# National Minimum Dataset (Hospital Inpatient Events)

# **DATA MART - DATA DICTIONARY**

Version 7.8 February 2016



NMD Data Mart Data Dictionary

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#### **Publications**

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#### Introduction

#### **Objectives**

The objectives of the Ministry of Health ('the Ministry') Data Dictionaries are to:

- describe the information available within the National Collections
- promote uniformity, availability and consistency across the National Collections
- support the use of nationally agreed protocols and standards wherever possible
- promote national standard definitions and make them available to users.

It is hoped that the greater level of detail along with clear definitions of the business rules around each element will assist with providing and using the data.

The target audiences for Data Dictionaries are data providers, software developers, and data users.

All data element definitions in the Data Dictionaries are presented in a format based on the Australian Institute of Health and Welfare National Health Data Dictionary. This dictionary is based on the ISO/IEC Standard 11179 Specification and Standardization of Data Elements—the international standard for defining data elements issued by the International Organization for Standardization and the International Electrotechnical Commission.

The format is described in detail in the appendices of this dictionary.

#### Changes to dictionary format

A more rigorous approach to recording changes in the data elements has been introduced in these dictionaries along with background material on the features of time-series data for each element.

In summary, the changes to the data dictionaries include:

- standardisation of the element names so that, for instance, a healthcare user's NHI number is referred to as NHI number in all collections
- elements are listed alphabetically within each table, and the tables are organised alphabetically
- each table is described
- verification rules, historical information, and data quality information are included
- · alternative names for the elements are listed
- information about how the data is collected is given
- related data, and references to source documents and source organisations are included
- · an alphabetical index is included
- code tables are included with the element, or a reference given to the Ministry's web site (for large or dynamic code tables).

Audiences

**Format** 

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# **National Minimum Dataset (Hospital Inpatient Events)**

#### **Purpose**

The NMDS is used for policy formation, performance monitoring, research, and review. It provides statistical information, reports, and analyses about the trends in the delivery of hospital inpatient and day patient health services both nationally and on a provider basis. It is also used for funding purposes.

#### Content

The NMDS is a national collection of public and private hospital discharge information, including clinical information, for inpatients and day patients. Unit record data is collected and stored. All records must have a valid NHI number.

Data has been submitted electronically in an agreed format by public hospitals since 1993.

The private hospital discharge information for publicly funded events, eg, birth events and geriatric care, has been collected since 1997. Other data is being added as it becomes available electronically.

#### Start date

The current NMDS was introduced in 1999. The original NMDS was implemented in 1993 and back-loaded with public hospital discharge information from 1988.

#### Guide for use

The NMDS has undergone many changes over the years. Some data subsets have been removed and are now held in separate collections (Cancer Register and the Mortality Collection). In other cases, additional fields have been included and events are reported in more detail than in the past. For further details refer to the NMDS Data Dictionary.

Private hospital information is also stored in the NMDS. Publicly funded events (primarily maternity and geriatric) and surgical events from some hospitals are up-to-date. Privately funded events may be delayed.

#### Contact information

For further information about this collection or to request specific datasets or reports, contact the NZHIS Analytical Services team on

- Phone: (04) 816 2893 Fax: (04) 816 2898,or e-mail data-enquiries@moh.govt.nz
- Collection methods

Data is provided by public and the larger private hospitals in an agreed electronic file format. Paper forms and a cut-down electronic file format are also forwarded by other private hospitals.

#### Frequency of updates

Publicly funded hospital events are required to be loaded into the NMDS within 21 days after the month of discharge. Electronic files are received and processed almost every day at NZHIS.

NZHIS has a team of staff who manually process private hospital electronic and paper reports.

#### Security of data

The NMDS is accessed by authorised NZHIS staff for maintenance, data quality, audit and analytical purposes.

Authorised members of the Ministry of Health and DHBs have access to the NMDS for analytical purposes, via the Business Objects reporting tool and the secure Health Information Network. Business Objects contains a subset of the data described in the Data Dictionary.

#### Privacy issues

The Ministry of Health is required to ensure that the release of information recognises any legislation related to the privacy of health information, in particular the Official Information Act 1982, the Privacy Act 1993 and the Health Information Privacy Code 1994.

Information available to the general public is of a statistical and nonidentifiable nature. Researchers requiring identifiable data will usually need approval from an approved Ethics Committee.

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National reports and publications

NZHIS publishes an annual report Selected Morbidity Data for Publicly Funded Hospitals in hard copy and on the Ministry web site <a href="http://www.health.govt.nz">http://www.health.govt.nz</a>.. This publication contains summary NMDS information for a financial year.

#### Data provision

Customised datasets or summary reports are available on request, either electronically or on paper. Staff from the NZHIS Analytical Services team can help to define the specifications for a request and are familiar with the strengths and weaknesses of the data. New fields have been added to the collection since 1988, but wherever possible consistent time-series data will be provided.

The NZHIS Analytical Services team also offers a peer review service to ensure that NZHIS data is reported appropriately when published by other organisations.

There may be charges associated with data extracts.

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# **NMD Admission Source table**

Table name dim\_admission\_source

**Definition** The dim\_admission\_source dimension holds values for the admission

source of the Health Care User.

Primary key dim\_admission\_source\_key

Business key admission\_source\_code

Guide for use

Relational rules

Data content

#### Admission source code

**Definition** A code used to describe the nature of admission (routine or transfer) for

a hospital inpatient health event.

 Column name
 admission\_source\_code

 Table name
 dim\_admission\_source

Data type char(1)

Other names

**Context** Hospital inpatient or day patient health event.

Layout A

**Data domain** R Routine admission

Transfer from another hospital facility

Guide for use Patients admitted from rest homes where the rest home is their usual

place of residence are routine admissions, not transfers.

Patients transferred using DW or DF event end type codes within the same facility should be readmitted with an admission source code of R.

Verification rules Must be a valid code in the Admission Source code table.

**Collection methods** 

Related data Admission Source code.

Source document

Source organisation National Data Policy Group

# Admission source description

**Definition** Description of the admission source i.e. R = Routine Admission, T =

Transferred from another facility.

Column name admission\_source\_description

Table name dim\_admission\_source

Data type varchar2(70)

Other names

Context

Layout

Data domain Free text short description field

Guide for use See Admission Source code in this table for further information.

Verification rules

**Collection methods** 

Related data admission\_source\_code

Source document

# **NMD Admission Type table**

Table namedim\_admission\_type

**Definition** This table holds the values associated with the admission type for the

health care event.

Primary key dim\_admission\_type\_key

Business key admission type

**Guide for use** See admission type for a list of valid associated values.

Relational rules

Data content

# Admission type

**Definition** A code used to describe the type of admission for a hospital healthcare

health event.

Column name admission type

Table name dim\_admission\_type

Data type varchar2(2)

Other names Admission type

**Context** Hospital inpatient or day patient health event. Used in the NMDS.

**Layout** AA

Data domain

Guide for use From 30 June 2004 Admission Types ZA, ZC, ZP and ZW were retired

and ACC cases should be identified by use of the Accident Flag.

As from July 01 2004, use of the retired codes will generate an error

message.

**CURRENT** 

'AA' = Arranged admission

'AC' = Acute admission

'AP' = Elective admission of a privately funded patient

'RL' = Psychiatric patient returned from leave of more than 10 days

'WN' = Admitted from DHB booking system (used to be known as 'waiting list')

#### **RETIRED**

'ZA' = Arranged admission, ACC covered (retired 30 June 2004)

'ZC' = Acute, ACC covered (retired 30 June 2004)

'ZP' = Private, ACC covered (retired 30 June 2004)

'ZW' = Waiting list, ACC covered (retired 30 June 2004)

AA - Arranged admission is a planned admission where:

- the admission date is less than seven days after the date the decision was made by the specialist that this admission was necessary, or
- the admission relates to normal obstetric cases, 36 to 42 weeks' gestation, delivered during the event. In these cases, patients will have been booked into the admitting facility and the health specialty code for records where the date portion of Event End Date is before 1 July 2008 will always be P10 Delivery Services (Mothers). For records where the date portion of Event End Datetime is on or after 1 July 2008 the health specialty code will always be P60 Maternity Services-Mother (no community LMC) or P70 Maternity Services-Mother (with community LMC).

AC - ACUTE ADMISSION (introduced in 1994)

An unplanned admission on the day of presentation at the admitting healthcare facility. Admission may have been from the Emergency or Outpatient Departments of the healthcare facility or a transfer from another facility. Note that the Accident Insurance Act defines Acute as Acute plus Arranged.

AP - ELECTIVE (introduced in 1996)

Elective admission of a privately funded patient in either a public or private hospital.

RL - PSYCHIATRIC PATIENT RETURNED FROM LEAVE (introduced in 1994)

A sectioned mental health patient, returning from more than 14 days leave.

WN - WAITING LIST/BOOKING LIST (introduced in 1994)

A planned admission where the admission date is seven or more days after the date the decision was made by the specialist that this admission was necessary.

Verification rules

**Collection methods** 

Related data

Source document

# Admission type description

**Definition** Description of the admission type for the health care user event e.g. AA

= Arranged Admission, WN = Admitted from waiting list - Normal,

Column name admission\_type\_description

Table name dim\_admission\_type

Data type varchar2(70)

Other names

Context

Layout

Data domain Free text short description field

**Guide for use** See Admission Type code in this table for further information.

See Admission Type code table: http://www.health.govt.nz/nz-health-

statistics/data-references/code-tables/common-code-tables

Verification rules

**Collection methods** 

Related data Admission Type code

Source document

# Admission type end date

**Definition** The end date of the patients admission for this type.

Column name admission\_type\_end\_date

Table name dim\_admission\_type

Data type date

Other names

Context

Layout Oracle date/time field

Data domain

Guide for use

Verification rules

**Collection methods** 

Related data Admission Type code, Admission Type description.

Source document

# Admission type start date

**Definition** The start date of the patients admission for this type.

Column name admission\_type\_start\_date

Table name dim\_admission\_type

Data type date

Other names

Context

Layout Oracle date/time field

Data domain

Guide for use

Verification rules

**Collection methods** 

Related data Admission Type code, Admission Type description.

Source document

# **NMD Condition Onset Flag Required From Table**

dim\_nmd\_fac\_cond\_onset\_rqd\_dte Table name

Definition Date when the facility implements the Condition Onset Flag in its

Patient Management System (PMS) and reports to the NMDS.

Primary key

Business key

Condition Onset Flag (COF) implementation date is 1 July 2012. Guide for use

Facilities are required to notify MOH of the date from which they can

supply COF values.

Facilities may apply to be exempted from reporting COF in NMDS file version V015.0; however they will need to provide a date when they are likely to implement COF. Some facilities have indicated they are unable to implement COF due to their Patient Management System upgrade

The COF implementation dates will be maintained within the NMDS facility table. This table can be found on the following link under the heading NMDS Facility Code Table.

http://www.health.govt.nz/nz-health-statistics/data-references/code-

tables/common-code-tables

If facilities require further exemption from the date provided apply to Data Management Services, National Collections and Reporting, email

compliance@moh.govt.nz

Relational rules

Data content

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## Facility code

**Definition** A code that uniquely identifies a healthcare facility.

Column name facility code

Table name dim\_nmd\_fac\_cond\_onset\_rqd\_dte

Data type varchar(64)

Other names Health agency facility code, Hospital, HAF code, HAFC

Context

Layout

Data domain See the Facility code table on the Ministry of Health web site at

http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables. For further information or a printed copy of

the code table, contact Analytical Services.

Guide for use A healthcare facility is a place, which may be a permanent, temporary,

or mobile structure that healthcare users attend or are resident in for the primary purpose of receiving healthcare or disability support services. This definition excludes supervised hostels, halfway houses, staff residences, and rest homes where the rest home is the patient's usual

place of residence.

See Appendix: Duplicate and Overlapping Event Checking rules.

Verification rules Must be a valid code in the Facility code table.

The NHI number, Event type code, Event start datetime, Facility code, and Event local identifier form a unique key for checking for duplicates

on insert, or checking for existence on delete.

Collection methods The Ministry of Health allocates codes on request. The code table is

continually updated by the Ministry as hospitals open and close. See

the Ministry web site for the most recent version.

Related data Birth location

Facility type

Source document

Source organisation Ministry of Health

# Facility id

Definition

Column name facility\_id

Table namedim\_nmd\_fac\_cond\_onset\_rqd\_dte

Data type varchar(64)

Other names

Context

Layout

Data domain

Guide for use

Verification rules

**Collection methods** 

Related data

Source document

# NMD condition onset required date from

Definition

Column name nmd\_fac\_cond\_onset\_rqd\_frm\_dte

Table name dim\_nmd\_fac\_cond\_onset\_rqd\_dte

Data type date

Other names

Context

Layout

Data domain

Guide for use Condition Onset Flag (COF) implementation date is 1 July 2012.

Facilities are required to notify MOH of the date from which they can

supply COF values.

Facilities may apply to be exempted from reporting COF in NMDS file version V015.0; however they will need to provide a date when they are likely to implement COF. Some facilities have indicated they are unable to implement COF due to their Patient Management System upgrade cycle.

The COF implementation dates will be maintained within the NMDS facility table. This table can be found on the following link under the

heading NMDS Facility Code Table.

http://www.health.govt.nz/nz-health-statistics/data-references/code-

tables/common-code-tables

If facilities require further exemption from the date provided apply to Data Management Services, National Collections and Reporting, email

compliance@moh.govt.nz

Verification rules

**Collection methods** 

Related data

Source document

# **NMD Fact Diagnosis Procedure Table**

Table name fact\_nmd\_diagnosis\_procedure

**Definition** Details relating to diagnoses and procedures associated with a health

event.

Primary key

Business key event id

Guide for use

Contains clinical information about the reason for admission to hospital, procedures carried out while in hospital, and incidental or concurrent diseases that were a factor in the treatment.

Also contains information about accidents that caused health events or occurred during a health event, including adverse reactions.

Diagnoses and procedures are held in multiple versions of the International Classification of Diseases. All events:

- are stored in ICD-9-CM-A
- with an Event end datetime on or after 1 July 1999 are stored in ICD-9-CM-A and ICD-10-AM 1st Edition
- with an Event end datetime on or after 1 July 2001 are stored in ICD-9-CM-A, ICD-10-AM 1st Edition, and ICD-10-AM 2nd Edition
- with an Event end datetime on or after 1 July 2004 are stored in ICD-9-CM-A, ICD-10-AM 1st Edition, ICD-10-AM 2nd Edition- and ICD-10-AM 3rd Edition
- with an Event end datetime on or after 1 July 2008 are stored in ICD-9-CM-A, ICD-10-AM 1st Edition, ICD-10-AM 2nd Edition, ICD-10-AM 3rd Edition and ICD-10-AM 6th Edition
- with an Event end datetime on or after 1 July 2014 are stored in ICD-9-CM-A, ICD-10-AM 1st Edition, ICD-10-AM 2nd Edition, ICD-10-AM 3rd Edition, ICD-10-AM 6th Edition and ICD-10-AM 8th Edition.

See Clinical code type for more information.

The selection of codes are based on the guidelines provided in The Australian Coding Standards (ACS.

The principal diagnosis (refer to ACS 0001 vol 5 p2) is defined as the diagnosis established after study to be chiefly responsible for causing the patient's episode of care in hospital (or attendance at the healthcare facility). The phrase 'after study' in the definition means evaluation of findings to establish the condition that was chiefly responsible for the episode of care. Findings evaluated may include information gained from the history of illness, any mental status evaluation, specialist consultations, physical examination, diagnostic tests or procedures, any surgical procedures, and any pathological or radiological examination.

The condition established after study may or may not confirm the admitting diagnosis.

Additional diagnosis (refer to ACS 0002 vol 5 p5) is defined as a condition or complaint either co-existing with the principal diagnosis or arising during the episode of care or attendance at a healthcare facility.

For coding purposes, additional diagnoses should be interpreted as conditions that affect patient management in terms of requiring any of the following:

- therapeutic treatment
- diagnostic procedures
- increased clinical care and/or monitoring.

Coding procedures carried out in Emergency Department (ED) before admission:

If the patient is admitted as an ED short stay (three hours or more) or is admitted to an inpatient ward, the time spent and the treatment carried

Version 7.8 MoH 22 February 2016 out in ED are included in the short stay/inpatient event. Procedures carried out in ED meeting the criteria for clinical coding are to be coded on the relevant short stay/inpatient event record.

All hours on mechanical ventilation in ED are to be included in the calculation of total hours on mechanical ventilation and have a procedure code assigned, whether the patient is intubated in ED or in the ambulance. If ventilation is commenced in the ambulance, it is counted only from the time of hospitalisation.

.

The structure of this table has been significantly changed from 1 July 2004.

