



Principal diagnosis data cubes

Web report | Last updated: 12 Jul 2023 | Topic: [Hospitals](#)

About

The principal diagnosis is defined as the diagnosis established after study to be chiefly responsible for occasioning the patient's episode of care in hospital. In some cases, the principal diagnosis is described in terms of a treatment for an ongoing condition (for example, same-day care for dialysis).

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Data cubes

The following list of data cubes are available for access online. See the [Notes](#) section for more information on how to use the data cubes.

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User guide

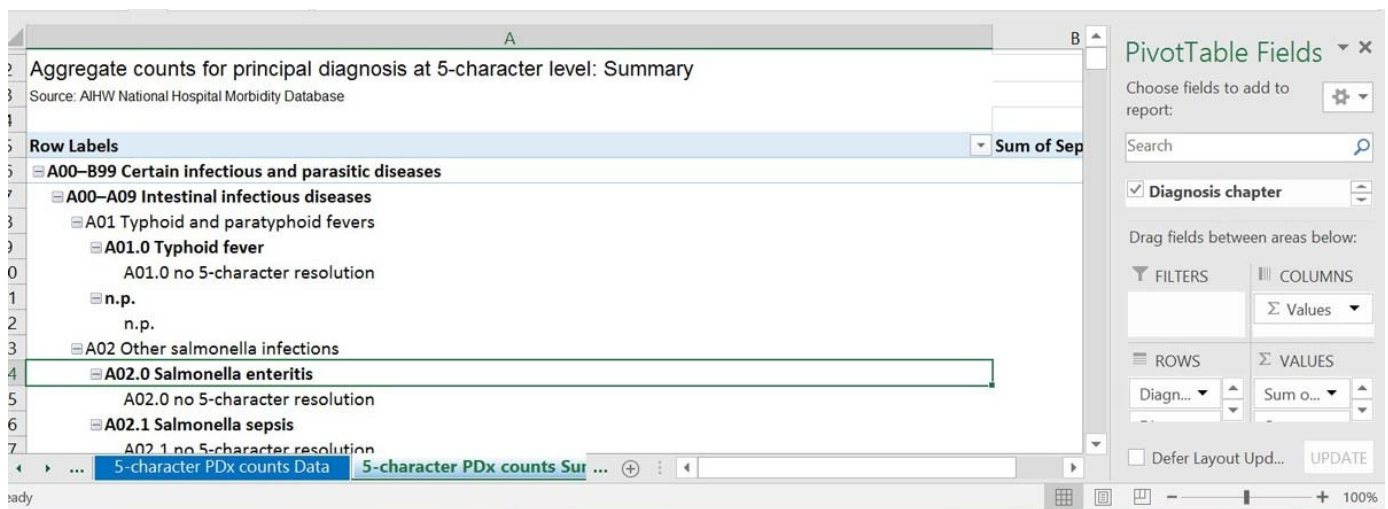
The data cubes can be used to explore a range of clinical data related to hospital separations. This document will provide some tips on how to utilise the data cubes generally and how to deal with the different formats in which the cubes are provided.

From the 2015-16 financial year, hospitals data cubes have been made available in excel format. Prior to 2015-16 hospitals data cubes are available in the SAS cubes software. The guide for extraction of information from these cubes depends on the format in which they are available.

Hospitals data cubes 2015-16 and later

The excel data cube workbooks consist of two sheets:

- 5-character PDx Counts Data contains separation statistics by principal diagnosis by age group by sex by same-day status.
- 5-character PDx Counts Summary contains a pivot table showing separation statistics by principal diagnosis. This pivot table can be modified to various levels by right clicking on the table, selecting 'Show Field List' and then modifying the pivot table as desired.



- Variables in the ROWS list can be removed to disaggregate at higher levels.
- Variable such as age group, sex and/or same-day flag can be dragged to the COLUMNS list to disaggregate by these variables.

The cubes contain information on the number of separations and number of patient days. Once the cube has been aggregated/disaggregated to the desired level, average length of stay can be calculated as number of patient days/number of separations.

