

# NSW Emergency Department Data Collection

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Legacy Data dictionary for data to 30 June 2023

April 2024

# Contents

<b>Background</b> .....	<b>1</b>
Changes to data collection – July 2023 .....	1
<b>Considerations for using EDDC in linkage studies</b> .....	<b>1</b>
Limitations of EDDC for linkage studies .....	1
Ed Coverage .....	1
Diagnosis coding .....	2
Other limitations .....	2
<b>Geographical boundaries</b> .....	<b>3</b>
Changes to geocoding and boundaries introduced in 2023 .....	3
<b>Access to information on Aboriginal and Torres Strait Islander peoples</b> .....	<b>3</b>
<b>Data Custodian</b> .....	<b>5</b>
<b>Variable list</b> .....	<b>6</b>
Code lists .....	10

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# Background

The primary purpose of collecting Emergency Department data in NSW to monitor patient presentations to, and the activity undertaken in, the Emergency Departments (EDs) of public hospitals and in scope contracted private hospitals in NSW.

Each record in the Emergency Department Data Collection (EDDC) represents a presentation to an emergency department. An Emergency Presentation is where a person presents to the Emergency Department for emergency care and treatment. This includes patients that are transferred from another unit or ward within the facility or another facility's Emergency Department for treatment within the ED. Presentations to an Emergency Department include, but are not limited to, patients who:

- Register to be seen for an ED service but did not wait for the service to be delivered
- Are triaged and advised to seek alternate services, and then depart the ED
- Are dead on arrival if an ED clinician certifies the death
- Are provided with clinical assessment and advice via telehealth. Such services must be identified as being provided via telehealth

A patient treated in the ED who is subsequently admitted to the hospital will require the reporting of an ED presentation to the EDDC and an admitted patient record reported to the Admitted Patient Data Collection. All patients remain in-scope for this collection until they are recorded as having physically departed the emergency department.

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## Changes to data collection – July 2023

On 1 July 2023 NSW Health launched a new centralised data warehouse known as EDWARD: a contemporary system to ensure our data and information is high quality, integrated, accessible and utilised.

This data dictionary document and variable lists describes the content and form of data collected in the previous system and are applicable for data relating ED visits prior to 1 July 2023.

CHEREL services will continue with NSW EDDC data to June 2023 in their current format.

Additional information on the timelines and detail regarding the structure, format, and availability of EDDC data relating to ED Visits on or after 1 July 2023 for linked data projects be made available once confirmed.

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# Considerations for using EDDC in linkage studies

The NSW EDDC has substantial limitations. These limitations must be considered when planning a study using ED data, and, when interpreting and presenting the results.

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## Limitations of EDDC for linkage studies

### Ed Coverage

- The EDDC commenced in 1994. It was only organised into a formal data collection from July 1996.
- Personal identifiers were included in the data collection from 1 January 2005 onwards.

- The number of hospitals participating in the EDDC has increased over time from approximately 52 in 1996-97 to 184 in 2016-17. The number of hospitals participating has been lower in rural Local Health Districts.
- The larger EDs participate in the EDDC so a substantial proportion of the NSW population is covered, however this varies over time. To determine the proportion of total NSW ED visits captured by the NSW EDDC, use the number of ED presentations reported in the NSW Department of Health Annual Report as a denominator, as this is an independent source of information collected on all hospitals.
- Only public hospital EDs are available for record linkage.
- Records from Northern Beaches Hospital are not yet available for linkage.

## Diagnosis coding

The NSW Admitted Patient Data Collection has diagnoses coded by trained clinical information managers who choose diagnoses from the Australian clinical version of the International Classification of Diseases (ICD). The EDDC, on the other hand, has diagnoses recorded by medical, nursing, or clerical personnel at the point of care. These personnel are not trained in clinical coding. The diagnoses are selected by keyword searching or tables of a limited set of diagnoses. The codes are assigned to the chosen diagnosis using tables built into the computer database program.