- Prior to this change, the structure held each submitted diagnosis record received from a provider in the same row in the table as any records mapped to other clinical coding classifications. This necessitated the existence of sets of columns specifically for the ICD9, ICD10v1 and ICD10v2 clinical code classifications and the ongoing need to add additional sets of columns each time a new clinical coding classification is to be implemented.
- From 1July 2004, only one level of clinical code classification will be held per row in the table. Each new 'submitted' record will be loaded into a new row in the table, then a new row will be created for each record produced by mapping to another clinical coding classification version. These groups of rows are linked by common event id and diagnosis sequence values. The original submitted record is identified by the submitted system id value.
- Note: The new database structure

Relational rules

Refer to Guide for Use above

Data content

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## Batch id

**Definition** A unique identifier for each batch.

Column name batch\_id

Table name fact\_nmd\_diagnosis\_procedure

Data type integer

Other names

Context

Layout

Data domain

Guide for use Generated by the load process. Used internally for reference to the file

in which this record was loaded into the NMDS.

The Batch ID is used in place of the batch filename.

Verification rules

**Collection methods** 

Related data

Source document

#### Clinical code

**Definition** A code used to classify the clinical description of a condition.

Column name clinical\_code

**Table name** fact\_nmd\_diagnosis\_procedure

**Data type** varchar2(8)

Other names Diagnosis/procedure code

**Context** Clinical information within a health event.

Includes codes for diagnosis, injury, cause of intentional and

unintentional injury, and procedure performed.

Layout

Data domain Must be a valid code in one of the clinical coding systems mentioned

below.

Guide for use

Clinical coding systems:

- ICD-9-CM-A 2nd Edition - Australian Version of The International Classification of Diseases, 9th Revision, Clinical Modification, 2nd Edition

- ICD-10-AM 1st Edition - The International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification, 1st Edition

 ICD-10-AM 2nd Edition - The International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification, 2nd Edition

- ICD-10-AM 3rd Edition - The International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification, 3rd Edition

- ICD-10-AM 6th Edition - The International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification. 6th Edition

- ICD-10-AM 8th Edition - The International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification, 8th Edition

Depending on the context, this is also known as Diagnosis/procedure code (external cause).

From 1 July 1995, this field contains the Clinical code as supplied by the provider.

ICD-9-CM (TO 30 JUNE 1995)

In ICD-9-CM all codes have at least 3 digits and most have 4 or 5. Standard practice was to use a filler 4th digit of '9' for codes with only 3 digits and for codes which have a 5th digit but no 4th digit.

ICD-9-CM-A (1 JULY 1995 ONWARDS)

In 1995 codes were mapped to ICD-9-CM-A, and the place of occurrence, which had been separate, was mapped onto the 5th digit of the E code.

Also, codes that only had 3 digits no longer required a filler digit: the fields for 4th and 5th digits could be left blank. ICD-9-CM-A codes which had a 5th digit but no 4th digit could have a filler 4th digit of '0' (zero) entered.

E codes were mandatory for codes between 800 and 999. The location field and code E849 were not used. Instead, the digit to indicate place of occurrence of external cause of injury was recorded as the 5th digit for the following ranges of 4 digit 'E' codes: E810-E829, E846-E848,

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E850-E869, E880-E928, E950-E958, E960-E968, E980-E988.

#### ICD-10-AM 1ST EDITION (1 JULY 1999 ONWARDS)

In ICD-10-AM, codes V01 to Y98 were used to classify environmental events and circumstances as the external cause of injury, poisoning and other adverse effects. (It was intended that the nature of the condition would be indicated separately using the appropriate code, usually codes between S00 and T98.)

#### 1. Place of Occurrence Code

The following 4th-character subdivisions of the external cause code were used with categories W00 to Y34 (except Y06 and Y07) to identify where the external cause occurred:

- 0 = home
- 1 = residential institution
- 2 = school, other institution, and public administrative area
- 3 = sports and athletics area
- 4 = street and highway
- 5 = trade and service area
- 6 = industrial and construction area
- 7 = farm
- 8 = other specified places
- 9 = unspecified place

#### 2. Activity Code

The following 5th-character subdivision of the external cause code was used with categories V01 to Y34 to indicate the activity of the injured person at the time the event occurred. (This sub classification was used in addition to the 4th-character subdivisions indicating place of occurrence of events classifiable to W00-Y34.)

- 0 = while engaged in sports activity
- 1 = while engaged in leisure activity
- 2 = while working for income
- 3 = while engaged in other types of work
- 4 = while resting, sleeping, eating or engaging in other vital activities
- 8 = while engaged in other specified activities
- 9 = during unspecified activity
- 3. Example of the external cause code, place of occurrence and activity

Diagnosis type allocated by provider system - Description - ICD-10-AM code

A - # L shaft tibia and fibula, closed - S82.21

B - Laceration L elbow - S51.0

B - Contusion scalp - S00.05

O - Closed reduction of # tibia and fibula - 47564-00

E - Tripped over hose while gardening at home - W01.03\*

\* The 4th character represents 'home' as place of occurrence; the 5th character represents 'gardening' as activity.

Verification rules Must form part of a valid combination of Clinical code, Clinical code

type, and Clinical coding system ID.

Collection methods

Related data Diagnosis/procedure description

Clinical coding system ID Clinical code type Diagnosis type

Source document Refer to the Official NCCH Australian Version of ICD-9-CM-A, Second

Edition, Volumes 1 to 4, and the International Classification of Diseases

for Oncology (ICD-O) Version 2.

For ICD-10-AM, refer to ICD-10-AM, the International Statistical

Classification

Source organisation

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## Clinical code system

**Definition** A code identifying the clinical coding system used for diagnoses and

procedures.

Column name clinical\_code\_system

**Table name** fact\_nmd\_diagnosis\_procedure

Data type varchar2(2)

Other names

Context Clinical information.

Layout NN

Data domain 01 ICD-9

02 ICD-9-CM03 Read04 ICPC

05 Old AMR codes06 ICD-9-CM-A

DSM IV (for MHINC only)
ICD-10-AM 1st Edition
ICD-10-AM 2nd Edition
ICD-10-AM 3rd Edition
ICD-10-AM 6th Edition
ICD -10-AM 8th Edition

Guide for use

Previously known as Diagnosis coding system code.

Code '03' (Read) is used for primary care and not reported in the NMDS.

Code '02' (ICD-9-CM) was used between 1988 and 1995. When code '06' (ICD-9-CM-A) was introduced, the database was mapped to this new code. From July 1999 data was submitted in either ICD-9-CM-A or ICD-10-AM 1st Edition, and mapped so that it was held in both systems. Data for code '02' no longer exists in the database.

Between 1 July 2001 and 30 June 2004, data was submitted in '11' (ICD-10-AM 2nd Edition) and mapped to ICD-9-CM-A and '10' (ICD-10-AM 1st Edition). All records in '10' continue to be mapped back to earlier classification versions where mappings exist.

From 1 July 2004 data is submitted in '12' (ICD-10-AM 3rd Edition) and mapped to '11' (ICD-10-AM 2rd Edition). Mappings from '11' to '10' and '10' or earlier classifications continues to be performed, where mappings exist.

From 1 July 2008 data is submitted in '13' (ICD-10-AM 6th Edition) and mapped to '12' (ICD-10-AM 3rd Edition). Mappings from '12' to '10' and '10' or earlier classifications continue to be performed, where mappings exist

From 1 July 2014 data is submitted in '14' (ICD-10-AM 8th Edition) and mapped to '13' (ICD-10-AM 6th Edition). Mappings from '13' to '10' and '10' or earlier classifications continue to be performed, where mappings exist.

Verification rules Must be a valid code in the Clinical Coding System code table.

Must form part of a valid combination of Clinical code, Clinical code type, and Clinical coding system ID.

**Collection methods** From 1 July 2014 data should be submitted using ICD-10-AM 8th Edition, that is, the Clinical coding system ID should be '14'.

Version 7.8 MoH 28 February 2016 NMD Data Mart Data Dictionary

NMD Fact Diagnosis Procedure Table

Related data Diagnosis type

Diagnosis type
Clinical code type
Clinical code

Source document

**Encoding software** 

Source organisation

Ministry of Health

# Clinical code type

**Definition** A code denoting which section of the clinical code table the clinical code

falls within.

Column name clinical\_code\_type

**Table name** fact\_nmd\_diagnosis\_procedure

Data type char(1)

Other names

**Context** Clinical information.

Layout A

**Data domain** 'A' = Diagnosis

'B' = Injury 'D' = DSM-IV

'E' = External cause of injury 'M' = Morphology (pathology) 'O' = Operation/procedure

'V' = Supplementary classification/health factors

Guide for use Previously known as Clinical code table type.

This field is required to differentiate between different sections of the clinical code table. In ICD-9-CM-A code values could be repeated in different sections of the table. For example, '0101' is a diagnosis code

as well as a procedure code.

Note: M- Morphology (pathology) is historical and originally used for cancer diagnosis which has since been replaced with the introduction of

the Cancer Registry data mart.

Verification rules Must be a valid code in the Clinical Code Type code table.

Must form part of a valid combination of Clinical code, Clinical code

type, and Clinical coding system ID.

Collection methods

Related data Clinical coding system ID

Diagnosis type Clinical code

Source document

### Condition onset code

**Definition** The condition\_onset\_code is a means of differentiating between those

conditions which arise during an admission from those that were

present at the time of admission.

Column name condition\_onset\_code

Table name fact\_nmd\_diagnosis\_procedure

Data type varchar2(1)

Other names

Context

Layout

Data domain 1 - condition with onset during episode of admitted patient care

2 - condition not noted as arising during the episode of care/unknown

9 - not reported (only for exempt facilities)

Guide for use Condition Onset Flag will be included on all mappings of clinical code

systems, eg 12=ICD-10-AM-10 Ed 3, 13=ICD-AM-10 Ed 6, 14=ICD-10-

AM Ed 8 etc.

Condition Onset Flag must be reported on diagnosis records (HD) with a clinical code type = A (diagnosis), B (injury), V (supplementary), E (external cause) or M (morphology). On all other diagnosis records (HD) with clinical code type O (Procedure) the COF field will be null. (note:

Clinical Code Type = D (DSM-IV) are not reported to NMDS). Some facilities may be exempt from the July 1 2012 implementation and will need to implement at a later date. A reference table of facilities

and their COF implementation dates will be maintained.

Each facility will have a Condition Onset Flag implementation date. For an event reported with an event end date less than the Condition Onset Flag implementation date the Condition Onset Flag may be 1, 2 or 9. This will allow events prior to implementation to be sent/resent

either coded appropriately or as unreported.

For an event with an event end date greater than or equal to the Condition Onset Flag implementation date the Condition Onset Flag

may be 1 or 2.

Where the event end date is not submitted the event start date will be used for the validation. Principal diagnosis should have a condition

onset flag value of 2 (onset before the episode of care)

Verification rules Condition Onset Flag will be reported in the new file version V015.0

Collection methods

Related data

Source document

# Diagnosis description

**Definition** A free-text description of the diagnoses, injuries, external causes, and

procedures performed. This should not be the standard description

associated with the clinical code.

Column name diagnosis\_description

Table name fact\_nmd\_diagnosis\_procedure

Data type varchar2(100)

Other names Event diagnosis/procedure description

**Context** Clinical information.

**Layout** Free text

Data domain

Guide for use Depending on the context, this is also known as Diagnosis description

(external cause), Accident description, Operation description, and

Morphology description.

It is recommended that free text be used for this field, as this aids the research process and assists with the quality audit of data sent to the NMDS. Free text should always be used with external cause codes.

Providers often automate this field using encoding programmes. This greatly detracts from the value of the data.

Agencies are encouraged to provide this information, particularly the description of the circumstances surrounding an injury, as it is used extensively in injury-prevention research. The Event supplementary information field may be used to expand the description.

The standard descriptions sent to the Ministry of Health by hospitals are only 50 characters long, and often are the expanded description truncated at 50 characters. Many of these abbreviated descriptions are not specific, so their usefulness for research is limited. Your assistance is sought to report fully on the diagnosis, procedure, or circumstances of the injury in the Event supplementary information field.

Verification rules

Collection methods

Related data Diagnosis type

Clinical code

Source document

# Diagnosis sequence

**Definition** A sequencing number for clinical codes derived from the diagnosis

number as part of the mapping process.

Column name diagnosis\_sequence

Table name fact\_nmd\_diagnosis\_procedure

Data type number(5)

Other names

Context

Layout

**Data domain** 010 - 999

Guide for use When mapping diagnoses from one clinical coding system to another,

the Diagnosis number is mapped to the Diagnosis sequence so that the order can be retained for many to one and one to many mappings. For example, if the original Diagnosis numbers were 1, 2, 3, 4, and diagnosis 2 mapped to 3 separate codes in the new clinical coding system, the Diagnosis sequence numbers would be 10, 20, 21, 22, 30,

40.

Verification rules

**Collection methods** 

Related data Diagnosis number

Source document

# Diagnosis number

**Definition** Sequential number for each clinical code in each event record to assist

in unique identification.

Column name diagnosis\_number

Table name fact\_nmd\_diagnosis\_procedure

Data type integer

Other names Event diagnosis/procedure number

Context

Layout

Data domain 01 - 99

**Guide for use** This is the number hospitals send in for their ordering of diagnoses.

When the NMDS began mapping between different classification versions (eg, ICD-9-CM to ICD-10-AM) multiple mappings were

sometimes required for single codes. The Diagnosis sequence field was introduced, which is derived from this field but allows multiple mappings

to be accommodated.

Verification rules

Collection methods Up to 99 clinical codes may be provided with each event.

Related data

Used to calculate Diagnosis sequence

Source document

## Diagnosis type

**Definition** A code that groups clinical codes, or indicates the priority of a

diagnosis.

Column name diagnosis\_type

**Table name** fact\_nmd\_diagnosis\_procedure

Data type char(1)

Other names Diagnosis type code

**Context** Clinical information within a health event.

Layout

**Data domain** A Principal diagnosis

B Other relevant diagnosis
E External cause of injury
M Pathological nature of growth

O Operation/procedure

P Mental health provisional diagnosis (MHINC only)

Guide for use

Only codes 'A', 'B', 'E', 'M', 'O' and 'P' are found in the NMDS database.

It is expected that the codes will be allocated by provider systems at the time of sending data to the national system.

Up to 99 diagnosis/procedure codes may be provided. Every record must have one (and only one) clinical code type \'A' principal diagnosis and may have up to a further 98 diagnosis/procedure/ external cause/morphology codes which accompany the appropriate clinical

code type.

The principal diagnosis (refer to ACS 0001 vol 5 p2) is defined as the diagnosis established after study to be chiefly responsible for causing the patient's episode of care in hospital (or attendance at the healthcare facility). The phrase 'after study' in the definition means evaluation of findings to establish the condition that was chiefly responsible for the episode of care. Findings evaluated may include information gained from the history of illness, any mental status evaluation, specialist consultations, physical examination, diagnostic tests or procedures, any surgical procedures, and any pathological or radiological examination. The condition established after study may or may not confirm the admitting diagnosis.

Additional diagnosis (refer to ACS 0002 vol 5 p5) is defined as a condition or complaint either co-existing with the principal diagnosis or arising during the episode of care or attendance at a healthcare facility. For coding purposes, additional diagnoses should be interpreted as conditions that affect patient management in terms of requiring any of the following:

- therapeutic treatment - diagnostic procedures - increased nursing care and/or monitoring.

Validation rules are held in the Event to Diagnosis Type table.

Cardinality and optionality have been added. See Appendix : Enhanced

Event Type/Event Diagnosis Type Table.

Verification rules Must be a valid code in the Diagnosis Type code table. There must be

one and only one type 'A' for each event.

**Collection methods** 

Related data Clinical code

Diagnosis/procedure description Clinical coding system ID Clinical code type

External cause date of occurrence

Source document

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NMD Fact Diagnosis Procedure Table

# Diagnosis type sequence

Definition

Column name diagnosis\_type\_sequence

Table namefact\_nmd\_diagnosis\_procedure

Data type integer

Other names

Context

Layout

Data domain

Guide for use

Verification rules

**Collection methods** 

Related data

Source document

# Dim condition onset code key

**Definition** The dim\_nmd\_cndtn\_onset\_code\_scd surrogate key

Column name dim\_condition\_onset\_code\_key

Table namefact\_nmd\_diagnosis\_procedure

Data type number(38)

Other names

Context

Layout

Data domain

Guide for use

Verification rules

**Collection methods** 

Related data

Source document

## Event end date

**Definition** The date and time on which a healthcare user is discharged from a

facility (i.e. the date and time the heathcare event ended).

Column name event\_end\_date

Table namefact\_nmd\_diagnosis\_procedure

Data type date

Other names

Context

Layout Oracle date/time field

Data domain Valid date and time

Hours in the range 00 to 23 Minutes in the range 00 to 59

Guide for use

Verification rules

**Collection methods** 

Related data

Source document

### Event id

**Definition** An internal reference number that uniquely identifies a health event.

Column name event\_id

Table name fact\_nmd\_diagnosis\_procedure

Data type integer

Other names

**Context** Any event on the NMDS.

Layout

Data domain

Guide for use Serves as the primary key for all data tables. Event ID is assigned by

Ministry of Health on load, so if an event is deleted and then reloaded, a

new Event ID will be assigned.