Hospital data cubes prior to 2015-16

These data cubes will open in a new window. Data will be displayed at the most aggregated level.

File View Data

Table of Contents
Section1

Section Data Options

HDU_PDX 1315 suppressed

- Year
- Principal diagnosis
- Age group
- Sex
- Same day flag
- Separations
- Patient days
- Average length of stay

Separation statistics by principal diagnosis (ICD-10-AM 8th edition), Australia, 2013-14 to 2014-15

Applied filters: None

Chapter	Year	
	2013-14 Separations	2014-15 Separations
1 Certain infectious and parasitic diseases (A00-B99)	147,309	150,237
2 Neoplasms (C00-D48)	615,471	640,348
3 Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89)	148,633	161,283
4 Endocrine, nutritional and metabolic diseases (E00-E89)	146,460	156,785
5 Mental and behavioural disorders (F00-F99)	376,187	395,613
6 Diseases of the nervous system (G00-G89)	282,748	275,887
7 Diseases of the eye and adnexa (H00-H59)	349,409	383,070
8 Diseases of the ear and mastoid process (H60-H95)	60,797	63,874
9 Diseases of the circulatory system (I00-I99)	480,548	490,092
10 Diseases of the respiratory system (J00-J99)	407,511	437,965
11 Diseases of the digestive system (K00-K93)	977,513	1,008,107
12 Diseases of the skin and subcutaneous tissue (L00-L99)	181,293	164,451
13 Diseases of the musculoskeletal system and connective tissue (M00-M99)	521,097	534,187
14 Diseases of the genitourinary system (N00-N99)	466,725	470,574
15 Pregnancy, childbirth and the puerperium (O00-O99)	465,755	490,675
16 Certain conditions originating in the perinatal period (P00-P96)	65,288	65,746
17 Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	38,120	38,539
18 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	708,534	757,559
19 Injury, poisoning and certain other consequences of external causes (S00-T98)	624,284	650,630
21 Factors influencing health status and contact with health services (Z00-Z99)	2,648,802	2,812,396
Not reported	4,393	2,349

Source: AIHW National Hospital Morbidity Database

Expanding categories and sub-categories

Clicking on the plus (+) symbols against each row will expand that item into its relevant sub categories, within the current view.

Clicking the arrow symbols beside the plus will expand the category and also limit the view to just that expanded area of interest.

Right clicking on category headings such as ICD Diagnosis Chapter will bring up a menu where you can click 'Expand All', which will expand every item in that list. If you also do this with the subchapter and other headings you can expand out the entire data cube and display all of the available information.

File View Data

Table of Contents
Section1

Section Data Options

HDU_PDX 1315 suppressed

- Age group
- Principal diagnosis
- Same day flag
- Year
- Average length of stay
- Patient days
- Separations

Separation statistics by principal diagnosis (ICD-10-AM 8th edition), Australia, 2013-14 to 2014-15

Source: AIHW National Hospital Morbidity Database

Applied filters: None

Chapter	Subchapter	Year	
		2013-14 Separations	2014-15 Separations
1 Certain infectious and parasitic diseases (A00-B99)		147,309	150,237
	and pharynx (C00-C14)	6,866	6,517
	nas (C15-C26)	51,339	53,070
	and intrathoracic organs (C30-C39)	20,418	21,114
	cular cartilage (C40-C41)	1,561	1,936
	asms of skin (C43-C44)	114,167	120,559
	and soft tissue (C45-C49)	4,716	4,847
	al organs (C51-C58)	25,367	25,167
	organs (C60-C63)	10,949	10,803
	(C64-C68)	35,637	35,330
	d other parts of central nervous system (C69-C72)	19,369	19,478
	ther endocrine glands (C73-C75)	6,819	7,068
	secondary and unspecified sites (C76-C80)	5,398	5,594
	Malignant neoplasms of lymphoid, haematopoietic and related tissue (C81-C96)	42,653	43,767
		52,778	54,890

Adding breakdowns

In the default view, the cube will just present the number of hospital separations by year but you can also add other breakdowns such as by Age group, sex, and patient days or average length of stay.