Other points to note are:

- There are several different computer programs used in NSW Emergency Departments (EDs). Different programs use different classifications to record the diagnosis, including ICD-9-CM (Clinical Modification), ICD-10-AM (Australian Modification), or SNOMED CT (see <https://www.healthterminologies.gov.au/>) If you intend on analysing ED diagnoses, you need to determine the codes from each of these classifications that relate to the disease or symptom grouping to be studied.
- Variation in computer programs and management practices at EDs may lead to variation in diagnosis coding practices. Some disease categories are not available in some programs but may be in others.
- A small number of hospitals have had limited completeness of diagnosis entry over some periods of time.
- You should carefully select which EDs to include in the analysis based on how long the ED has participated in the EDDC and specific diagnosis code and completeness factors.
- Symptoms can be, and often are, selected as diagnoses.
- Diagnoses can be very specific or very broad. For example, someone with the same symptoms might be assigned a diagnosis of "influenza" or "viral infection".

## Other limitations

- The other main source of primary care in Australia is general practice services. Because of variability in GP service availability, limited consultation hours and variation in bulk billing practices, ED activity may be very sensitive to availability of GP services.
- Emergency Departments have different visit types, the most common being an "Emergency Visit". The data field "Type of visit" records this, however the accuracy of this field is uncertain. Since 2007, the gradual rollout of new ED patient management software in most NSW hospitals may have led to a change in the accuracy of this field over time.
- Introduction of the new ED patient management software may have led to an unpredictable change in the accuracy of the "mode of separation" field over time at some hospitals. This field records the departure status of the patient, such as "Departed following treatment", or "Admitted to a critical care ward". Some problems with this field were not identified until well after introduction of the software and may have taken some time to correct.

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# Geographical boundaries

Geocoding is the process of converting physical addresses to a latitude and longitude pair. These pairs can then be matched to geographical boundaries, such as local government areas, health administration regions or other boundaries maintained by agencies like the Australian Bureau of Statistics.

When considering which version(s) of a boundary to select, you should consider which boundary versions are used in the relevant area level data for the project (e.g., population data, Socio-Economic Indexes for Areas (SEIFA), or Accessibility/Remoteness Index of Australia (ARIA+) indices, other data source in a linked data project).

Postcode is not a geographical boundary.

## Changes to geocoding and boundaries introduced in 2023

In 2023, the NSW Ministry of Health transitioned to using a new geocoding and boundary tagging software. As part of this transition, historical records from the Admitted Patient Data Collection were re-geocoded using the new software.

The following boundaries are available:

### Australian Statistical Geography Standard (ASGS) 2016

- Statistical Area Level 2 (ASGS 2016 SA2)
- Statistical Area Level 3 (ASGS 2016 SA3)
- Statistical Area Level 4 (ASGS 2016 SA4)
- Local Government Area (LGA 2016)

### ASGS 2021

- Statistical Area Level 2 (ASGS 2021 SA2)
- Statistical Area Level 3 (ASGS 2021 SA3)
- Statistical Area Level 4 (ASGS 2021 SA4)
- Local Government Area (LGA 2021)

### Health Administration regions

- Local Health District (LHD 2011)
- Primary Health Network (PHN 2017)

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# Access to information on Aboriginal and Torres Strait Islander peoples

An application to the Aboriginal Health and Medical Research Council (AH&MRC) ethics committee should be made for research projects for which one or more of the following apply:

- The experience of Aboriginal people is an explicit focus of all or part of the research.
- Data collection is explicitly directed at Aboriginal peoples.
- Aboriginal peoples, as a group, are to be examined in the results.
- The information has an impact on one or more Aboriginal communities.
- Aboriginal health funds are a source of funding.

Research that is not specifically directed at Aboriginal people or communities, such as for the total population or a sub-population (e.g., rural NSW, people over 50 years old) can still potentially impact on Aboriginal people.

However, an application for such research need only be made to the Committee if any one of the following applies:

- Any of the five factors listed above are present: or
- Aboriginal people are known, or are likely, to be significantly over-represented in the group being studied (e.g., compared to the 2.1% of the total NSW population as shown in the 2006 Census); or
- The Aboriginal experience of the medical condition being studied is known, or is likely, to be different from the overall population; or
- There are Aboriginal people who use the services being studied in distinctive ways, or who have distinctive barriers that limit their access to the services; or
- It is proposed to separately identify data relating to Aboriginal people in the results.

The AH&MRC ethics committee have some specific requirements, including evidence of community engagement in the research. Relevant documents can be found on the AH&MRC website at: <http://www.ahmrc.org.au>. If you are unsure whether an application to the AH&MRC Ethics Committee is required, please seek the advice of the Ethics Committee secretariat (T: 02 9212 4777)

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# Data Custodian

Executive Director, System Information and Analytics, NSW Ministry of Health.