Unique link between the main tables in the database.

Verification rules Add 1 to the previous maximum number.

**Collection methods** 

Related data

Source document

## Event start datetime

**Definition** The admission date and time on which a healthcare event began.

Column name event\_start\_date

 Table name
 fact\_nmd\_diagnosis\_procedure

Data type date

Other names

Context

Layout

**Data domain** Valid date and time

Hours in the range 00 to 23 Minutes in the range 00 to 59

Guide for use

Verification rules

**Collection methods** 

Related data

Source document

# Private hospital flag

**Definition** Flag to indicate whether the health event was privately funded.

Column name private\_hospital\_flag

Table name fact\_nmd\_diagnosis\_procedure

Data type char(1)

Other names

Context

Layout A

Data domain 'Y' = Yes

'N' = No Null

Guide for use

Verification rules Is 'Y' if:

- Principal health service purchaser is '06' or '19', or

- Principal health service purchaser is '98' or blank and Facility type is

'02'.

**Collection methods** 

Related data Principal health service purchaser

Facility type

Source document

### Procedure ACC date

**Definition** The date when the accident/injury occurred.

Column name procedure\_acc\_date

**Table name** fact\_nmd\_diagnosis\_procedure

Data type date

Other names Accident date, Injury date

**Context** Events resulting from an accident.

Layout CCYYMMDD

Data domain Partial dates are permissible. Incomplete dates are stored as 'ccyy0101'

or 'ccyymm01' and a partial date flag associated with the date is set to

the appropriate value.

Guide for use External cause date of occurrence and Operation/procedure date are

sent in separately but both stored in the same field. If the diagnosis type is 'E' (i.e., external cause event), the date is External cause date of

occurrence.

Verification rules Optional.

Collection methods This field is optional for ICD-10-AM 2nd Edition (and onwards) place of

occurrence codes (Y92.x) and activity codes (Y93.x).

Related data Diagnosis type

Accident date flag

Source document

# Procedure ACC date flag

**Definition** Indicates whether the External cause date of occurrence stored is a

partial date.

Column name procedure\_acc\_date\_flag

Table name fact\_nmd\_diagnosis\_procedure

Data type char(1)

Other names

Context Events resulting from an accident.

Layout

Data domain D where the day portion of the date is missing, default to '01'

M where both day and month portions of the date are missing, default

to '01/01'

Guide for use A partial date flag, set automatically.

As the system allows partial dates to be entered, this identifies what

field(s) are missing if a partial date is entered.

For example, if a date is entered as '00/00/2005', then the date is stored

as '01/01/2005' and the partial indicator would be set to 'M'.

Verification rules

**Collection methods** 

Related data External cause date of occurrence

Source document

# Submitted system id

**Definition** The clinical coding system ID used by the provider when submitting

their diagnosis record.

Column name submitted\_system\_id

Table name fact\_nmd\_diagnosis\_procedure

Data type varchar2(2)

Other names

Context

Layout

Data domain Refer 'Clinical coding system ID'

Guide for use This field identifies the system ID used on a diagnosis record submitted

by the health provider.

This value is repeated onto each diagnosis record that is mapped to another clinical code classification from the submitted record. This enables the source (submitted) record and system ID level to be

identified.

Verification rules

**Collection methods** 

Related data

Source document

Source organisation Ministry of Health

## Transaction id

**Definition** A sequential number within the batch. With the Batch ID, this forms a

unique identifier for each transaction.

Column name transaction\_id

 Table name
 fact\_nmd\_diagnosis\_procedure

Data type integer

Other names

Context

Layout

Data domain

Guide for use Generated by the load process. Used internally for reference.

Verification rules

**Collection methods** 

Related data

Source document

## **NMD Fact Event Legal Status table**

Table name fact\_nmd\_event\_legal\_status

**Definition** The legal status of a healthcare user.

See Guide for Use.

Primary key

Business key event\_id, legal\_status\_code

Guide for use The legal status of a healthcare user under the appropriate section of

the Mental Health (Compulsory Assessment and Treatment) Act 1992, the Alcoholism and Drug Addiction Act 1966, the Intellectual Disability (Compulsory Care and Rehabilitation) Act 2003, or the Criminal

Procedure (Mentally Impaired Persons) Act 2003.

Links to the Fact NMD Health Event table through Event ID.

Reported in accordance with the relevant Act.

Legal status must be supplied for inpatient mental health events. The reporting timeframe for this information is 21 days post month of admission.

The definition of a mental health patient is 'a patient who has a mental illness diagnosis'. Patients with an intellectual disability are no longer regarded as mental health patients. Mental health inpatient and day patient events are to be reported with the relevant health specialty codes.

With the introduction of the Mental Health (Compulsory Assessment and Treatment) Act 1992 on 1 November 1992, it became possible for mental health patients, both informal (i.e., voluntary) and formal, to be admitted to a general ward of any public hospital or psychiatric hospital. When a mental health patient is admitted to a general ward for treatment of a psychiatric illness, then the event type code of IP can now be used. An event type code of ID can be used for day patients. A legal status code and leave details must also be supplied for these patients if relevant. The default for legal status is 'I' (Voluntary).

All changes to legal status made during the course of an inpatient event must be reported to Ministry of Health.

Admission information for mental health inpatients is required to be supplied with legal status and provisional diagnoses. It is a requirement to update leave/discharge data, legal status and principal diagnosis as they are obtained. Those facilities with electronic transfer should update legal status changes immediately they occur.

This table only contains legal statuses pertaining to inpatient and day patient events. For more complete legal status histories, see the Mental Health Information National Collection.

Relational rules

Data content

## Batch id

**Definition** A unique identifier for each batch.

Column name batch\_id

Table namefact\_nmd\_event\_legal\_status

Data type integer

Other names

Context

Layout

Data domain

Guide for use Generated by the load process. Used internally for reference to the file

in which this record was loaded into the NMDS.

The Batch ID is used in place of the batch filename.

Verification rules

**Collection methods** 

Related data

Source document

## Event id

**Definition** An internal reference number that uniquely identifies a health event.

Column name event\_id

Table name fact\_nmd\_event\_legal\_status

Data type integer

Other names

**Context** Any event on the NMDS.

Layout

Data domain

Guide for use Serves as the primary key for all data tables. Event ID is assigned by

Ministry of Health on load, so if an event is deleted and then reloaded, a

new Event ID will be assigned.

Unique link between the main tables in the database.

Verification rules Add 1 to the previous maximum number.

**Collection methods** 

Related data

Source document

## Legal status code

**Definition** Code describing a healthcare user's legal status under the appropriate

section of any of a number of Acts (see Guide for Use).

Column name legal\_status\_code

Table name fact\_nmd\_event\_legal\_status

Data type varchar2(2)

Other names

Context Used for mental health healthcare users in respect of the current period

of institutional care.

Defines a healthcare user's standing in terms of the Mental Health (Compulsory Assessment & Treatment) Act 1992, for example,

compulsory treatment.

Layout AA (or A and a space)

**Data domain** See the Legal Status code table on the Ministry of Health web site at

http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables. For further information or a printed copy of

the code table, contact Analytical Services.

Guide for use - Mental Health (Compulsory Assessment and Treatment) Act 1992

- Alcoholism and Drug Addiction Act 1966

- Intellectual Disability (Compulsory Care and Rehabilitation) Act 2003

- Criminal Procedure (Mentally Impaired Persons) Act 2003.

Used only in the context of mental health admissions.

**Verification rules** At least one required for psychiatric inpatient events.

Collection methods A Legal status code is required for each Legal status date provided.

Related data DRG code

Legal status date

Source document

## Legal status date

Definition The date from which a healthcare user's legal status applies.

Column name legal\_status\_date

Table name fact\_nmd\_event\_legal\_status

Data type date

Other names Health event legal status date

Context Defines a healthcare user's standing under the appropriate section of

the Mental Health (Compulsory Assessment & Treatment), for example,

compulsory treatment.

Layout **CCYYMMDD** 

Data domain Valid dates

Guide for use Only used in the context of mental health admissions.

From 1 July 1999 legal status can be reported with ID and IP events as

well as IM event types.

More than one legal status can be entered for a health event, but the Legal status code and the Legal status date must form a unique

combination for that health event.

Legal status can be reported outside of the period of an event. If this is done, all Legal status codes for the event will be taken into account when determining the DRG code. Any non-voluntary Legal status code

changes the DRG version 4.1, 4.2, 5.0, 6.0 or 6.0x code.

Verification rules Partial dates not allowed.

At least one required for psychiatric inpatient events.

**Collection methods** A Legal status date is required for each Legal status code supplied.

Related data DRG code

Legal status code

Source document

# Private hospital flag

**Definition** Flag to indicate whether the health event was privately funded.

Column name private\_hospital\_flag

Table name fact\_nmd\_event\_legal\_status

Data type char(1)

Other names

Context

Layout A

Data domain 'Y' = Yes

'N' = No Null

Guide for use

Verification rules Is 'Y' if:

- Principal health service purchaser is '06' or '19', or

- Principal health service purchaser is '98' or blank and Facility type is

'02'.

**Collection methods** 

Related data Principal health service purchaser

Facility type

Source document

## Transaction id

Definition

Column name transaction\_id

Table namefact\_nmd\_event\_legal\_status

Data type integer

Other names

Context

Layout

Data domain

Guide for use

Verification rules

**Collection methods** 

Related data

Source document

## **NMD Fact Health Event table**

fact nmd health event Table name

Definition Contains data for inpatient and day patient health events - non-

> diagnostic information about a patient's stay in hospital, such as demographic, administrative, and some summarised/grouped clinical

and contracting information.

Primary key

Business key

Guide for use A hospital inpatient event is a contact between a healthcare user and

an agency which involves the healthcare user being admitted and

discharged.

NMDS contains secondary care events (that is, hospital inpatient and day-patient events), and some ambulatory care events. NMDS also incorporates events from psychiatric hospitals, and some private

hospital events since 1996.

Fields have been added to the Health Event table at various times as a

result of policy or contracting requirements.

#### **RELATIONAL RULES**

KEY: LINKED TO:

Dim admission age key dim\_admission\_age

(dim\_global\_time)

Dim admission type key dim\_admission\_type Dim admission source key dim admission source

Dim affiliation key dim affiliation Dim agency facility key dim\_agency\_facility

Dim birth date key dim\_birth\_date (dim\_global\_time)

Dim country key dim\_country Dim discharge age key dim\_dischared\_age

(dim age band) Dim DRG key dim\_drg Dim DRG V31 key dim\_drg\_v31 Dim event agency key dim\_event\_agency Dim event end date key dim\_event\_end\_date

(dim\_global\_time)

Dim event end type key dim\_event\_type

Dim event facility transfer from key dim\_facility\_transfer\_from

(dim\_agency\_facility)

Dim event facility transfer to key dim\_facility\_transfer\_to

(dim\_agency\_facility)

Dim event start date key dim\_event\_start\_date

(dim\_global\_time)

Dim event type key dim event type

Dim excluded purchase unit key dim\_exclu\_purchase\_unit

(dim\_purchase\_unit)

Dim first consult date key dim\_first\_consult\_date

(dim\_global\_time)

Dim geo key dim\_geo

Dim health care user key dim\_health\_care\_user Dim health specialty key dim health specialty Dim last updated date key dim\_last\_updated\_date Dim mothers age key dim\_mothers\_age

Dim occupation key dim occupation

Dim psych Iv end date key dim\_psych\_leave\_end\_date

(dim\_global\_time)

Dim purchase unit key dim purchase unit Dim purchaser code key dim\_purchaser\_code Dim referral date key dim\_referral\_date

(dim\_global\_time)

Dim surg decided date key dim surgery decided date

Event ID

fact\_nmd\_diagnosis\_procedure

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NMD Data Mart Data Dictionary

NMD Fact Health Event table

Fields have been added to the Health Event table at various times as a

result of policy or contracting requirements.

Relational rules

Refer to Guide for Use above

Data content

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#### ACC claim number

**Definition** This is a separate field to record the M46/45, ACC45 or AITC claim

number for the event.

Column name acc\_claim\_number

Table name fact\_nmd\_health\_event

Data type varchar2(12)

Other names

Context Injury resulting from an accident.

**Layout** Free text

Data domain This is a free-text field to allow historical claim numbers, which come in

a variety of formats, to be provided.

Guide for use This field is used to report the Accident Insurance Treatment Certificate

(AITC) form number.

If the first character of the Principal health service purchaser code is 'A'

(eg, 'A0', 'A1', etc) then the Accident flag should be set to 'Y'.

If the Accident flag is set to 'Y' (for any Principal health service

purchaser code), then the ACC Claim Number field must be populated.

If the ACC claim number field is populated and the injury date is before

the admission date then the accident flag must be set to Y.

If the injury date is between the admission and discharge date (i.e. the

accident happened while the patient was in hospital) then the ACC flag

can be N and the ACC45 field populated.

Verification rules Optional.

**Collection methods** 

Related data Accident flag

Principal health service purchaser

Source document

**Source organisation** Accident Compensation Corporation

## Accident flag

**Definition** A flag that denotes whether a person is receiving care or treatment as

the result of an accident.

Column name accident\_flag

Table name fact\_nmd\_health\_event

Data type char(1)
Other names ACC flag

**Context** Injury resulting from an accident.

Layout A

Data domain Y The health event/treatment is assumed to be or is assessed as

the result of an accident

N The health event/treatment is the result of an illness.

U Unknown.

Guide for use For this accident flag to be 'Y', the healthcare user should be admitted

as a result of an accident. This would be either an acute case or someone returning for treatment (in which case an Accident Claim

Number would be required).

The accident flag can be set to N and an Accident Claim Number reported if a patient has an accident in hospital. In this case the injury date must be between the Event start datetime and Event end datetime.

Events where the accident flag is set to 'Y' may or may not have claims that are supported by Accident Compensation Corporation (ACC)

Verification rules Optional.

**Collection methods** 

Related data ACC claim number

Clinical code (classifies the injuries and cause of accident)

Source document

### Admission source code

**Definition** A code used to describe the nature of admission (routine or transfer) for

a hospital inpatient health event.

 Column name
 admission\_source\_code

 Table name
 fact\_nmd\_health\_event

Data type char(1)

Other names

**Context** Hospital inpatient or day patient health event.

Layout A

**Data domain** R Routine admission

Transfer from another hospital facility

Guide for use Patients admitted from rest homes where the rest home is their usual

place of residence are routine admissions, not transfers.

Patients transferred using DW or DF event end type codes within the same facility should be readmitted with an admission source code of R.

Verification rules Must be a valid code in the Admission Source code table.

Collection methods

**Related data** Admission Source code.

Source document

Source organisation National Data Policy Group

## Admission type

**Definition** A code used to describe the type of admission for a hospital healthcare

health event.

Column name admission\_type

Table name fact\_nmd\_health\_event

Data type varchar2(2)

Other names Admission type

Context

Layout AA

**Data domain** See the Admission Type code table on the Ministry of Health web site at

http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables. For further information contact Analytical

Services.

Guide for use From July 2004, Admission types 'ZA', 'ZC', ZP' and 'ZW' were retired,

and ACC cases should be identified by the use of the Accident Flag.

#### AA - ARRANGED ADMISSION (introduced in 1995)

A planned admission where:

- the admission date is less than seven days after the date the decision was made by the specialist that this admission was necessary, or

- the admission relates to normal maternity cases, 36 to 42 weeks gestation, delivered during the event. In these cases, patients will have been booked into the admitting facility and the health specialty code for records where the date portion of Event end datetime is before 1 July 2008 will always be P10 Delivery Services (Mothers). For records where the date portion of Event end datetime is on or after 1 July 2008 the health specialty code will always be P60 Maternity Services-Mother (no community LMC) or P70 Maternity Services-Mother (with

community LMC).

#### AC - ACUTE ADMISSION (introduced in 1994)

An unplanned admission on the day of presentation at the admitting healthcare facility. Admission may have been from the Emergency or Outpatient Departments of the healthcare facility or a transfer from another facility. Note that the Accident Insurance Act defines Acute as Acute plus Arranged.

#### AP - ELECTIVE (introduced in 1996)

Elective admission of a privately funded patient in either a public or private hospital.

#### RL - PSYCHIATRIC PATIENT RETURNED FROM LEAVE (introduced

n 1994)

A sectioned mental health patient, returning from more than 14 days

#### WN - WAITING LIST/BOOKING LIST (introduced in 1994)

A planned admission where the admission date is seven or more days after the date the decision was made by the specialist that this admission was necessary.

'WU' (Waiting list - urgent) code not used from 20 August 1993.

#### Verification rules Code must be present in the Admission Type code table.

The date portion of Event End Datetime must be on or prior to the Admission type end date (if populated).

As from 1 July 2004, using a retired code will generate an error message.

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Related data Accident Flag,

Source document

# Age at admission

**Definition** The age of a patient on admission to hospital.

Column name age\_at\_admission

Table name fact\_nmd\_health\_event

Data type integer

Other names

**Context** Demographic information.

Layout

**Data domain** 000 - 120

**Guide for use** Event start datetime minus date of birth, expressed in completed years.

Age at discharge (not Age at admission) is used in official Ministry of

Health publications from the NMDS.