To add an extra breakdown, right click on one of the numbers in the cube and choose 'Assign data'.

File View Data

Table of Contents
Section1

Section Data Options

HDU_PDX 1315 suppressed

- Year
- Principal diagnosis
- Age group
- Sex
- Same day flag
- Separations
- Patient days
- Average length of stay

Applied filters: None

Separation statistics by principal diagnosis (ICD-10-AM 8th edition), Australia, 2013-14 to 2014-15

Chapter	Subchapter	Year	2013-14 Separations	2014-15 Separations
1	Certain infectious and parasitic diseases (A00-B99)		147,300	150,237
2	Neoplasms (C00-D48)		146,923	155,349
3	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89)		30,619	32,647
4	Endocrine, nutritional and metabolic diseases (E00-E89)		148,533	161,283
5	Mental and behavioural disorders (F00-F99)		146,400	156,785
6	Diseases of the nervous system (G00-G99)		378,187	395,613
7	Diseases of the eye and adnexa (H00-H59)		262,748	275,887
8	Diseases of the ear and mastoid process (H60-H95)		349,409	383,070
9	Diseases of the circulatory system (I00-I99)		60,797	63,874
10	Diseases of the respiratory system (J00-J99)		480,548	490,092
11	Diseases of the digestive system (K00-K93)		407,511	437,965
12	Diseases of the skin and subcutaneous tissue (L00-L99)		977,513	1,008,107
13	Diseases of the musculoskeletal system and connective tissue (M00-M99)		161,293	164,451
			521,097	534,187

Assign Data ...
Total ...
Percent of Total ...
Filter and Rank ...
Conditional Highlighting ...
Export Table ...
Rotate Table
Find ...
Data Source Details
Properties

Then choose which variables to add to rows or columns of the cube.

File View Data

Table of Contents
Section1

Section Data Options

HDU_PDX 1315 suppressed

- Year
- Principal diagnosis
- Age group
- Sex
- Same day flag
- Separations
- Patient days
- Average length of stay

Applied filters: None

Separation statistics by principal diagnosis

Assign Data...

Data items:

- Columns
 - Year
 - Separations
- Rows
 - Principal diagnosis
 - Hidden
 - Sex
 - Same day flag
 - Age group
 - Patient days
 - Average length of stay

OK Cancel Help

Year	2013-14 Separations	2014-15 Separations
	147,300	150,237
	6,896	6,517
	51,339	53,070
	20,418	21,114
	1,661	1,936
	114,167	120,559
	4,716	4,847
	25,397	25,167
	10,949	10,803
	35,637	35,330
	19,369	19,478
stem (C69-C72)	6,819	7,088
	5,398	5,594
6-C80)	42,653	43,707
81-C96)	52,778	54,890
	39,892	42,212
	148,923	155,349
	30,619	32,647
	148,533	161,283
	146,400	156,785
	378,187	395,613
	262,748	275,887
	349,409	383,070
	60,797	63,874
	480,548	490,092
	407,511	437,965
	977,513	1,008,107
	161,293	164,451
	521,097	534,187

Exporting data to Excel

The current view of the data cube can easily be exported to Excel by choosing 'Export...' from the 'File' menu, and then saving the zipped file to your computer. When extracting the zip archive you will need to extract all files in the archive before opening the downloaded Excel document.

Exporting the whole data cube

To do this, first see the notes about Expanding the categories and sub categories first and using Expand All. Then once you have the full view of the cube, export the data as per the step above.

Tips on using the Principal diagnosis data cube

Note that the use of the different ICD editions in the data cubes over time means that data across years may not be exactly comparable.

