days where the separation mode was listed as 8, (died) and the separation date was 30 days or less than the date of admission. Note: National output (Data Tables – raw data tab) presents both the number of total cases, and the number of cases ending in death. Cases not ending in death can be calculated by subtracting one from the other.

ABS Remoteness of area of usual residence

Remoteness areas are defined using the Australian Bureau of Statistics (ABS) Australian Statistical Geography Standard (ASGS). In the provided data, remoteness area refers to the location of the usual residence of the patient. The classes of remoteness have been aggregated to:

- Major cities
- Regional (including Inner Regional and Outer Regional areas)
- Remote (including Remote and Very Remote areas)
- Other or unknown refers to when a person's residence was unrecorded or migratory/offshore.

Bed days

Bed days is the total number of patient days where care has been provided. To account for all patient days more accurately, the following criteria have been applied:

- prior to the 2015-16 financial year, the exclusion applied to admissions from internal or external transfers when counting cases is removed for the purposes of bed days. This means that bed days includes records where the admission mode was patient transferred from another hospital (1) or statistical admission (2).

  In cases where an individual received an episode of care ending in a transfer to another hospital, only the first separation will count as a case, but the bed days of both periods of care will be counted. If this occurs over multiple months, the case's corresponding bed days may be recorded against different months. The case and bed days from the first separation will appear in one month, and only the bed days from the second separation will appear in the later month, with no case recorded.

- Changes to the Australian Coding Standard for Rehabilitation (ACS 2104), introduced from 1 July 2015 in the 9th edition of ICD-10-AM, mean that Z50 *Care involving the use of rehabilitation interventions* (which was previously required to be coded as the principal diagnosis) is considered an 'Unacceptable principal diagnosis'.

  For the calculation of bed days from 2015-16 onwards;
  - Cases are excluded where the admission mode is NOT admitted patient transferred from another hospital (1) or statistical admission (2) when care type is not acute, and where 'care involving use of rehabilitation procedures' (ICD-10-AM code Z50) appears as an additional diagnosis.
  - Cases are included where the admission mode is admitted patient transferred from another hospital (1) or statistical admission (2) when care type is not acute, and 'care involving use of rehabilitation procedures' (ICD-10-AM code Z50) appears as an additional diagnosis.

Hospitalised injury rates per 100,000 population

Annual population counts by age, sex and remoteness were provided by the Australian Bureau of Statistics as a custom data request for the reference period 30 June 2021. The population counts are used to calculate the crude hospitalised injury rates.

Data Notes

Victoria: From calendar year 2012, Victoria's data is not directly comparable with previous years due to a break in the series. Victoria changed case inclusion criteria to exclude cases cared for solely in Emergency Departments from 1 July 2012. National Injury Surveillance Unit (NISU - Flinders University) estimates this decreased admitted case counts in Australia by -5.6 per cent in 2012-13 compared to 2011-12. The estimated decrease in 2012 was approximately -2.8 per cent, with the reduction likely to differ by road user group.

NSW: A similar change in NSW occurred from June 2017. The emergency department admission policy was changed for New South Wales hospitals in 2017. Episodes of care delivered entirely within a designated emergency department or urgent care centre are no longer categorised as an admission. This narrowing of the inclusion has the effect of reducing the number of admissions recorded in the 2017 year and going forward. The impact of the change was felt disproportionately among hospitalisations for injury and poisoning. The change in NSW's emergency department admission policy may have had different effects on case numbers within different external cause categories.

Data Tables

- Data tables are presented with grey shading for calendar years 2011 and calendar years from 2017 to indicate the break in series subsequent to the data issues highlighted above.
- Totals in Tables 2.1, 2.2 and 3.1 may not match the totals in Table 1 due to unknown sex, age, road user or remoteness area.

Data is subject to revision.

Refer also www.infrastructure.gov.au/disclaimers

Table 1: Cause of hospital admission

Cases are categorised as accidents as per the table below where a Principal Diagnosis is in the range S00–T98 and the external cause code is the listed range for each category. Please note the external cause codes displayed below have had the period removed from them. For example, 'V001' is ICD-10-AM code V00.1.