Verification rules

**Collection methods** 

Related data Event start datetime

Date of birth

Source document

# Age at discharge

**Definition** The age of a patient on discharge from hospital.

Column name age\_at\_discharge

Table name fact\_nmd\_health\_event

Data type integer

Other names

**Context** Demographic information.

Layout

Data domain 000 - 120, XXX

Guide for use Event end datetime minus date of birth expressed in completed years. If

the event end datetime is not entered then this field will contain 'XXX'.

Age at discharge (not Age at admission) is the age most often used for

analysis.

Verification rules

**Collection methods** 

Related data Date of birth

Event end datetime

Source document

# Age of mother

**Definition** Age of mother in years at time of birth of infant.

Column name age\_of\_mother

Table name fact\_nmd\_health\_event

Data type integer

Other names

Context Birth event.

Layout

**Data domain** 00 - 99

00 is default value if mother's age is not known.

Guide for use

Mandatory for birth events. Must not be supplied for other event types.

Collection methods Only required for babies born in hospital.

Found only on the baby's 'BT' (birth) event.

Related data Event type code

Source document

## Agency code

Definition A code that uniquely identifies an agency. An agency is an organisation,

institution or group of institutions that contracts directly with the principal

health service purchaser to deliver healthcare services to the

community.

Column name agency\_code

Table name fact\_nmd\_health\_event

Data type varchar2(4)

Other names Health agency code, DHB

Context

Layout XXXX

Data domain See the Agency code table on the Ministry of Health web site at

http://www.health.govt.nz/nz-health-statistics/data-references/codetables/common-code-tables. For further information or a printed copy of

the code table, contact the Analytical Services.

Guide for use Historically, also known as CHE (Crown Health Enterprise), HHS

(Hospitals and Health Services) and AHB (Area Health Board).

Between 1988 and 1993 the Agency code was assigned based on the

original 1993 agency groupings.

If the facility on an event does not belong to the agency, it means that

the agency has contracted a facility belonging to a different agency to

treat the patient.

Unit record information with Facility codes will not be provided to members of the public without the permission of the agency involved. See the Data Access Policy on the Ministry of Health web site at http://www.health.govt.nz/nz-health-statistics/access-and-use.

This is a key field for allocating purchase units.

If agencies merge, a new code may be assigned or the new agency can negotiate with the Ministry of Health to maintain the existing codes.

The Ministry of Health allocates codes on request. The code table is continually updated by the Ministry as hospitals open and close. See

the Ministry of Health web site for the most recent version.

Verification rules Must be a valid code in the Agency code table.

Collection methods

Related data

Source document

Source organisation Ministry of Health

## Batch id

**Definition** A unique identifier for each batch.

Column name batch\_id

Table name fact\_nmd\_health\_event

Data type integer

Other names

Context

Layout

Data domain

Guide for use Generated by the load process. Used internally for reference to the file

in which this record was loaded into the NMDS.

The Batch ID is used in place of the batch filename.

Verification rules

**Collection methods** 

Related data

Source document

#### Birth status

**Definition** Field which records whether an infant was still or liveborn.

Column name birth\_status

Table name fact\_nmd\_health\_event

Data type char(1)

Other names

**Context** Birth event.

Layout A

Data domain 'L' = Liveborn

'S' = Stillborn

Guide for use Effectively only livebirths are reported to the NMDS.

Information about fetal deaths (still births) is obtained from death registration records, death certificates and autopsy reports, and is entered directly by the Ministry of Health staff. Provider systems will therefore only report information about livebirths that occur in their

facilities. Provider systems may default to 'L' (Liveborn).

The World Health Organization definition of a livebirth is:

The complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which after such separation, breathes or shows other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached. Each product of such a birth is

considered liveborn.'

For liveborn infants who die in hospital without ever going home, record

the mother's address.

Verification rules Mandatory for birth events. Must not be supplied for other event types.

**Collection methods** 

Related data

Source document

# Birth weight

**Definition** Weight of infant at time of birth, in grams.

Column name birth\_weight

Table name fact\_nmd\_health\_event

Data typevarchar2(4)Other namesBirth weightContextBirth event.

Layout NNNN

**Data domain** 0001 - 9999

Guide for use Records reporting 0001 to 0399 grams will be returned with a warning

message that birthweight is unusually low. Hospitals will need to confirm this value before the record will be loaded into the NMDS.

Verification rules Mandatory for birth events.

Collection methods Record as soon as practicable after the birth event. If not known, the

default is '9000'.

For birth events, Weight on admission will be identical to the

Birthweight.

Related data Weight on admission

Source document

# Client system identifier

**Definition** A unique identifier for the record stored within the health provider's

system

 Column name
 client\_system\_identifier

 Table name
 fact\_nmd\_health\_event

Data type varchar2(14)

Other names

Context

Layout

Data domain

Guide for use Used to store any record level identification that a provider's system

may require in addition to the PMS unique identifier.

This field is used as a reference field for checking data quality.

Verification rules

**Collection methods** 

**Related data** Related to PMS unique identifier.

Source document

# Complication and comorbidity level (CCL)

Definition CCL - Complication/co-morbidity class level. This comes out of the

DRG grouper program and identifies the clinical severity within a DRG

code.

Column name ccl

Table name fact\_nmd\_health\_event

Data type char(1)

Other names

Context DRG version 3.1

Layout N

**Data domain** 1 minor CC or non-CC

2 moderate CC3 major CC4 extreme CC

**Guide for use** Relates only to DRG Grouper versions 3.0 and 3.1.

Serves the same purpose for DRG Grouper clinical versions 3.0 and 3.1 as PCCL does for DRG Grouper clinical versions 4.1, 4.2 and 5.0.

The AR-DRG v4.1 Definitions Manual says CCLs 'are severity weights given to ALL additional diagnoses. They range in value from 0 to 4 for surgical and neonate episodes, and from 0 to 3 for medical episodes, and have been developed through a combination of medical judgement and statistical analysis. CCL values can vary between adjacent DRGs.'

Verification rules

Collection methods

Related data DRG code version 3.1

PCCL

**Source document** See the AN-DRG manual

**Source organisation** The logic for the DRG software is specified by the Health Services

Division of the Commonwealth Department of Health and Ageing,

Australia

## Cost weight

**Definition** Calculated value designed to weight a base rate payment.

Column name cost\_weight

Table name fact\_nmd\_health\_event

**Data type** number(9,4)

Other names Cost weight, Case weight

Context

Layout

Data domain

Guide for use Costweight is calculated using the Weighted Inlier Equivalent

Separation (WIES) method, according to different schedules each financial year. The Costweight code indicates the schedule.

Costweights in use from 1 July 2008 have been developed from New

Zealand costs.

Every event is given a Costweight, calculated from:

- the DRG code and associated variables

- Length of stay

- Total hours on mechanical ventilation

- some procedure codes and diagnosis codes.

For details, see the Technical Documentation page on

http://www.health.govt.nz/nz-health-statistics/data-references/weighted-

inlier-equivalent-separations/wiesnz11-cost-weights.

It is used with the Financial year for calculating payments based on the

year of Event end datetime in the patient record.

Verification rules

Collection methods

Related data DRG codes

Costweight code Purchase unit

DRG grouper type code Health specialty code

**Source document** See http://www.health.govt.nz.

**Source organisation** National Centre for Classification in Health, University of Sydney,

Australia (modified for New Zealand contracting)

# Cost weight code

**Definition** Indicates the schedule by which the Costweight and Purchase unit are

calculated for that financial year.

Column name cost\_weight\_code

Table name fact\_nmd\_health\_event

Data type varchar2(2)

Other names

Context

Layout

Data domain

Guide for use

Verification rules

**Collection methods** 

Related data Costweight

DRG codes Purchase unit

Source document

Source organisation DHBNZ

## Country code

**Definition** Coded value for the country of birth as assigned from the Statistics NZ

Country Code list (NZSCC86).

Column name country\_code

Table name fact\_nmd\_health\_event

Data type varchar2(3)

Other names

**Context** Primarily used for epidemiological studies.

Layout NNN

**Data domain** 004 - 999.

See the Country of Birth code table on the Ministry of Health web site at http://www.health.govt.nz/nz-health-statistics/data-references/code-

tables/common-code-tables

Guide for use Mandatory for cancer patients until 1 July 2001.

With the introduction of the Cancer Registry Act, pathologists were given responsibility to ensure that all specified primary cancer cases are reported, and the pathology report became the principal source of

information identifying new cases of primary cancer.

Because pathology reports do not contain all the information required to complete cancer registrations, Section 6 of the legislation also authorises the Cancer Registry to seek additional information from medical practitioners or hospitals. Information not available from laboratories is: Occupation code, Country of birth code, and Extent of

cancer disease code.

Verification rules Optional.

**Collection methods** 

Related data

Source document

Source organisation Statistics NZ

#### Date of birth

**Definition** The date on which the person was born.

Column name date\_of\_birth

Table name fact\_nmd\_health\_event

Data type date

Other names DOB, HCU date of birth, Birth date

**Context** Required to derive age for demographic analyses.

Layout

Data domain Valid dates

Partial dates are permissible.

Guide for use In 1993 the option to submit partial dates using the partial date flag was

introduced.

For events before 1993, there was no partial date option or partial date flag. The default date was 15/6 or 15/month (if the month was known). The 15/6 model of partial dates should only occur in data before

1994/1995.

Used, for example, for analysis by age at a point in time and for use to

derive a Diagnosis Related Group (for admitted patients).

Incomplete dates are stored as 'ccyy0101' or 'ccyymm01' and a partial date flag associated with the date is set to the appropriate value.

**Verification rules** Must be on or before the date portion of Event start datetime.

Must be consistent with diagnoses and procedure codes for the record

to be loaded. Otherwise it will result in a warning.

Collection methods At a minimum the century and year must be supplied. If day is provided

but month is omitted then the day will not be recorded.

Related data DRG codes

Event start datetime Event end datetime Operation/procedure date

Age at admission Age at discharge Date of birth flag

Source document

# Date of birth flag

**Definition** Indicates whether the date of birth stored is a partial date.

Column name date\_of\_birth\_flag

Table name fact\_nmd\_health\_event

Data type char(1)

Other names

Context

Layout

Data domain D where the day portion of the date is missing, default to '01'

M where both day and month portions of the date are missing, default

to '01/01'

Guide for use A partial date flag, set automatically.

As the system allows partial dates to be entered, this identifies what

field(s) are missing if a partial date is entered.

For example, if a date is entered as '00/00/2005', then the date is stored

as '01/01/2005' and the partial indicator would be set to 'M'.

Verification rules

**Collection methods** 

Related data Date of birth

Source document

# Date psychiatric leave ends

**Definition** The date on which a committed mental health patient's period of leave

ended.

Column name date\_psychiatric\_leave\_ends

Table name fact\_nmd\_health\_event

Data type date

Other names Date psychiatric leave ended

**Context** A healthcare user is discharged on leave, then the event ends by

discharge or re-admission to hospital. Only for healthcare users committed under the Mental Health (Compulsory Assessment &

Treatment) Act 1992.

Layout

Data domain Valid dates

Partial dates not allowed.

Guide for use Not reliably reported since 1993.

Healthcare users can be on leave for up to 2 years under the Act.

Verification rules Optional. Must only be present when Event end type is 'DL'.

Collection methods Only required for committed patients who go on leave for a period of 14

days or more. The data should be provided when leave has ended.

Related data Psychiatric leave end code

Source document Mental Health (Compulsory Assessment & Treatment) Act 1992

# Date surgery decided

**Definition** The date on which the healthcare user was assessed as requiring

surgery.

 Column name
 date\_surgery\_decided

 Table name
 fact\_nmd\_health\_event

Data type date

Other names

**Context** Elective surgical events.

Layout

Data domain Valid dates

Guide for use No longer reported to NMDS

Not reliably reported to the NMDS. From July 2000, this information is also collected in the Date certainty given field in the National Booking Reporting System (NBRS), which has more complete coverage.

Verification rules

**Collection methods** 

Related data Surgical priority

Source document

# Dim\_funding\_agency\_code\_key

**Definition** The dim\_agency\_facility surrogate key.

Column name dim\_funding\_agency\_code\_key

Table namefact\_nmd\_health\_event

Data type number(38)

Other names

Context

Layout

Data domain

Guide for use

Verification rules

**Collection methods** 

Related data

Source document

#### Domicile code

**Definition** Statistics NZ Health Domicile Code representing a person's usual

residential address. Also used for facility addresses.

Column name domicile\_code

Table name fact\_nmd\_health\_event

Data type varchar2(4)

Other names

**Context** Required for demographic analyses. Domicile codes are key variables

for determining the characteristics of the population that are using the

health sector.

Layout

Data domain See the Domicile code table on the Ministry of Health web site at

http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables. For further information or a printed copy of

the code table, contact Analytical Services.

Guide for use

Usual residential address is defined as the address of the dwelling where a person considers himself or herself to usually reside. (Statistics NZ definition of 'usually resident'.) If a person usually lives in a rest

home or a hospital, that is considered their usual residential address.

The Domicile code used for health collections is a four-digit Health Domicile Code specially created by Statistics NZ from their six-digit Census Area Unit Code. This field contains 3 versions of this Domicile code, one for each of the 1991, 1996 and 2001 censuses. The code table contains current and retired codes (see status column: C = current

and R = retired).

Before July 1993, domicile was coded using the 1986 census Domicile codes. This data has been mapped to the 1991 codes.

Care needs to be exercised when analysing pre-1993 data in terms of population, as the 1991 census split a large number of the 1986 codes into two or more new Domicile codes. As it was not possible to accurately attribute particular events to the correct new code, only one of the new multiple codes could be chosen for each old code. This can result in some areas showing no events for one code and an over-representation of events for the other domicile.

Since 1996, Domicile code has been automatically assigned on the NHI database using the address provided. This can result in rural addresses being assigned to an urban Domicile code where there is insufficient data to generate the correct code. This is because the automated software relies on generating a post code in order to determine where in a related table it should look to find the code. Most events in the NMDS contain a Domicile code that has been generated in this manner.

- The 1991 code was used from 1988 to 30 June 1998. (1986 codes were converted to 1991 codes on migration into NMDS in 1993.)
- The 1996 code was used from 1 July 1998 to 30 June 2003.
- The 2001 code was used from 1 July 2003 to 30 June 2008.
- The 2006 code was used from 1 July 2008 to 30 June 2015.
- The 2013 code has been in use since 1 July 2015.

The series of Domicile codes used depends on the date portion of Event end datetime. If an event does not have an end date, the date portion of Event start datetime is used.

New general codes have been added for DHBs from 1 July 2001. General DHB codes should be a last resort, used only if the correct Domicile code cannot be determined.

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NMD Fact Health Event table

**Verification rules** Must be a valid code in the Domicile code table.

Care should be taken to record accurate and useful residential

addresses, since Domicile codes may be automatically assigned using

this information.

Related data TLA of domicile

Source document

Source organisation Statistics NZ

Version 7.8 MoH 79

## DRG code current

**Definition** A diagnosis-related group (DRG) code produced by the current DRG

grouper program version 6.0x.

Column name drg\_code\_current

Table name fact\_nmd\_health\_event

Data type varchar2(4)

Other names

Context Clinical demographic and administrative information within a health

event.

Layout XXXX

**Data domain** 801A - 963Z, A01Z - Z65Z

**Guide for use** A diagnosis-related group (DRG) code of clinical version 4.1, 4.2, 5.0,

6.0 or 6.0x produced by the current DRG grouper program version 6.0 which takes up to 30 diagnoses and 30 procedure codes in a health event and assigns a DRG code based on a complex algorithm.

The version 4 groupers used 20 codes. This provides another way of analysing event information based on classifying episodes of inpatient care into clinically meaningful groups with similar resource consumption.

Introduced on 1 July 2001 for DRG clinical version 4.1.

If the date portion of Event end datetime is between 1 July 2001 and 30 June 2002, this field contains a DRG code of clinical version 4.1.

If the date portion of Event end datetime is between 1 July 2002 and 30 June 2004, this field contains a DRG code of clinical version 4.2.

If the date portion of Event end datetime is between 1 July 2004 and 30 June 2011, this field contains a DRG code of clinical version 5.0.

If the date portion of Event end datetime is between 1 July 2011 and 30 June 2013, this field contains a DRG code of clinical version 6.0.

If the date portion of Event end datetime is on or after 1 July 2013, this field contains a DRG code of clinical version 6.0x.