Within the cubes, users can view the diagnoses by working down from the broad chapter level in the ICD classifications to more specific categories (i.e. principal diagnosis code), as illustrated below:

- ICD Chapter
- ICD Sub-Chapter
- ICD 3-character code
- ICD 4-character code (where relevant)
- ICD 5-character code (where relevant)

For example:

- Endocrine, nutritional and metabolic diseases (E00-E89)
 - Disorders of thyroid gland (E00-E07)
 - Other hypothyroidism (E03)
 - Congenital hypothyroidism without goitre (E03.1)

Users of the data cubes are likely to require some familiarity with ICD-9-CM and ICD-10-AM and can also refer to the Australian Hospital Statistics publications. Users will generally need to know what chapter the information they are looking for is in, to work down to more specific levels of detail. More information about the breakdowns and categories used within the data cube are given below.

International Classification of Diseases (ICD)

Principal diagnoses are classified according to either the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) or the *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification* (ICD-10-AM). The use of the different classifications (ICD-9-CM and ICD-10-AM) in the data cubes means that data from 1998-99 onwards may not be exactly comparable with the earlier data (1993-94 to 1997-98).

In addition, there are some differences in the coding between ICD-10-AM editions and these will be reflected in the cube. Readers should refer to *further information* below for information on how to access the full classification and for detailed information on the differences between ICD-9-CM, ICD-10-AM and the different editions of ICD-10-AM.

The following is a list of the ICD disease chapters used in the data cube and the code ranges covered by each:

Chapter	Disease classification	Code range
1	Certain infectious and parasitic diseases	A00-B99
2	Neoplasms	C00-D48
3	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D50-D99
4	Endocrine, nutritional and metabolic diseases	E00-E99
5	Mental and behavioural disorders	F00-F99
6	Diseases of the nervous system	G00-G99
7	Diseases of the eye and adnexa	H00-H59
8	Diseases of the ear and mastoid process	H60-H99
9	Diseases of the circulatory system	I00-I99
10	Diseases of the respiratory system	J00-J99
11	Diseases of the digestive system	K00-K99
12	Diseases of the skin and subcutaneous tissue	L00-L99
13	Diseases of the musculoskeletal system and connective tissue	M00-M99
14	Diseases of the genitourinary system	N00-N99
15	Pregnancy, childbirth and the puerperium	O00-O99
16	Certain conditions originating in the perinatal period	P00-P99
17	Congenital malformations, deformations and chromosomal abnormalities	Q00-Q99
18	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	R00-R99
19	Injury, poisoning and certain other consequences of external causes	S00-T98
20	External Causes of Morbidity and Mortality	U50-Y99
21	Factors influencing health status and contact with health services	Z00-Z99

Notes

Tips on using the data cubes

Please refer to the [Hospital principal diagnosis data cubes user guide](#) for instructions on using and downloading from the data cubes.

Data source(s)

The source of these data is the AIHW National Hospital Morbidity Database. It contains separation statistics for all separations excluding newborns with only unqualified days, boarders and posthumous organ procurement. More information on the principal diagnosis reported for admitted patients is available in the [Australian hospital statistics](#) reports.

Confidentiality

In order to maintain confidentiality, some data have been suppressed. This has been applied at the three, four and five digit/character level for the principal diagnosis data cubes. Data for the suppressed categories will be included in the higher level totals.

More online data cubes

[Procedures data cubes](#) and [AR-DRG data cubes](#) can also be accessed online.

ICD-10-AM/ACHI/ACS classification information

For more information on the ICD-10-AM/ACHI/ACS classifications please note that the first seven editions of the ICD-10-AM were developed by the [National Centre for Classification in Health \(NCCH\)](#), The University of Sydney, the Eighth edition by the [National Casemix and Classification Centre \(NCCC\)](#), and from the Ninth edition, see the Australian Consortium for Classification Development (ACCD).

Request a customised data analysis

If you are looking for statistics that are not available in publications or data cubes, we also offer a data request service. Customised data analyses can be provided, subject to data quality and confidentiality requirements, from a range of AIHW-held databases. Please note that a fee may apply for this service.

[Request a customised data analysis](#)



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