(a) Road vehicle traffic accidents (traffic)	(b) Road vehicle non-traffic accidents (non-traffic)	(c) Unknown traffic
'V001','V011','V021','V031','V041','V051','V061','V092','V093','V104','V105','V109','V114','V115','V119','V124','V125','V129','V134','V135','V139','V144','V145','V149','V154','V155','V159','V164','V165','V169','V174','V175','V179','V184','V185','V189','V194','V195','V196','V199','V204','V205','V209','V214','V215','V219','V224','V225','V229','V234','V235','V239','V244','V245','V249','V254','V255','V259','V264','V265','V269','V274','V275','V279','V284','V285','V289','V294','V295','V296','V299','V305','V306','V307','V309','V315','V316','V317','V319','V325','V326','V327','V329','V335','V336','V337','V339','V345','V346','V347','V349','V355','V356','V357','V359','V365','V366','V367','V369','V375','V376','V377','V379','V385','V386','V387','V389','V394','V395','V396','V399','V405','V406','V407','V409','V415','V416','V417','V419','V425','V426','V427','V429','V435','V436','V437','V439','V445','V446','V447','V449','V455','V456','V457','V459','V465','V466','V467','V469','V475','V476','V477','V479','V485','V486','V487','V489','V494','V495','V496','V499','V505','V506','V507','V509','V515','V516','V517','V519','V525','V526','V527','V529','V535','V536','V537','V539','V545','V546','V547','V549','V555','V556','V557','V559','V565','V566','V567','V569','V575','V576','V577','V579','V585','V586','V587','V589','V594','V595','V596','V599','V605','V606','V607','V609','V615','V616','V617','V619','V625','V626','V627','V629','V635','V636','V637','V639','V645','V646','V647','V649','V655','V656','V657','V659','V665','V666','V667','V669','V675','V676','V677','V679','V685','V686','V687','V689','V694','V695','V696','V699','V705','V706','V707','V709','V715','V716','V717','V719','V725','V726','V727','V729','V735','V736','V737','V739','V745','V746','V747','V749','V755','V756','V757','V759','V765','V766','V767','V769','V775','V776','V777','V779','V785','V786','V787','V789','V794','V795','V796','V799','V811','V821','V829','V830','V831','V832','V833','V840','V841','V842','V843','V850','V851','V852','V853','V860','V861','V862','V863','V870','V871','V872','V873','V874','V875','V876','V877','V878','V879','V892','V893'	'V000','V010','V020','V030','V040','V050','V060','V090','V091','V100','V101','V102','V110','V111','V112','V120','V121','V122','V130','V131','V132','V140','V141','V142','V150','V151','V152','V160','V161','V162','V170','V171','V172','V180','V181','V182','V190','V191','V192','V193','V200','V201','V202','V210','V211','V212','V220','V221','V222','V230','V231','V232','V240','V241','V242','V250','V251','V252','V260','V261','V262','V270','V271','V272','V280','V281','V282','V290','V291','V292','V293','V300','V301','V302','V303','V310','V311','V312','V313','V320','V321','V322','V323','V330','V331','V332','V333','V340','V341','V342','V343','V350','V351','V352','V353','V360','V361','V362','V363',,'V370','V371','V372','V373','V380','V381','V382','V383','V390','V391','V392','V393','V400','V401','V402','V403','V410','V411','V412','V413','V420','V421','V422','V423','V430','V431','V432','V433','V440','V441','V442','V443','V450','V451','V452','V453','V460','V461','V462','V463','V470','V471','V472','V473','V480','V481','V482','V483','V490','V491','V492','V493','V500','V501','V502','V503','V510','V511','V512','V513','V520','V521','V522','V523','V530','V531','V532','V533','V540','V541','V542','V543','V550','V551','V552','V553','V560','V561','V562','V563','V570','V571','V572','V573','V580','V581','V582','V583','V590','V591','V592','V593','V600','V601','V602','V603','V610','V611','V612','V613','V620','V621','V622','V623','V630','V631','V632','V633','V640','V641','V642','V643','V650','V651','V652','V653','V660','V661','V662','V663','V670','V671','V672','V673','V680','V681','V682','V683','V690','V691','V692','V693','V700','V701','V702','V703','V710','V711','V712','V713','V720','V721','V722','V723','V730','V731','V732','V733','V740','V741','V742','V743','V750','V751','V752','V753','V760','V761','V762','V763','V770','V771','V772','V773','V780','V781','V782','V783','V790','V791','V792','V793','V810','V820','V835','V836','V837','V839','V845','V846','V847','V849','V855','V856','V857','V859','V865','V866','V867','V869','V880','V881','V882','V883','V884','V885','V886','V887','V888','V889','V890','V891'	'V009','V019','V029','V039','V049','V059','V069','V099','V103','V113','V123','V133','V143','V153','V163','V173','V183','V198','V203','V213','V223','V233','V243','V253','V263','V273','V283','V298','V304','V314','V324','V334','V344','V354','V364','V374','V384','V398','V404','V414','V424','V434','V444','V454','V464','V474','V484','V498','V504','V514','V524','V534','V544','V554','V564','V574','V584','V598','V604','V614','V624','V634','V644','V654','V664','V674','V684','V698','V704','V714','V724','V734','V744','V754','V764','V774','V784','V798','V800','V801','V802','V803','V804','V805','V806','V807','V808','V809','V812','V813','V814','V815','V816','V817','V818','V819','V822','V823','V824','V825','V826','V827','V828','V834','V844','V854','V864','V899'

In addition to the 3 categories listed in the table above, 3 further categories are:

(d) Other transport	'V90','V91','V92','V93','V94','V95','V96','V97','V98','V99'
(e) Other trauma events	a Principal Diagnosis in the range S00-T98 and external cause code not in the range V00 - V99
(f) Other medical events	a Principal Diagnosis not in the range S00-T98