#### Calculated from:

- personal information (eg, Sex, Date of birth), and
- event information (eg, Admission date, Event end type), and
- diagnosis and procedure information in the appropriate ICD code for the DRG Grouper (ICD-10-AM 3rd Edition).
- Between 1 July 2004 and 30 June 2005, most hospitals supplied diagnosis and procedure information using ICD-10-AM 3rd Edition codes. As AR-DRG version 5.2 requires ICD-10-AM 2nd Edition codes, NMDS will map the 3rd edition codes supplied by hospitals to 2nd edition codes and use these to assign an AR-DRG 4.2 code.
- Between 1 July 2004 and 30 June 2008, most hospitals supplied diagnosis and procedure information using ICD-10-AM 3rd Edition codes. AR-DRG version 5.0 required no additional mapping.
- Between 1 July 2008 and 30 June 2011, the field contains a DRG from AR-DRG version 5.0 derived, if necessary, by mapping ICD-10-AM 6th Edition codes back to ICD-10-AM 3rd Edition Codes
- Between 1 July 2011 and 30 June 2013, the field contains a DRG from AR-DRG version 6.0, the derivation for which uses ICD-10-AM 6<sup>th</sup> Edition codes.
- Between 1 July 2013 and 30 June 2014, the field contains a DRG from

NMD Data Mart Data Dictionary

NMD Fact Health Event table

AR-DRG version 6.0x, the derivation for which uses ICD-10-AM 6th

Edition codes.

- From 1 July 2014, the field contains a DRG from AR-DRG version 6.0x derived, if necessary, by mapping ICD-10-AM 8<sup>th</sup> Edition codes back to ICD-10-AM 6<sup>th</sup> Edition codes.

Verification rules

**Collection methods** External cause codes are not used by the grouper. It is recommended

that hospitals prioritise diagnoses and procedure codes in order to present the grouper with the most severe diagnoses and operations.

Related data Costweight code

Costweight
Purchase unit
PCCL
MDC code
MDC type

DRG grouper type code

Source document

**Source organisation** The logic for the DRG software is specified by the Health Services

Division of the Commonwealth Department of Health and Ageing,

Australia.

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## DRG code v30

**Definition** Diagnosis-related group code produced by version 3.0 of AN-DRG.

Column name drg\_code\_v30

Table name fact\_nmd\_health\_event

Data type varchar2(3)

Other names

Context

Layout XXX

Data domain

Guide for use

Verification rules

**Collection methods** 

Related data

Source document

#### DRG code v31

**Definition** Diagnosis-related group code produced by clinical version 3.1 of AN-

DRG Grouper.

Column name drg\_code\_v31

Table name fact\_nmd\_health\_event

Data type varchar2(3)

Other names

Context Clinical demographic and administrative information within a health

event.

Layout

**Data domain** 001 - 956

Guide for use A diagnosis-related group (DRG) produced by invoking a DRG program

that compares all diagnostic codes in a health event and assigns a

DRG code based on a complex series of decision trees.

This classifies the episodes of inpatient care into clinically meaningful

groups with similar resource consumption.

Until 1 July 2001 the clinical version of AN-DRG 3.1 was produced by running 3M version 3.1 AN-DRG Grouper Program over ICD-9-CM-A version II diagnosis and procedure codes. Since July 2001, 3M AR-DRG version 4.2 of the Grouper Program has been used to generate clinical version 3.1 codes in this field. The current version (4.2) uses up to 20 diagnoses and 20 procedure codes. The previous version (3.1)

used up to 15 diagnoses and 15 procedures.

Before 1 July 1995 for DRG v3.1 data providers mostly reported only 4 diagnosis and 3 procedure codes, so that was all that was available for

DRG assignment.

DRG codes of clinical version 3.1 are stored for all events, as this field

is often used for analysis.

Verification rules

Collection methods

Related data CCL

Costweight code Costweight Purchase unit MDC code MDC type

DRG grouper type code

Source document

## DRG grouper type

Definition A code to describe the clinical version of the DRG calculation used.

Column name drg\_grouper\_type

Table name fact\_nmd\_health\_event

Data type varchar2(2)

Other names

Context

Layout

Data domain A code to describe the clinical version of the DRG calculation used.

> 01 Medicare version 4.0 Secondary Care (retired)

AN-DRG version 3.1 02 03 AR-DRG version 4.1 04 AR-DRG version 4.2 05 AR-DRG version 5.0 AR-DRG version 6.0 06 07 AR-DRG version 6.0x

Guide for use DRG grouper type code should be the same as the MDC type.

'02' was used until 30 June 2000.

'03' was used between 1 July 2000 and 30 June 2002. '04' was used between 1 July 2002 and 30 June 2005 '05' was used between 1 July 2005 and 30 June 2012. '06' was used between 1 July 2012 and 30 June 2013

'07' will be used from 1 July 2013

The grouper software version produce a number of clinical versions. Ministry of Health is currently using software version 6.0x to produce DRG codes of clinical versions 3.1, 4.1, 4.2, 5.0, 6.0 and 6.0x. This

field describes the clinical version.

Verification rules

Collection methods

Related data DRG codes

> MDC type MDC code

Source document

# Encrypted hcu id

**Definition** The NHI number in encrypted form.

Column name encrypted\_hcu\_id

Table name fact\_nmd\_health\_event

Data type varchar2(11)

Other names Encrypted HCU identifier, Encrypted NHI, etc. See other names for the

NHI number under 'Guide for use' below.

**Context** A unique 7-character identification number assigned to a healthcare

user by the National Health Index (NHI) database. It is encrypted in the

NMDS to ensure privacy of individual records.

Layout

Data domain System-generated

Guide for use The NHI number is the cornerstone of the Ministry of Health's data

collections. The NHI number uniquely identifies healthcare users, and

allows linking between different data collections.

The NHI number is also known as National Health Index, HCU identifier, NHI, HCU, HCU Number, Healthcare User identifier, HCU identification number, NMPI number, Hospital Number, Patient Number.

New numbers can be allocated by health providers who have direct access to the NHI Register. New NHI numbers are also allocated by Sector Services for GPs and other primary care providers

When duplicate records for a healthcare user are merged, one of their NHI numbers will be deemed to be the master (or primary), and the others become event (or secondary) NHI numbers. This does not affect which NHI numbers are used in local systems.

In the NMDS, the NHI number that is sent in by the data provider is encrypted during the loading process. Only this encrypted NHI number is stored.

For the analysis of healthcare information relating to a unique individual, the master NHI number should be used. Please contact Analytical Services for further information on how to obtain the master encrypted NHI number if you are performing your own data extraction.

The Privacy Commissioner considers the NHI number to be personally identifying information (like name and address) so, if it is linked to clinical information, it must be held securely and the healthcare user's privacy protected. The Encrypted NHI number is not considered personally identifying.

The Ministry of Health will return data containing unencrypted NHI numbers to providers who have sent it in. Information with unencrypted NHI numbers may be disclosed to researchers on a case-by-case basis.

#### VALIDATION

The first three characters of an NHI number must be alpha (but not 'I' or 'O'). The 4th to 6th characters must be numeric. The 7th character is a check digit modulus 11.

The NHI number, Event type code, Event start datetime, Facility code, and Event local identifier form a unique key for checking for duplicates on insert, or checking for existence on delete. See Appendix: Duplicate and overlapping event checking rules.

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NMD Fact Health Event table

**ENCRYPTION** 

The NHI number is encrypted using a one-way encryption algorithm. The aim is to provide an encrypted number that can be sent across

public (unsecured) networks.

Verification rules Must be registered on the NHI database before the NHI number can be

used in the NMDS.

There is a verification algorithm which ensures that the NHI number is

in the correct format and is valid.

Collection methods NHI numbers are often included on patient notes and other patient

documentation.

Related data

Source document http://www.health.govt.nz/our-work/health-identity/national-health-index

**Source organisation** Ministry of Health

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#### Ethnic code

**Definition** Ethnic affiliation

Column name ethnic\_code

Table name fact\_nmd\_health\_event

Data typevarchar2(2)Other namesEthnicity

Context

Layout NN

**Data domain** See the Ethnic Group code table on the Ministry of Health web site at

http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables. For further information or a printed copy of

the code table, contact Analytical Services.

Guide for use Information on ethnicity is collected for planning and service delivery

purposes and for monitoring health status across different ethnic groups. Ethnic group codes are key variables for determining the characteristics of the population that are using the health sector.

See Appendix: Guide for use of Ethnic Codes.

From 1 July 1996 up to 3 Ethnic group codes can be collected for each healthcare user and each event. Where more than 3 Ethnic group codes are reported, the Statistics NZ prioritisation algorithm is used to report only 3 values.

Because ethnicity is self-identified, it can change over time. This is why Ministry of Health collects ethnicity information for each health event, rather than relying on the data in the National Health Index (which does not include historical data).

Each ethnic group as maintained by Statistics NZ has a 5-digit code. Ministry of Health collections use only the first 2 digits.

Use of the code '54' (Other) is limited to only about 5 ethnic groups. It must not be used as a generic 'other' code. If a person chooses not to answer the ethnicity question, record their ethnicity as 'not stated'. See Appendix: Collection of Ethnicity Data.

Each ethnic group as maintained by Statistics NZ has a 5-digit code. Ministry of Health collections use only the first 2 digits.

Verification rules Ethnicity 1 is mandatory.

Ethnicity 2 and Ethnicity 3 are optional.

Ethnicity 2 cannot be the same as Ethnicity 1 or 3. Ethnicity 3 cannot be

the same as Ethnicity 2 or 1.

Must be a valid code in the Ethnic code table.

**Collection methods** Ethnicity should be self-identified wherever possible. If the Ethnic group

code changes for this event, please update the NHI.

Related data Prioritised ethnicity

Source document Smith, Anthony. 1981. The Ethnic Revival. Cambridge University Press.

Source organisation Statistics NZ

# Event elapsed time in minutes

Definition

Column name event\_elapsed\_time\_in\_minutes

Table name fact\_nmd\_health\_event

Data type integer

Other names

Context

Layout

Data domain

Guide for use

Verification rules

**Collection methods** 

Related data

Source document

## Event end datetime

**Definition** The date and time on which a healthcare user is discharged from a

facility (i.e., the date and time the heathcare event ended) or the date and time on which a sectioned mental health patient is discharged to

leave.

**Column name** event\_end\_date

Table name fact\_nmd\_health\_event

Data type date

Other names Discharge date, Event end/leave date

Context

Layout

Data domain Valid date and time

Guide for use

Verification rules Partial dates not allowed.

Optional for psychiatric inpatient events. Mandatory for births, intended

day cases and non-psychiatric inpatient events.

**Collection methods** 

Related data Event end type code

Date of birth

Event start datetime Operation/procedure date

Event leave days Age at discharge Length of stay Year of data Month of data Financial year

Source document

## Event end type

**Definition** A code identifying how a healthcare event ended.

Column name event\_end\_type

Table name fact\_nmd\_health\_event

Data type varchar2(2)

Other names Discharge type

Context

Layout

**Data domain** See the Event End Type code table on the MoH web site at

http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables. For further information or a printed copy of

the code table, contact Analytical Services.

Guide for use 'RO' was superseded on 1 July 1994.

'DA' and 'DW' were introduced in 1995.

'DO' was introduced in 1997. 'DF' was introduced in 2000.

EA, ED, EI, ER, ES and ET were introduced in 1 July 2007

See Appendix for the allocation Guide for Use of NMDS Emergency Department (ED) Event End Type Codes, Emergency Department scenarios and Event End Type Code mappings for 3M CodefinderTM.

Verification rules Must be a valid code in the Event End Type code table.

Optional for psychiatric inpatient events. Mandatory for all other event types.

Collection methods Refer to notes in the National Minimum Dataset (Hospital Events) Data

Dictionary on the Ministry of Health web site at

http://www.health.govt.nz/publication/national-minimum-dataset-

hospital-events-data-dictionary

Related data event\_end\_date, event\_end\_description

Source document

**Source organisation** National Data Policy Group

## Event extra information

**Definition** Enables extra information concerning an event to be recorded in a free-

text format.

Column name event\_extra\_information

Table name fact\_nmd\_health\_event

Data type varchar2(90)

Other names Comment field, Free text field

Context

Layout Free text

Data domain

Guide for use The field is currently used primarily for cancer events, as a place to

record extra information about primary tumours. It may also be used to supply extra information for external cause of injury where the diagnosis

description field is not long enough.

Verification rules Optional.

**Collection methods** 

Related data

Source document

## Event id

**Definition** An internal reference number that uniquely identifies a health event.

Column name event\_id

Table name fact\_nmd\_health\_event

Data type integer

Other names

**Context** Any event on the NMDS.

Layout

Data domain

Guide for use Serves as the primary key for all data tables. Event ID is assigned by

the Ministry of Health on load, so if an event is deleted and then

reloaded, a new Event ID will be assigned.

Unique link between the main tables in the database.

Verification rules Add 1 to the previous maximum number.

**Collection methods** 

Related data

Source document

## Event leave days

**Definition** The number of days an inpatient on leave is absent from the hospital at

midnight, up to a maximum of three days (midnights) for non-psychiatric

hospital inpatients for any one leave episode.

Column name event\_leave\_days

Table name fact\_nmd\_health\_event

Data typevarchar2(3)Other namesLeave days

Context

Layout NNN

**Data domain** 000 - 999

Guide for use Where there is more than one period of leave during an episode,

accumulated leave days should be reported.

This is not how leave is calculated for sectioned mental health patients, and their leave days should not be accumulated under this field.

If after three days for non-psychiatric hospital inpatients or 14 days for informal mental health inpatients the patient has not returned to care, discharge is effective on the date of leaving hospital. These days should

not be recorded as Event leave days in this case.

Verification rules Optional.

Event leave days must be null or greater than zero.

Event leave days must not be greater than the difference in days

between Event start datetime and Event end datetime.

**Collection methods** 

Related data Event start datetime

Event end datetime Length of stay

Source document

## Event local id

**Definition** Local system-generated number to distinguish two or more events of

the same type occurring on the same day at the same facility.

Column name event\_local\_id

Table name fact\_nmd\_health\_event

Data type char(1)
Other names Local ID

Context

Layout N

Data domain 1-Sep

Guide for use

Verification rules The NHI number, Event type code, Event start datetime, Facility code,

and Event local identifier form a unique key for checking for duplicates on insert, or checking for existence on delete. See Appendix: Duplicate

and overlapping event checking rules.

**Collection methods** 

Use 9 first then '8,7, ...,1'.

Related data

Source document

#### Event start datetime

Definition The admission date on which a healthcare event began.

Column name event start date

Table name fact\_nmd\_health\_event

Data type date

Other names Admission date

Context Admitted patients.

Layout **CCYYMMDDhhmm** 

Data domain Valid date and time

> Hours is in the range 00 to 23 Minutes is in the range 00 to 59

Midnight is the beginning of the calendar day i.e. 201101280000 (which

equates to 24:00 of 27/01/2011).

Guide for use The time portion of Event start datetime has only been collected since 1

July 2011.

Event start time (Admission time):

- For acute events meeting the three hour admission rule the event start time is when the patient is first seen by a clinician, nurse or other healthcare professional in the Emergency Department, Acute Assessment Unit, Admission Planning unit or the like. When determining the event start time exclude waiting time in a waiting room

and triage time.

- For acute patients admitted directly to a ward/unit eg direct admission to intensive care unit (ICU), admission via delivery suite then the admission time is the time the patient arrives in the ward/unit care

setting.

- For non-acute events - (i.e. elective/arranged patients, same day or inpatient), the event start time will be when the patient physically arrives in the ward/unit or day stay clinical area. This will not include the time they spend in a waiting area before any nursing/clinical care starts.

- For birth events (BT events) - the event start time will be the time of birth for in hospital births only. Babies born before mother's admission to hospital or transferred from the hospital of birth are recorded as IP (inpatient event) and the event start time will be the time the patient arrives in the ward/neonatal intensive care unit (NICU).

- For internal and external transfers the event start time is the time the patient physically arrives in the new health care setting. The event end time for a discharge to another service within the same facility (DW) or discharge to another facility (DT, DA) will be when the patient leaves the health care setting. There will be a gap between these events which is the time taken to transfer. We would not expect these events to be contiguous. This will also apply to patient retrievals where a retrieval team is sent to another hospital to retrieve and transport a patient back

to their hospital.

Verification rules Must be on or before the Date of load and the Event end datetime. Must

be the same as the Date of birth for Birth Events.

Collection methods

Related data Date of birth

> Event end datetime Operation/procedure date

Event leave days Age at admission Length of stay

Source document

## Event type

**Definition** Code identifying the type of health event.

Column name event\_type

Table name fact\_nmd\_health\_event

Data type varchar2(2)

Other names

Context

Layout

Data domain See the Event Type code table on the Ministry of Health web site at

http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables. For further information or a printed copy of

the code table, contact Analytical Services.

Guide for use The presence of some fields depends on the Event type code. See

Appendix: Enhanced Event Type/Event Diagnosis Type Table.

Only one birth event is allowed for each NHI number. Babies born before mother's admission to hospital or transferred from the hospital of

birth are recorded as IP.

The NHI number, Event type code, Event start datetime, Facility code, and Event local identifier form a unique key for checking for duplicates on insert, or checking for existence on delete. See Appendix: Duplicate

and overlapping event checking rules.

'ID' was used where the intention at admission was that the event will

be a day-case event. This Event type was retired in 2013.