CHeReL organises data custodian sign-off for NSW APDC data on behalf of the researcher. To arrange sign-off, please contact:

Research Project Manager

Centre for Health Record Linkage

NSW Ministry of Health

1 Reserve Road

ST LEONARDS NSW 2065

Post: Locked Mail Bag 961

North Sydney NSW 2059

Phone: 02 9391 9924

Fax: 02 9391 9686

Email: [MOH-CHeReL@health.nsw.gov.au](mailto:MOH-CHeReL@health.nsw.gov.au)

# Variable list

Note that the variable list below is valid for data to June 2023 only.

Variable	Description/Notes	Name[s] in dataset	Codes
Facility type	The category of the facility through which the health service is delivered.	facility_type	
Peer group	Facility peer grouping (Public Hospitals only) For more information please see: <a href="https://www1.health.nsw.gov.au/pds/Pages/doc.aspx?dn=IB2016_013">https://www1.health.nsw.gov.au/pds/Pages/doc.aspx?dn=IB2016_013</a>	peer_group	<u>Codes: Peer group</u>
Local Health District of Facility		area_identifier	<u>Codes: Local Heath District (LHD)</u>
Facility identifier	The specific establishment where the presentation occurred. Where information on specific facilities is required, specify by name.	facility_identifier	Code lists are updated regularly.
Arrival date	Date at which the person presents for the service	arrival_date	
Arrival time	Time at which the person presents for the service	arrival_time	
Triage date	The date on which a person who presented to an Emergency Department was triaged (i.e., assessed by a Triage Nurse).	triage_date	
Triage time	The time at which a person who presented to an Emergency Department was triaged (i.e., assessed by a Triage Nurse).	triage_time	
Doctor seen date	The date that the first medical officer commences assessment or treatment of the patient.	first_seen_clinician_date	
Doctor seen time	The time that the first medical officer commences assessment or treatment of the patient.	first_seen_clinician_time	
Nurse Practitioner seen date	The date that treatment is commenced by a nurse.	first_seen_nurse_date	
Nurse Practitioner seen time	The time that treatment is commenced by a nurse.	first_seen_nurse_time	



Variable	Description/Notes	Name[s] in dataset	Codes
Departure ready date	The date recorded to indicate that patient management undertaken in an Emergency Department was completed, and the patient was ready to depart the ED.	departute_ready_date	
Departure ready time	For the admitted patient, the time at which the assessment and initial treatment of the person is completed. For the Non-admitted patient, the time at which the assessment and initial treatment of the person is completed such that if home arrangements of the person (including transport) were available the person could depart.	departute_ready_time	
Actual departure date	For the admitted patient this refers to the date the person is either 1) transferred to a ward or other unit or 2) leaves the ED for transfer to another unit. For non-admitted patients this refers to the date at which the assessment and initial treatment is completed and/or they physically leave the department.	actual_departure_date	
Actual departure time	For the admitted patient this refers to the time the person is either 1) transferred to a ward or other unit or 2) leaves the ED for transfer to another unit. For non-admitted patients this refers to the time at which the assessment and initial treatment is completed and/or they physically leave the department.	actual_departure_time	
Triage category	Triage is the process used to classify patients according to the urgency of their needs for medical and nursing care	triage_category	<u>Codes: Triage category</u>
Referral source	Source from which the person was referred to this service	ed_source_of_referral	<u>Codes: Referral source</u>
Type of visit	The reason the person presents to the Emergency Department	ed_visit_type	<u>Codes: ED visit type</u>
Mode of arrival	Mode of transport by which the person arrives	arrival_mode	<u>Codes: Mode of arrival</u>
Mode of separation	The status of the person at separation from the Emergency Department	mode_of_separation	<u>Codes: Mode of separation</u>
Referred to on departure	Referred to at the end of the Emergency Department Contact.	referred_to_on_departure_recode	<u>Codes: Referred to on departure</u>
Clinical codeset	An identifier to identify the classification scheme a principal diagnosis has been mapped to.	clinical_codeset	ICD10AM; ICD10V8; ICD9CM; SNOMEDCT
Principal ED Diagnosis	The diagnosis or condition established after assessment to be responsible for the person presenting to the Emergency Department. If the person is admitted as an inpatient it is the equivalent of the admission diagnosis.	ed_diagnosis_sct, ed_diagnosis_code	Cerner FirstNet sites – SNOMED CT EDIS, iPM and Health-e-care – ICD9 and ICD10