'IP': The definition of a mental health patient is 'a patient who has a mental illness diagnosis'. Patients with an intellectual disability are no longer regarded as mental health patients. With the introduction of the Mental Health (Compulsory Assessment and Treatment) Act 1992 on 1 November 1992, it became possible for mental health patients, both informal (i.e., voluntary) and formal, to be admitted to a general ward of any public hospital or psychiatric hospital. When a mental health patient is admitted to a general ward for treatment of a psychiatric illness, then the event type code of 'IP' can now be used. This also includes day patients. A legal status code and leave details must also be supplied for these patients if relevant. The default for legal status is 'I' (voluntary

patient).

**Verification rules** Must be a valid code in the Event Type code table.

Collection methods

Related data

Source document

## **Excluded Purchase Unit**

**Definition** For events that have a Purchase Unit of 'EXCLU', the Purchase Unit

allocated by mapping the Health Specialty Code to a Purchase Unit

from the National Service Framework Data Dictionary.

Column name exclu\_purchase\_unit

Table name fact\_nmd\_health\_event

Data type varchar2(10)

Other names

Context

Layout

**Data domain** Purchase Units in the National Service Framework Data Dictionary.

Guide for use Derived using a mapping table of Health Specialty Codes to Purchase

Units.

Verification rules

**Collection methods** 

Related data Purchase Unit, Health Specialty Code

Source document

# Facility Transfer From

**Definition** For transfers, the facility that the healthcare user was transferred from.

Column name facility\_transfer\_from

Table name fact\_nmd\_health\_event

Data type varchar2(4)

Other names

Context

Layout

Data domain See the Facility code table on the Ministry of Health web site at

http://www.health.govt.nz/nz-health-statistics/data-references/code-

tables/common-code-tables

For further information or a printed copy of the code table, contact

Analytical Services.

Guide for use Unit record information with Facility codes will not be provided to

members of the public without the permission of the agency involved. See the Current Data Access Policy on the Ministry of Health web site at http://www.health.govt.nz/nz-health-statistics/access-and-use.

Verification rules Mandatory for Admission Source Code = 'T' (Transfers) for the events

ending on or after 1 July 2008.

Must be a valid code in the Facility code table.

**Collection methods** 

Related data Facility Code, Admission Source Code

Source document

# Facility Transfer To

**Definition** For transfers, the facility that the healthcare user was transferred to.

Column name facility\_transfer\_to

Table name fact\_nmd\_health\_event

Data type varchar2(4)

Other names

Context

Layout

Data domain See the Facility code table on the Ministry of Health web site at

http://www.health.govt.nz/nz-health-statistics/data-references/code-

tables/common-code-tables.

For further information or a printed copy of the code table, contact

Analytical Services.

Guide for use Unit record information with Facility codes will not be provided to

members of the public without the permission of the agency involved. See the Current Data Access Policy on the Ministry of Health web site at http://www.health.govt.nz/nz-health-statistics/access-and-use

Verification rules Mandatory for Event End Type Code = 'DA', 'DP', 'DT', 'EA' or 'ET'

(Transfers) for the events ending on or after 1 July 2008.

Must be a valid code in the Facility code table.

**Collection methods** 

Related data Facility Code, Event End Type Code

Source document

# Facility code

**Definition** A code that uniquely identifies a healthcare facility.

Column name facility\_code

Table name fact\_nmd\_health\_event

Data type varchar2(4)

Other names Health agency facility code, Hospital, HAF code, HAFC

Context

Layout

Data domain See the Facility code table on the Ministry of Health web site at

http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables. For further information or a printed copy of

the code table, contact Analytical Services.

Guide for use A healthcare facility is a place, which may be a permanent, temporary,

or mobile structure, that healthcare users attend or are resident in for the primary purpose of receiving healthcare or disability support services. This definition excludes supervised hostels, halfway houses, staff residences, and rest homes where the rest home is the patient's

usual place of residence.

See Appendix: Duplicate and Overlapping Event Checking rules.

Verification rules Must be a valid code in the Facility code table.

The NHI number, Event type code, Event start datetime, Facility code, and Event local identifier form a unique key for checking for duplicates

on insert, or checking for existence on delete.

Collection methods The Ministry of Health allocates codes on request. The code table is

continually updated by the Ministry as hospitals open and close. See

the Ministry web site for the most recent version.

Related data Birth location

Facility type

Source document

# Facility type

**Definition** A code that categorises facilities into particular types.

Column name facility\_type

Table name fact\_nmd\_health\_event

Data type varchar2(2)

Other names

Context

Layout NN

Data domain See the Facility Type code table on the Ministry of Health web site at

http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables. For further information or printed copy of

the code table, contact Analytical Services.

Guide for use Used with Principal health service purchaser in determining whether an

event is publicly funded.

Verification rules

**Collection methods** 

Related data Facility code

Birth location Private flag

Source document Create using the Facility type from the Facility table

# Financial year

**Definition** Field identifying which financial year data belongs to.

Column name financial\_year

Table name fact\_nmd\_health\_event

Data type varchar2(8)

Other names

Context

Layout

Data domain Range from '19221923', XXXXXXXX.

Guide for use Runs from 1 July to 30 June. For example, 1 July 1998 to 30 June 1999

would be entered as '19981999'.

Almost all data requests are based on a time period, the main ones of

which are calendar and fiscal years.

XXXXXXX is used for those events where there is no Event end datetime. Event end datetime is not mandatory for mental health

events.

Verification rules Derived from the year in Event end datetime where present. If Event

end datetime is missing then set to 'XXXXXXXX'.

**Collection methods** 

Related data Event end datetime

Source document

#### First consult date

**Definition** The date of the first specialist consultation which led to this event

(including consultation with specialist in private practice). It may be the

same date as the date of referral, eg, emergency admissions.

Column name first\_consult\_date

Table name fact\_nmd\_health\_event

Data type date

Other names

**Context** Elective surgical events.

Layout

Data domain Valid dates.

Partial dates permissible. At a minimum the century and year must be

supplied.

Guide for use No longer reported to the NMDS. From July 2000, this information is

collected in the Date of first specialist assessment field in the National

Booking Reporting System (NBRS), which has more complete

coverage.

If day is provided but month is omitted then the day will not be recorded. Incomplete dates are stored as 'ccyy0101' or 'ccyymm01' and a partial date flag associated with the date is set to the appropriate value.

Verification rules Optional.

Must be on or after the Date of birth.

Collection methods Required for total hip replacement, total knee replacement and coronary

artery bypass graft events.

Related data

Source document

# Funding\_agency\_code

 Definition
 The funding DHB code

 Column name
 funding\_agency\_code

 Table name
 fact\_nmd\_health\_event

Data type varchar2(64)

Other names

Context

Layout

**Data domain** See the Agency code table on the Ministry of Health web site at

http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables. For further information or a printed copy of

the code table, contact the Analytical Services.

Guide for use The Funding Agency has been introduced from 1 July 2012. This field

can be reported as a valid agency code or a given value or null based

on the rules given for the validation.

Funding Agency must be reported in all the events reported in the

v0r15.0 files regardless of the event end date.

Funding Agency will be available for reporting in the warehouse and BO

universes.

Funding Agency will be used to determine if a health event is included

in casemix funding.

An IDF will occur when the DHB of domicile is not the same as the

Funding Agency.

Electives volumes will be calculated using the Funding Agency.

Mandatory for Principal health service purchaser =

('34','35','20','55','A0') for the events reported in v015.0 files. This is regardless of the event end date reported in the Ver15.0 files..

Must be a valid code in the agency code table if the Principal health

service purchaser = '20', '35', '55'

Must be reported as 1236 if Principal health service purchaser = '35' Must be reported as 1237 if Principal health service purchaser = 'A0' For more details see Section 14.2 of the NMDS File Specification

v015.2

Verification rules

Collection methods

Related data

Source document

#### Gender code

**Definition** The person's biological sex.

Column name gender\_code

Table name fact\_nmd\_health\_event

Data type char(1)

Other names Sex type code

**Context** Required for demographic analyses.

**Layout** A

**Data domain** M = Male

F = Female U = Unknown I = Indeterminate

Guide for use Stored as Gender code.

Because it is possible for a person's sex to change over time, the Ministry of Health collects sex information for each health event, rather than relying on the data in the National Health Index (which does not include historical data).

"'U' codes must be updated as soon as possible after admission.

'I' codes are for use in cases, usually new-borns, where it is not possible to determine the sex of the healthcare user.

The term sex refers to the biological differences between males and females, while the term gender refers to a person's social role

(masculine or feminine).

Information collected for transsexuals and transgender people should be treated in the same manner, i.e., their biological sex reported. To avoid problems with edits, transsexuals undergoing a sex change operation should have their sex at time of hospital admission reported."

**Verification rules** Must be a valid code in the Gender code table.

The value in this field must be consistent with the diagnosis and procedures reported. If it is not, the record will be rejected from the

NMDS with a warning.

Generate warning if Gender code is 'U'.

Collection methods

Related data

Source document

# Gestation period

**Definition** Time measured from the date of mother's last menstrual period to the

date of birth and expressed in completed weeks.

Column name gestation\_period

Table name fact\_nmd\_health\_event

Data typevarchar2(2)Other namesGestation

**Context** Birth event.

Layout XX

**Data domain** XX = not stated

10 - 50 completed weeks

Guide for use

Verification rules Mandatory for birth events. Must not be supplied for other event types.

If outside 17 to 45 completed weeks, will only be accepted on

confirmation.

**Collection methods** 

Related data

Source document

# Health specialty code

**Definition** A classification describing the specialty or service to which a healthcare

user has been assigned, which reflects the nature of the services being

provided.

Column name health\_specialty\_code

Table name fact\_nmd\_health\_event

Data type varchar2(3)

Other names HSC, Service code, Department code

Context Healthcare user on discharge.

Layout

**Data domain**See the Health Specialty code table at http://www.health.govt.nz/nz-

health-statistics/data-references/code-tables/common-code-tables. For further information or a printed copy of the code table, contact Analytical

Services.

Guide for use Generalist and specialist subspecialty medical and surgical health

specialty codes were retired from 1 July 2001.

On 1 July 2007 the following changes took place:

M20: Endocrinology and Diabetology ..was discontinued and replaced with...

M95: Endocrinology M96: Diabetology

M24: Paediatric Endocrinology and Diabetology

..was discontinued and replaced with.. M97: Specialist Paediatric Endocrinology M98: Specialist Paediatric Diabetology

The need to separate diabetes out from other endocrinology events is because diabetes is the strategic area that the government has targeted and there is no other way to differentiate outpatient activity.

On 1 July 2008 the following changes took place:

P00 Antenatal services

P10 Delivery services [mother]

P11 Primary delivery services [midwife]

P20 Postnatal services [mother]

P30 Postnatal services [well newborn]

P35 Primary postnatal services [specialist]

Were retired and replaced with:

P60 Maternity services - mother [no community LMC]

P61 Maternity services - well newborn [no community LMC]

P70 Maternity services - mother [with community LMC]

P71 Maternity services - well newborn [with community LMC]

'With a Community LMC' should be defined as:

At the time of the event, the woman and her baby(s) are registered with and under the care of a Lead Maternity Carer (LMC) under Section 88 Notice for primary Maternity Services (see subpart DA). Registered being as defined in the notice (clause DA2). For clarity, this should not include women or babies who have been transferred over to secondary maternity, tertiary maternity or specialist neonatal services (clause DA8).

#### Note

- That this is the specialty on admission

Version 7.8 MoH 107 February 2016 - Community means not employed by the DHB - i.e., a section 88 claim will be made for this birth or postnatal care.

For 'Section 88 Notice for Primary Maternity Services' refer to the Ministry of Health website: http://www.health.govt.nz/our-work/life-stages/maternity-and-breastfeeding/maternity-services/primary-maternity-services-notice-section-88

New health specialty code for events with a discharge date on or after 1 July 2008:

D55 Non-weight bearing and other related convalescence

This Health Specialty Code is intended for use where a patient undergoes a period of convalescence at a step-down facility other than the facility where their main rehabilitation program will occur.

Verification rules

**Collection methods** The specialty reported to the NMDS should be the specialty for the

patient at the time of discharge.

Related data Purchase unit

Costweight

Source document

Source organisation

Version 7.8 MoH 108

# Length of stay

**Definition** Length of stay in a facility in days.

Column name length\_of\_stay

Table name fact\_nmd\_health\_event

Data type varchar2(5)

Other names LOS

Context

Layout NNNNN

**Data domain** 00001 - 99999

Guide for use Calculated for events with Event end datetime.

Date portion of Event end datetime minus date portion of Event start

datetime minus Event leave days.

Equates to midnights spent in hospital.

Verification rules

**Collection methods** 

Related data Event start datetime

Event end datetime Event leave days

Source document

### Location code

DefinitionBirth locationColumn namelocation\_code

Table name fact\_nmd\_health\_event

Data type integer

Other names Birth location code, Birth/death location code

Context Birth event.

Layout

Data domain

Guide for use

Verification rules Mandatory for birth events. Must not be supplied for other event types.

Must be a valid code in the Location code table.

Must match the Facility type code on the Facility table.

**Collection methods** 

Related data Facility code

Facility type

Source document

Source organisation Ministry of Health

# Major diagnostic category (MDC) code

**Definition** The Major Diagnostic Category (MDC) is a category generally based on

a medical classification that is associated with a particular medical speciality. MDCs are assigned by the DRG grouper program.

Column name mdc\_code

Table name fact\_nmd\_health\_event

Data type varchar2(2)

Other names

**Context** 

Layout NN

Data domain See the MDC code table on the Ministry of Health web site at

http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables. For further information or a printed copy of

the code table, contact Analytical Services.

Guide for use

Verification rules

**Collection methods** 

Related data MDC type

DRG codes DRG grouper type

Source document AR\_DRG Definitions Manual

# Major diagnostic category (MDC) type

**Definition** A code denoting which version of a grouper a Major Diagnostic

Category (MDC) code belongs to.

Column name mdc\_type

Table name fact\_nmd\_health\_event

Data type char(1)

Other names

Context

Layout A

Data domain A AN-DRG version 3.1

B AR-DRG version 4.1
C AR-DRG version 4.2
D AR-DRG version 5.0
E AR-DRG version 6.0
F AR-DRG version 6.0x

Guide for use Derived from the version of the grouper used to create the DRG code.

Verification rules

**Collection methods** 

Related data MDC code

DRG codes

DRG grouper type code

Source document

### Month of data

**Definition** Field identifying which month the dta belongs to

Column name month\_of\_data

Table name fact\_nmd\_health\_event

Data type varchar2(2)

Other names

**Context** Field to assist in compiling fiscal year datasets.

Layout XX

Data domain 01 - 12, XX

Guide for use

Verification rules Derived from the month of discharge. If Event end datetime is missing

then set to 'XX'.

**Collection methods** 

Related data Event end datetime

Financial year

Source document

## Mother's Encrypted NHI

**Definition** For birth events, the Mother's NHI in encrypted form.

Column name mothers\_encrypted\_hcu\_id

Table name fact\_nmd\_health\_event

Data typevarchar2(11)Other namesMother's NHI

Context

Layout

Data domain System-generated

Guide for use Only reported for Birth events

The NHI number is the cornerstone of the Ministry of Health's data collections. It is a unique 7-character identification number assigned to a healthcare user by the National Health Index (NHI) database. The NHI number uniquely identifies healthcare users, and allows linking between different data collections. It is encrypted in the NMDS to ensure privacy of individual records.

**VALIDATION** 

The first three characters of an NHI number must be alpha (but not 'l' or 'O'). The 4th to 6th characters must be numeric. The 7th character is a check digit modulus 11.

**ENCRYPTION** 

The NHI number is encrypted using a one-way encryption algorithm. The aim is to provide an encrypted number that can be sent across public (unsecured) networks.

public (unsecured) networks.

New numbers can be allocated by health providers who have direct access to the NHI Register. New NHI numbers are also allocated by

Sector Services for GPs and other primary care providers.

Verification rules Must be registered on the NHI database before the NHI number can be

used in the NMDS.

Collection methods NHI numbers are often included on patient notes and other patient

documentation.

Related data Encrypted NHI Number

Source document http://www.health.govt.nz/our-work/health-identity/national-health-index

**Source organisation** Ministry of Health

### NZ drg code

**Definition** A diagnosis-related group (DRG) code produced by the current DRG

grouper program version 6.0.

Column name nz\_drg\_code

Table name fact\_nmd\_health\_event

Data type varchar2(4)

Other names

Context Clinical demographic and administrative information within a health

event.

Layout

**Data domain** 801A - 963Z, A01Z - Z65Z

Guide for use A diagnosis-related group (DRG) code of clinical version 4.1, 4.2, 5.0,

6.0 or 6.0x produced by the current DRG grouper program version 6.0x which takes up to 30 diagnoses and 30 procedure codes in a health event and assigns a DRG code based on a complex algorithm.

The version 4 groupers used 20 codes. This provides another way of analysing event information based on classifying episodes of inpatient care into clinically meaningful groups with similar resource consumption.

Introduced on 1 July 2001 for DRG clinical version 4.1.

If the Event end datetime is between 1 July 2001 and 30 June 2002, this field contains a DRG code of clinical version 4.1.

If the Event end datetime is between 1 July 2002 and 30 June 2004, this field contains a DRG code of clinical version 4.2.

If the Event end datetime is between 1 July 2005 and 30 June 2011 this field contains a DRG code of clinical version 5

If the Event end datetime is between 1 July 2011 and 30 June 2013 this field contains a DRG code of clinical version 6

If the Event end datetime is on or after 1 July 2013, this field contains a DRG code of clinical version 6.0x

Calculated from:

- personal information (eg, Sex, Date of birth), and
- event information (eg, Admission date, Event end type), and
- diagnosis and procedure information in the appropriate ICD code for the DRG Grouper (ICD-10-AM 3rd Edition).
- Between 1 July 2004 and 30 June 2005, most hospitals supplied diagnosis and procedure information using ICD-10-AM 3rd Edition codes. As AR-DRG version 5.2 requires ICD-10-AM 2nd Edition codes, NMDS will map the 3rd edition codes supplied by hospitals to 2nd edition codes and use these to assign an AR-DRG 4.2 code.
- Between 1 July 2004 and 30 June 2008, most hospitals supplied diagnosis and procedure information using ICD-10-AM 3rd Edition codes. AR-DRG version 5.0 required no additional mapping.
- Between 1 July 2008 and 30 June 2011, the field contains a DRG from AR-DRG version 5.0 derived, if necessary, by mapping ICD-10-AM 6th Edition codes back to ICD-10-AM 3rd Edition Codes
- Between 1 July 2011 and 30 June 2013, the field contains a DRG from AR-DRG version 6.0, the derivation for which uses ICD-10-AM 6<sup>th</sup> Edition codes.
- Between 1 July 2013 and 30 June 2014, the field contains a DRG from AR-DRG version 6.0x, the derivation for which uses ICD-10-AM  $6^{\rm th}$  Edition codes.
- From 1 July 2014, the field contains a DRG from AR-DRG versions
   6.0x derived, if necessary, by mapping ICD-10-AM 8<sup>th</sup> Edition codes

Version 7.8 MoH 115 February 2016 back to ICD-10-Am 6th Edition codes.

External cause codes are not used by the grouper. It is recommended that hospitals prioritise diagnoses and procedure codes in order to present the grouper with the most severe diagnoses and operations.

Verification rules

**Collection methods** 

Related data Costweight code

Costweight
Purchase unit
PCCL
MDC code
MDC type

DRG grouper type code

Source document

**Source organisation** The logic for the DRG software is specified by the Health Services

Division of the Commonwealth Department of Health and Ageing,

Australia.

Version 7.8 MoH 116

## NZ resident flag

**Definition** A code identifying resident status at the time of this event.

Column name nz\_resident\_flag

Table name fact\_nmd\_health\_event

Data type char(1)

Other names HCU resident status, Residency, Resident status, HCU NZ resident

status

Context Used to identify overseas residents treated in New Zealand. Tied to

public funding of events.

Layout A

Data domain 'Y' = Permanent resident (New Zealand citizen or classified as

'ordinarily resident in New Zealand')

'N' = Temporary (not a New Zealand citizen, does not have New

Zealand 'ordinarily resident' status)

**Guide for use** A permanent resident is defined as a person who:

- resides in New Zealand and

- is not a person to whom Section 7 of the Immigration Act 1987 applies or a person obliged by or pursuant to that Act to leave New Zealand immediately or within a specified time or deemed for the purposes of

that Act to be in New Zealand unlawfully.

Verification rules

**Collection methods** 

Related data

Source document Immigration Act 1987

## Occupation code

**Definition** A code for an occupation of the healthcare user, classified according to

the Australian and New Zealand Standard Classification of

Occupations, 2013, Version 1.2 with effect from 1 July 2015, and the Statistics NZ Standard Classification of Occupations (NZSCO90) up

until 30 June 2015.

Column name occupation\_code

Table namefact\_nmd\_health\_event

Data type varchar2(6)

Other names

Context

Layout

Data domain 0111 - 999999. See the Occupation code table at

http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables. For further information or a printed copy of

the code table, contact Analytical Services.

Guide for use

Verification rules Optional.

**Collection methods** Occupation free-text is preferred.

Related data Occupation description

**Source document** Australian and New Zealand Standard Classification of Occupations,

2013, Version 1.2

NZSCO90 - Statistics NZ Standard Classification of Occupations

Source organisation Australian Bureau of Statistics and Statistics NZ

# Occupation free text

**Definition** A free-text description of the healthcare user's occupation.

Column name occupation\_free\_text

Table name fact\_nmd\_health\_event

**Data type** varchar2(70)

Other names Occupation free-text, Occupation text

Context

Layout

Data domain

Guide for use Introduced in November 2001.

Since September 2008, Cancer Registry staff have not been able to

populate or update this field.

Note that the NMDS is a better source of information about the occupation of healthcare users than is the Cancer Registry. This is because the Cancer Registry obtains this data while automatically creating cancer events from hospital discharge events, but most of these cancer events are subsequently rejected rather than registered.

Verification rules Optional

**Collection methods** Should be reported for cancer patients

Related data Occupation code

Source document

# Patient clinical complexity level (PCCL)

**Definition** Patient Clinical Complexity Level (PCCL) data identifies the clinical

severity of the patients symptoms, within the patient record.

Column name pccl

Table name fact\_nmd\_health\_event

Data type char(1)

Other names

Context

Layout

Data domain

**Guide for use** Relates only to DRG Grouper versions 4.1, 4.2, 5.0, 6.0 and 6.0x.

Serves the same purpose for DRG Grouper clinical versions 4.1, 4.2, 5.0, 6.0 and 6.0x as CCL does for DRG Grouper clinical versions 3.1

and 3.2.

In the AR-DRG Definitions Manual it says 'PCCL is a measure of the cumulative effect of a patient's complications and comorbidities, and is calculated for each episode. The calculation is complex and has been designed to prevent similar conditions from being counted more than

once'.

Verification rules

**Collection methods** 

Related data DRG code current

CCL

Source document AR-DRG Definitions Manual

**Source organisation** The logic for the DRG software is specified by the Health Services

Division of the Commonwealth Department of Health and Ageing,

Australia

# Pms unique identifier

**Definition** A unique local PMS identifier for a particular health event.

Column name pms\_unique\_identifier

Table name fact\_nmd\_health\_event

Data type varchar2(14)

Other names

Context

**Layout** Free text

Data domain

Guide for use This field is intended to be used to link NMDS events with the relevant

booking system entry.

With the Client system identifier, this field replaced the Local system health event identifier field in 2000. The Local system health event

identifier field was introduced in 1999.

Verification rules

Collection methods This should be a unique event identifier in your patient management

system. For security reasons, do not use the NHI number.

Related data Replaces the field previously known as Local system health event

identifier

Source document

# Principal diag 06 clin code

Definition A code used to classify the principal diagnosis/clinical description of a

condition.

Column name principal\_diag\_06\_clin\_code

Table name fact\_nmd\_health\_event

Data type varchar2(8)

Other names

Context

Layout

Must be a valid code in the ICD-9-CM-A  $2^{\rm nd}$  Edition – Australian Version of The International Classification of Diseases,  $9^{\rm th}$  Revision, Clinical Data domain

Modification, 2<sup>nd</sup> Edition.

Guide for use

Verification rules

**Collection methods** 

Related data

Source document

# Principal diag 10 clin code

**Definition** A code used to classify the clinical description of a condition.

Column name principal\_diag\_10\_clin\_code

Table name fact\_nmd\_health\_event

Data type varchar2(8)

Other names

Context

Layout See Collection method.

**Data domain** Must be a valid code in one of the ICD-10-AM 1st Edition - The

International Statistical Classification of Diseases and Related Health

Problems, 10th Revision, Australian Modification, 1st Edition.

Guide for use

Verification rules

**Collection methods** 

Related data

Source document

# Principal diag 11 clin code

**Definition** A code used to classify the clinical description of a condition.

Column name principal\_diag\_11\_clin\_code

Table name fact\_nmd\_health\_event

Data type varchar2(8)

Other names

Context

Layout See Collection method.

**Data domain** Must be a valid code in one of the ICD-10-AM 2nd Edition - The

International Statistical Classification of Diseases and Related Health

Problems, 10th Revision, Australian Modification, 2nd Edition

Guide for use

Verification rules

**Collection methods** 

Related data

Source document

# Principal diag 12 clin code

**Definition** A code used to classify the clinical description of a condition.

Column name principal\_diag\_12\_clin\_code

Table name fact\_nmd\_health\_event

Data type varchar2(8)

Other names

Context

Layout

**Data domain** Must be a valid code in one of the ICD-10-AM 3rd Edition - The

International Statistical Classification of Diseases and Related Health

Problems, 10th Revision, Australian Modification, 3rd Edition.

Guide for use

Verification rules

**Collection methods** 

Related data

Source document

# Principal diag 13 clin code

**Definition** A code used to classify the clinical description of a condition.

Column name principal\_diag\_13\_clin\_code

Table name fact\_nmd\_health\_event

Data type varchar2(8)

Other names

Context

Layout

**Data domain** Must be a valid code in ICD-10-AM 6th Edition - The International

Statistical Classification of Diseases and Related Health Problems, 10th

Revision, Australian Modification, 6th Edition.

Guide for use

Verification rules

**Collection methods** 

Related data

Source document

# Principal diag 14 clin code

**Definition** A code used to classify the clinical description of a condition.

Column name principal\_diag\_14\_clin\_code

Table name fact\_nmd\_health\_event

Data type varchar2(8)

Other names

Context

Layout

**Data domain** Must be a valid code in ICD-10-AM 8th Edition - The International

Statistical Classification of Diseases and Related Health Problems, 10th

Revision, Australian Modification, 8th Edition.

Guide for use

Verification rules

**Collection methods** 

Related data

Source document

### Prioritised ethnic code

**Definition** The most highly prioritised ethnicity of the three ethnic groups recorded

for the healthcare user, determined according to a Statistics NZ

algorithm.

Column nameprioritised\_ethnic\_codeTable namefact\_nmd\_health\_event

Data type varchar2(2)

Other names

**Context** Demographic information.

Layout NN

Data domain See the Ethnic code table on the Ministry of Health web site at

http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables. For further information or a printed copy of

the code table, contact Analytical Services.

Guide for use Ethnic codes are ranked on the Ethnic code table from '1' (highest

priority) to '21' (lowest priority), with '99' for not stated. Prioritised ethnicity is the healthcare user's ethnic code with the highest priority.

Prioritising ethnic codes simplifies analysis.

See Appendix: Guide for Use of Ethnic Codes.

Verification rules

**Collection methods** 

Related data Ethnic group

Ethnic group 2 Ethnic group 3

Source document

Source organisation Statistics NZ

# Private hospital flag

**Definition** Flag to indicate whether the health event was privately funded.

Column name private\_hospital\_flag

Table name fact\_nmd\_health\_event

Data type char(1)

Other names

Context

Layout A

Data domain 'Y' = Yes

'N' = No Null

Guide for use

Verification rules Is 'Y' if:

- Principal health service purchaser is '06' or '19', or

- Principal health service purchaser is '98' or blank and Facility type is

'02'.

**Collection methods** 

Related data Principal health service purchaser

Facility type

Source document

## Psychiatric leave end type

**Definition** A code describing how a period of leave ended for a committed mental

health patient.

Column name psychiatric\_leave\_end\_type

Table name fact\_nmd\_health\_event

Data type char(1)

Other names

**Context** A healthcare user is discharged on leave, then the event ends by

discharge or re-admission to hospital. Only for healthcare users committed under the Mental Health (Compulsory Assessment &

Treatment) Act 1992.

Layout A

Data domain D Discharged

E Died

R Returned to the same psychiatric institution T Transferred to another psychiatric institution

Guide for use Not reliably reported since 1993.

Healthcare users can be on leave for up to 2 years under the Act.

Verification rules Optional. Must only be present if Event end type is 'DL'.

Collection methods

Related data Psychiatric leave end date

Source document

### **Public birth**

**Definition** A flag to indicate whether a birth is publicly funded.

Column name public\_birth

Table name fact\_nmd\_health\_event

Data type char(1)

Other names

Context Birth event.

Layout

Data domain

Guide for use Not used.

Verification rules Is 'Y' if Principal health service purchaser is not '06' or '19' and Event

type code is 'BT'.

Only one Public birth flag must be 'Y' for any primary NHI number.

**Collection methods** 

Related data Principal health service purchaser

Source document

### Purchase unit

**Definition** Purchase unit indicates which contract the event is funded under.

Column name purchase\_unit

Table name fact\_nmd\_health\_event

Data type varchar2(10)

Other names

Context

Layout

Data domain

Guide for use It is derived directly from Health specialty.

Some events have a purchase unit of 'EXCLU' (i.e., not eligible). See the New Zealand Casemix Framework for Publicly Funded Hospitals including WIES methodology and Casemix Purchase Unit Allocation document for the criteria. http://www.health.govt.nz/nz-health-statistics/data-references/weighted-inlier-equivalent-separations.

Verification rules

**Collection methods** 

Related data DRG codes

Costweight code Health specialty code

**Source document** New Zealand Casemix Framework for Publicly Funded Hospitals

including WIES methodology and Casemix Purchase Unit Allocation

Source organisation Cost Weights Working Group

### Purchaser code

Definition

Principal health service purchaser - The organisation or body that purchased the healthcare service provided. In the case of more than one purchaser, the one who paid the most.

Column name purchaser\_code

fact nmd health event

Data type

Table name

varchar2(2)

Other names

Principal purchaser, Health purchaser, Purchaser code, PHP, PHS, Purchase code

Context

Layout XN

Data domain

See the Principal health service purchaser code table at http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables. For further information or a printed copy of the code table, contact Analytical Services.

Guide for use

Introduced on 1 July 1995.

From 1 July 1999, codes '01', '02', '03', and '04' were replaced by the code for base purchases ('13'), that is, the four Regional Health Authorities were integrated into one Health Funding Authority.

From 1 July 2004, codes '07', '08', '09', '10', '11', '12' and '14' were retired as they have been rolled into base funding and therefore are no longer required.

'A1' to A7' codes are only for health events resulting from workplace accidents that occurred in the one year for which the Accident Insurance Act 1998 applied.

See Appendix: Guide for use of NMDS Health Service Purchaser Codes.

If the Principal Health Service Purchaser Code is between 'A0' and 'A7', the Accident Flag should be set to 'Y' and the ACC Claim Number field should not be blank.

As from 1 July 2007 events with an end date outside the Principal health service purchaser code's start and end date range will be rejected. Events with an end date before 1 July 2007 and having a Purchaser Code with a start date before 1 July 2007 will not be rejected. For event type IM where there is no end date, the event start datetime is used when validating against the Purchaser Code's start and end dates.

Prior to 1 July 2007 acute, arranged and booking list cases would normally be assigned the base funding code ('13').

On or after 1 July 2007 acute or arranged cases should be reported with purchaser code 35- DHB Funded. The Additional Electives funding (Orthopaedics Initiative, Cataract Initiative and Additional Elective Services Initiative) should be reported as 35- DHB Funded. This is because the Ministry now pays the money to the DHB funder arm, who then contracts with the DHB provider arm, or makes IDF payments for the work.

Purchaser code 33 was introduced in 2013 for MoH funded screening programmes

All Accredited Employer acute treatment/visits should be reported with 35-DHB Funded purchaser code with the Accident Flag and ACC45 claim number. These are then included in the Acute Levy calculations the same as ACC patients.

Purchaser 17 (just like purchaser A0) is used for all post-acute/elective treatments or visits and should be invoiced directly to the Accredited Employer. Purchaser 17 activity is excluded from the Levy calculations because it is not acute and has been invoiced directly.

Privately funded cases would normally be assigned '06'.

If a specified purchaser for the health event has been identified, use that code.

For elective cases, use the appropriate insurer code.

Where the employer has a risk-sharing arrangement with their insurer, the insurer must still be recorded as the principal purchaser.

Refer to the booklet 'Accident Services - Who Pays?' available from

http://www.moh.govt.nz/notebook/nbbooks.nsf/0/9fecff85d44b17c8cc25709300001caa/\$FILE/AccidentServices.pdf for guidelines on coding acute accident patients.

**OVERSEAS VISITORS** 

If the healthcare user is an overseas resident who:

- does not meet the eligibility criteria for publicly-funded health services, including overseas residents from non-reciprocal countries and patients with pre-existing conditions from reciprocal agreement countries, use code '19' (Overseas chargeable)
- meets the eligibility criteria for publicly-funded health services, including students from any country with a valid visa and patients from countries with reciprocal health agreements, use code '20' (Overseas eligible).

Note: Codes '19' and '20' will be excluded from funding if the date portion of Event end datetime is before 1 July 2003.