Variable	Description/Notes	Name[s] in dataset	Codes
	For Cerner FirstNet sites, this variable is captured as “Discharge Diagnosis”. For EDIS and iPM sites it is known as “Principal Diagnosis”		
Compensable status	A person is classified as a compensable patient if they are entitled to the payment of, or have been paid compensation, damages or other benefits (including a payment in settlement of a claim for compensation, damages or other benefits) in respect of the injury, illness or disease for which he or she is receiving care and treatment.	compensable_status	<u>Codes: Compensable status</u>
Department of Veterans Affairs card type	Indicates the type of Veterans Affairs card	DVA_card_type	1 = White Card; 2 = Gold Card; 3 = Orange Card
Sex	The biological sex of the patient.	sex	<u>Codes: Sex</u>
Age	The age in years of the patient (derived)	age_recode	Arrival date – date of birth
Age group	Five year age group, derived from re-coded age	age_grouping_recode	<u>Codes: Age group</u>
Birth date	Full date of birth will only be supplied if sufficient justification is supplied that age is insufficient. Year and month may be provided	birth_date	
Country of birth		country_of_birth	<u>SACC 2016</u>
Marital status	The marital status of the patient at time of presentation	marital_status_nhdd	
Indigenous status	Whether the person is Aboriginal or Torres Strait Islander, based on the person’s own self-report. See notes above regarding access to this variable.	indigenous_status	
Need for interpreter service	Need for interpreter services as perceived by the person. Whether or not an interpreter is actually provided is not relevant.	need_interpreter_service	' ' = Interpreter not needed; 'Y' = Interpreter needed
Preferred language	The language (including sign language) most preferred by the person for communication	preferred_language_ascl	<u>ASCL 2016</u>
State of residence	Indicates the Australian state of residence for the patient.	state_of_residence_recode	<u>Codes: State of usual residence</u>
Local Health District of residence	Local Health District of residence (2011 boundaries)	LHD_2011_code	<u>Codes: Local Health District (LHD)</u>
Primary Health Network	Primary Health Network 2017	PHN_2017_Code	<u>PHN Boundaries</u>
	ASGS 2016 Statistical Area Level 2	SA2_2016_code	<u>ASGS 2016</u>

Variable	Description/Notes	Name[s] in dataset	Codes
Australian Statistical Geography Standard (ASGS) 2016 Boundaries	ASGS 2016 Statistical Area Level 3	SA3_2016_code	
	ASGS 2016 Statistical Area Level 4	SA4_2016_code	
	Local Government Area 2016	LGA_2016_code	
ASGS 2021 Boundaries	ASGS 2021 Statistical Area Level 2	SA2_2021_code	<a href="#">ASGS 2021</a>
	ASGS 2021 Statistical Area Level 3	SA3_2021_code	
	ASGS 2021 Statistical Area Level 4	SA4_2021_code	
	Local Government Area 2021	LGA_2021_code	

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## Code lists

### Codes: Compensable status

Code	Description
1	Non-compensable
2	WorkCover
3	Motor Accident Act
4	Transcover
5	Other Compensable
6	Medicare Ineligible/Overseas Visitor
7	Department of Veteran's Affairs
8	Defence Force personnel
9	Eligible Overseas Visitor

### Codes: Referral source

Code	Description
1	Self, family, friends
2	Specialist
3	Outpatient clinic
4	General Medical Practitioner or Dentist (not hospital based)
5	Residential Aged Care facility
6	Other hospital in Area Health Service
7	Other hospital outside Area Health Service
8	Other hospital outside NSW
9	Mental health
10	Department of Community Services
11	Other Community Service, other than Health
12	Prison or Justice Health
14	Occupational Health
15	Other health service
16	Community Health Service
17	After hours or co-located service
18	Hostel/group home
19	Employer
99	Other

## Codes: ED visit type

Code	Description
01	Emergency presentation
02	Return visit - planned
03	Unplanned return visit for continuing condition
04	Outpatient clinic
05	Privately referred, non-admitted person
06	Pre-arranged admission: without ED workup
08	Pre-arranged admission: with ED workup
09	Person in transit
10	Dead on arrival
11	Disaster

## Codes: Local Health District (LHD)

Code	Description
X700	Sydney LHD
X710	South Western Sydney LHD
X720	South Eastern Sydney LHD
X730	Illawarra Shoalhaven LHD
X740	Western Sydney LHD
X750	Nepean Blue Mountains LHD
X760	Northern Sydney LHD
X770	Central Coast LHD
X800	Hunter New England LHD
X810	Northern NSW LHD
X820	Mid North Coast LHD
X830	Southern NSW LHD
X840	Murrumbidgee LHD
X850	Western NSW LHD
X860	Far West LHD
X630	Sydney Children's Hospitals Network
X690	St Vincent's Health Network
X180	Forensic Mental Health Network
X170	Justice Health
X910	NSW not further specified
X920	Victoria
X921	Albury (Victoria in-reach)
X930	Queensland
X940	South Australia
X950	Western Australia

Code	Description
X960	Tasmania
X970	Northern Territory
X980	Australian Capital Territory
X990	Other Australian Territories
X997	Overseas Locality
X998	No Fixed Address
9999	Missing

### Codes: Indigenous Status

Code	Description
1	Aboriginal
2	Torres Strait Islander
3	Aboriginal and Torres Strait Islander origin
4	Neither Aboriginal nor Torres Strait Islander
5	Indigenous – not further specified
8	Declined to respond
9	Unknown

### Codes: Marital Status (NHDD)

Code	Description
1	Never married
2	Widowed
3	Divorced
4	Separated
5	Married (including de facto)
6	Not stated/inadequately described

### Codes: Age group

Code	Description
1	0 - 4 years
2	5 - 9 years
3	10 - 14 years
4	15 - 19 years
5	20 - 24 years
6	25 - 29 years
7	30 - 34 years
8	35 - 39 years
9	40 - 44 years
10	45 - 49 years
11	50 - 54 years

Code	Description
12	55 - 59 years
13	60 - 64 years
14	65 - 69 years
15	70 - 74 years
16	75 - 79 years
17	80 - 84 years
18	85+ years
19	Missing / invalid data

### Codes: Mode of arrival

Code	Description
1	State Ambulance vehicle
2	Community/public transport
3	Private vehicle
4	Helicopter Rescue Service
5	Air Ambulance Service
6	Internal ambulance/transport
7	Police/Correctional Services vehicle
8	Other, e.g. undertakers/contractors
9	No transport (walked in)
10	Retrieval
11	Internal bed/wheelchair

### Codes: Mode of separation

Code	Description
1	Admitted: To ward/inpatient unit, not a critical care ward
2	Admitted and discharged as inpatient within ED
3	Admitted: Died in ED
4	Departed: Treatment completed
5	Departed: Transferred to another hospital without first being admitted to the hospital transferred from
6	Departed: Did not wait
7	Departed: Left at own risk
8	Dead on arrival
9	Departed: For other clinical service location
10	Admitted: To critical care ward (including HDU/CCU/NICU)
11	Admitted: Via operating suite
12	Admitted: Transferred to another hospital
13	Admitted: Left at own risk
99	Registered in error

## Codes: Sex

Code	Description
1	Male
2	Female
3	Indeterminate/Intersex
4	Transgender
9	Not stated/inadequately described/unknown

## Codes: Peer group

See [NSW Hospital Peer groups 2016](#).

## Codes: State of usual residence

Code	Description
AAT	Australian Antarctic Territory
ACT	Australian Capital Territory
NS	Not Stated / Inadequately described
NSW	New South Wales
NT	Northern Territory
OS	Overseas
OT	Other Territories
QLD	Queensland
SA	South Australia
TAS	Tasmania
VIC	Victoria
WA	Western Australia

## Codes: Triage category

Code	Description
1	Resuscitation
2	Emergency
3	Urgent
4	Semi urgent
5	Non urgent
U	Any or none



## Codes: Referred to on departure

Code	Description
01	Review in ED - Scheduled
02	Review in ED - As required
03	Community Health (excluding Mental Health/Alcohol & Drugs)
04	Home Nursing
05	General Practitioner/LMO
06	Outpatient Clinic
07	Other
08	Not referred
09	Not known
10	Specialist
11	Mental Health, Alcohol and Other Drugs Inpatient Facility
12	Mental Health, Alcohol and Other Drugs Non-Inpatient Facility