For further information, see the Guide to Eligibility for Publicly-Funded Personal Health and Disability Services in

Version 7.8 MoH 133 February 2016 NMD Data Mart Data Dictionary

NMD Fact Health Event table

New Zealand on the Ministry of Health web site http://www.health.govt.nz/new-zealand-health-system/eligibility-

publicly-funded-health-services

Verification

Code must be present in the Purchaser code table.

rules

The date portion of Event end datetime must be on or prior to the Purchaser code end date (if populated).

Collection methods

Related data A

ACC claim number

Private Flag

Source document

Source organisation

Version 7.8 MoH 134 February 2016

### Referral date

**Definition** The date of the doctor's referral letter, or date presented for self-

referral, or date of transfer which resulted in this event, whichever date

is earlier. This date is required for select surgical procedures.

Column name referral\_date

Table name fact\_nmd\_health\_event

Data type date

Other names

**Context** Elective surgical events.

Layout

Data domain Valid dates

Partial dates are permissible. At a minimum the century and year must

be supplied.

Guide for use Not used.

Not reliably reported to the NMDS. From July 2000, this information is also collected in the Date of referral for first specialist assessment field in the National Booking Reporting System (NBRS), which has more

complete coverage.

If day is provided but month is omitted then the day will not be recorded. Incomplete dates are stored as 'ccyy0101' or 'ccyymm01' and a partial date flag associated with the date is set to the appropriate value.

Verification rules Optional.

Collection methods Required for total hip replacement, total knee replacement and coronary

artery bypass graft events.

Related data

Source document

# Suppression flag

**Definition** A flag signifying that the healthcare user has requested that details of

this event not be passed to the event summary extract for display in the

MWS system.

Column name suppression\_flag

Table name fact\_nmd\_health\_event

Data type char(1)

Other names

Context

Layout A

**Data domain** Y suppress this event summary

N allow this event summary to be displayed

Guide for use Providers should inform patients that their data will be sent to the

Ministry of Health for inclusion in the NMDS, and advise them that the event may also be viewed via the Medical Warning System. The patient must be given the option of suppressing the event from display on the

NMDS, but the patient does not have the right to object to the

information being stored on the NMDS.

Verification rules

Collection methods See Guide for Use

Related data

Source document

# Surgical priority

**Definition** A code defining the severity of a healthcare user's condition at the date

surgery was decided.

Column name surgical\_priority

Table name fact\_nmd\_health\_event

Data type char(1)

Other names

**Context** Elective surgical events.

Layout A

**Data domain** R Routine

S Semi-urgent U Urgent

Guide for use Not used.

Previously known as Severity code.

Not reliably reported to the NMDS. From July 2000, this information is also collected in the CPAC score field in the National Booking Reporting

System (NBRS), which has more complete coverage.

Verification rules Optional.

**Collection methods** 

Related data Date surgery decided

Source document

### TLA of domicile

**Definition** Territorial local authority of domicile.

Column name tla

Table name fact\_nmd\_health\_event

Data type varchar2(3)

Other names

**Context** Geographical aggregation.

Layout NNN

Data domain See TLA code table in Appendix.

Guide for use The TLA of domicile roughly equates to local council boundaries.

Populated from 1988.

Derived from the Ministry of Health mapping of Domicile code to TLA.

No code table exists.

Domicile code 3402 Oceanic - Chatham Islands is included in TLA 'other' as it is not a Land Authority and is classified as subregion 15

'Hawke's Bay' which is not shown in this table.

Verification rules

**Collection methods** 

Related data Domicile code

Source document

### Total hours on continuous positive airway pressure

**Definition** Total hours on continuous positive airway pressure - The total number

of hours a neonate (less than 29 days, or more than 29 days and less than 2500 g) is on CPAP during a perinatal episode of care.

Column name hours\_on\_cpap

Table name fact\_nmd\_health\_event

Data typevarchar2(5)Other namesCPAP hours

Context

Layout NNNNN

**Data domain** 00000 - 99999

Guide for use Hours on continuous positive airway pressure has been used in

determining the DRG code since 1 July 2001.

A CPAP procedure is:

- an ICD-10-AM 6th Edition Clinical codes of

9220900,9220901,9220902 (Clinical code type = 'O') or

- an ICD-10-AM 1st, 2nd, 3rd Edition Clinical code of 9203800 (Clinical code type = 'O'), or

- an ICD-9-CM or ICD-9-CM-A Clinical code of 93.90 (Clinical code type = 'O').

There is no specific procedure code for CPAP in ICD-10-AM 6th edition or ICD-10-AM 8<sup>th</sup> edition; it is included in the non invasive ventilation (NIV) codes:

9220900 [570] Management of noninvasive ventilatory

support, <= 24 hours

9220901 [570] Management of noninvasive ventilatory

support, > 24 and < 96 hours

9220902 [570] Management of noninvasive ventilatory

support, >= 96 hours

#### Note

The logical back mapping tables (from 6th edition to 3rd edition) convert the three NIV procedure codes (above) to the CPAP procedure code 9203800. Therefore, any data extract based on the CPAP procedure code 9203800 for events where the date portion of Event end datetime is on or after 1 July 2008 will include bilevel positive airway pressure [BiPAP] and intermittent positive pressure breathing [IPPB] and continuous positive airway pressure [CPAP].

#### Generate warning if infant is:

- more than 364 days old at Event end datetime, or
- between 28 and 364 days old and Weight on admission is more than 2500 g at Event end datetime.

### Generate warning if:

- more than 100, or
- more than calculated number of hours from Event start datetime to Event end datetime inclusive.

For records with the date portion of Event end datetime before 1 July 2008

Generate warning if present and a CPAP procedure (as defined in Guide for use above) is not present.

Generate warning if not present when a CPAP procedure (as defined in Guide for use above) is present, unless:

- Total hours on mechanical ventilation is present, or
- age at Event end datetime is more than 364 days, or

- age is between 28 days and 364 days and Weight on admission is more than 2500 g.

Generate warning if present and Health specialty code not in the P30 and P40 ranges.

For records where the date portion of Event end datetime is on or after 1 July 2008

Generate error if present and a NIV procedure (as defined in Guide for use above) is not present.

Records can be reported with an NIV procedure and no hours present if IPPB or BiPAP has been administered.

Generate warning if present and Health specialty code is not P61, P71 or in the P40 range.

Total hours on continuous positive airway pressure (CPAP) is used to capture the number of hours a patient is on CPAP during an episode of care. As in the Total hours on mechanical ventilation variable, part hours are rounded up. CPAP hours should not be collected when CPAP is used as a method of weaning from continuous ventilatory support or performed by endotracheal tube [ETT] or tracheostomy.

CPAP hours may be reported within the same event as mechanical ventilation hours. If CPAP is used to wean a patient from mechanical ventilation, the time on CPAP will be added to the hours on mechanical ventilation. Where CPAP is being used as a separate valid treatment modality in the same episode of care as mechanical ventilation, a CPAP (NIV) procedure must be coded and CPAP hours recorded.

#### CLINICAL CODING GUIDELINES

When coding in ICD-10-AM 6th edition NIV procedure codes should be assigned for all cases and calculation of hours are to be in accordance with the coding standard (ACS 1006 page 176).

NIV should not be assigned when it is used as a method of weaning from continuous ventilatory support (CVS) or performed by endotracheal tube [ETT] or tracheostomy.

NIV should not be coded when the patient brings in their own ventilatory support devices (eg, CPAP machine) into hospital. The CPAP 92038-00 [568] 1st, 2nd and 3rd procedure code should be assigned for any duration when required for infants.

Verification rules

Optional.

Collection methods

Related data

Total hours on mechanical ventilation

Source document

Source organisation

140 MoH

### Total Hours on mechanical ventilation

**Definition** The total number of hours on mechanical ventilation.

Column name hours\_on\_ventilation

Table namefact\_nmd\_health\_event

Data type varchar2(5)

Other names Hours on mechanical ventilation, HMV

Context Total hours for the health event irrespective of the specialty team

treating the patient

Layout NNNNN

**Data domain** 00000 - 99999

Guide for use Hours on mechanical ventilation has been used in determining the DRG

code since 1 July 1999. It may also trigger the mechanical ventilation

co-payment for eligible DRGs

Verification rules Optional.

Generate warnings if:

—not present when a Mechanical Ventilation procedure is present (i.e., ICD-10-AM, 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 6<sup>th</sup> or 8<sup>th</sup> Edition Clinical Code = 1388200, 1388201 or 1388202 (Clinical Code Type = 'O'); or ICD-9 or ICD-9-CM-A Clinical Code = 96.70 or 96.71 or 96.72 (Clinical Code Type = 'O'), and/or

—greater than the difference (calculated in hours) between the date portions of Event start datetime and Event end datetime.

The ICD-10-AM 8<sup>th</sup>-edition procedure code 9221100 must be assigned

to a health event record if and only if:

—the health specialty code in in P41, P42, P43, P61, or P71 and

—the submitted system ID is 14 and

—one of 1388200, 1388201, 1388202 has been assigned and —one of 9220900, 9220901, 9220902 has been assigned and —the sum of NIV and CVS hours is greater than or equal to 96.

#### **Collection methods**

When calculating the total hours on mechanical ventilation include all ventilated hours (excluding surgery). This includes all ventilation administered irrespective of the health specialty or team treating the patient. Calculation of the total hours on mechanical ventilation will commence from the time the patient is ventilated. If the patient has commenced ventilation prior to arriving to the hospital (e.g., on route in the ambulance), it will be calculated from the time of arrival.

Exclude time spent being ventilated while undergoing surgery (being ventilated while undergoing surgery is not an indicator of severity). Hours where the patient is in radiology or emergency care should be included in the total mechanical ventilation hours for reporting purposes.

Time spent weaning (regardless of the physical location in which the patient is treated) with other types of ventilation such as continuous positive airways pressure (CPAP) or intermittent mechanical ventilation (IMV) is included if the patient is still intubated. Apart from weaning as described, other forms of ventilation should not be included (e.g., non-intubated CPAP, IPPB, BiPAP).

When reporting the total hours on mechanical ventilation an incomplete hour is rounded up to the next hour; e.g., if the time ventilated is 98 hours 10 minutes, then the total hours on mechanical ventilation

Version 7.8 MoH 141 February 2016 reported will be '00099'. The minimum number of 'total hours on mechanical ventilation' reported is 1.

#### **CLINICAL CODING**

All hours on mechanical ventilation in the Emergency Department (ED) should be coded, whether the patient is intubated in ED or in the ambulance. If ventilation is commenced in the ambulance, it will be counted only from the time of hospitalisation.

Hours on continuous ventilatory support (CVS) (mechanical ventilation) should be interpreted as completed cumulative hours.

- 1. If more than one period of CVS (mechanical ventilation) occurs during the same hospitalisation when used for treatment (not weaning) should be added together. For example, if a patient is on CVS for the first day of their admission, then on CVS again on the fourth day of their admission, the CVS hours should be added together to arrive at the correct CVS procedure code.
- 2. ICD procedure coding includes all time spent ventilated from time of arrival to hospital (or time of intubation).
- 3. For ICD procedure coding the minimum number of completed hours is 1.
- 4. Partially completed hours are not counted when allocating a procedure code, i.e., they are rounded down for ICD procedure coding.

#### WORKED EXAMPLE

Patient brought in by ambulance at 10.32am. Patient goes into acute respiratory failure and was intubated and commenced ventilation in ED at 10.50am. Once the patient was stabilised he was admitted to ICU at 11.43am (day one). The next day (day two) the patient was transferred to theatre for surgery. Total time in theatre was 4 hours. The patient returned to ICU and remained ventilated until the next day (day three) when mechanical ventilation ceased and the patient was extubated at 12.32pm.

On day one patient commenced ventilation in ED at 10.50am and was extubated 12.32pm on day three. Total mechanical ventilation hours: (Day 1) 13hrs 10mins + (Day 2) 24hrs + (Day 3) 12.32hrs
Total hours on mechanical ventilation = 49 hours 42 minutes

#### Reporting total hours on mechanical ventilation:

49.42 hours minus 4 hours in theatre = 45.42 hours (rounded up) = 46 hours. 46 hours is to be reported in the total hours on mechanical ventilation field.

#### Procedure code assignment:

13882-01 [569] Management of continuous ventilatory support, > 24 and < 96 hours As per the coding guidelines the total hours used in order to assign the correct procedure code would be 49 hours.

Related data

Total hours on continuous positive airway pressure Total noninvasive ventilation hours

Source document

See the AR-DRG manual

Source organisation

Version 7.8 MoH 142

143

#### Total ICU Hours

**Definition** Total duration of stay (hours) in an Intensive Care Unit (ICU) during this

episode of care.

Column name total\_icu\_hours

Table name fact\_nmd\_health\_event

Data type number(5)

Other names

**Context** Total hours for the health event.

Layout NNNNN

Data domain 00001-99999 or NULL

Guide for use An intensive care unit (ICU) is a specially staffed and equipped,

separate and self-contained section of a hospital for the management of patients with life-threatening or potentially life-threatening conditions. Such conditions should be compatible with recovery and have the potential for an acceptable future quality of life. An ICU provides special expertise and facilities for the support of vital functions, and utilises the skills of medical nursing and other staff experienced in the

management of these problems.

Smaller hospitals may have an ICU combined with an HDU and/or a CCU. Not all admissions to such a unit will be an Intensive Care.

Events with the date portion of Event end datetime before 1 July 2008 and a value in the Total ICU hours will not be loaded in to the NMDS. Events with the date portion of Event end datetime on or after 1 July 2008 must have a null value or positive for the field Total ICU hours. A warning is generated if the total ICU hours reported in an NMDS event (with the date portion of Event end datetime on or after 1 July 2008) is greater than the length of stay. If ICU treatment started in the ED before admission then it is possible that the hours are greater than the length of stay but this is unusual.

If the patient has more than one period in ICU during this hospital episode, the total duration of all such periods is reported. Hours in a High Dependency Unit (HDU) and in a Neonatal Intensive Care Unit (NICU) are not to be included.

An incomplete hour is rounded up to the next hour; eg, if the total time in the care of the ICU team during the event is 98 hours 10 minutes, then the reported time will be '99'.

Verification rules Optional. If reported, must be positive

**Collection methods** 

Related data

Source document

### Total NIV hours

**Definition** The total number of hours on noninvasive ventilation during an episode

of care.

Column name total\_niv\_hours

Table name fact\_nmd\_health\_event

**Data type** number(5)

Other names

Context

Layout

Data domain 00001-99999 or NULL

Guide for use Noninvasive ventilation (NIV) refers to all modalities that assist

ventilation without the use of an ETT or

tracheostomy. Noninvasive devices include: face mask, mouthpiece,

nasal mask, nasal pillows, nasal

prongs, nasal tubes and nasopharyngeal tubes.

Types/modes of noninvasive ventilatory support are:

Bi-level positive airway pressure [BiPAP] Continuous positive airway pressure [CPAP]

Intermittent mask [CPAP]

Intermittent positive pressure breathing [IPPB] Intermittent positive pressure ventilation [IPPV]

Noninvasive mask ventilation [NIMV] Noninvasive pressure ventilation [NIPV]

Total hours on noninvasive ventilation (NIV) is used to capture the

number of hours a patient is on NIV

during an episode of care. As in the total hours on mechanical

ventilation variable, part hours are

rounded up.

NIV hours should not be collected when NIV is used as a method of

weaning from continuous ventilatory

support (CVS) or performed by endotracheal tube (ETT) or

tracheostomy. If NIV is used to wean a

patient from CVS, the time on NIV will be added to the hours on CVS.

NIV hours may be reported within the same event as mechanical

ventilation hours. Where NIV is being

used as a separate valid treatment modality in the same episode of care as CVS, a NIV procedure must be coded and NIV hours recorded.

Subsequent periods of NIV when used for treatment (not weaning) should be added together.

#### CLINICAL CODING AND REPORTING GUIDELINES

When coding in ICD-10-AM 6th edition and ICD-10-AM 8<sup>th</sup> Edition NIV procedure codes 92209-00, 92209-01 and 92209-02 [570] should be assigned for all cases and calculation of hours are to be in accordance with Australian Coding Standard (ACS 1006 page 176).

Hours on noninvasive ventilation (NIV) should be interpreted as completed cumulative hours.

For ICD coding the minimum number of completed hours is 1. The minimum number reported for the field 'Total hours on noninvasive ventilation' is 1.

If more than one period of NIV occurs during the same episode of care when used for treatment (not

weaning) should be added together. For example, if a patient is on NIV

for the first day of their

admission, then on NIV again on the fourth day of their admission, the NIV hours should be added

together to arrive at the correct NIV procedure code.

Partially completed hours are not counted when allocating a procedure code, eg, they are rounded down

for ICD procedure coding but rounded up for calculating the total NIV hours field.

NIV should not be assigned when it is used as a method of weaning from continuous ventilatory support

(CVS) or performed by endotracheal tube (ETT) or tracheostomy.

NIV should not be coded when the patient brings in their own ventilatory support devices (eg, CPAP machine) into hospital.

#### Verification rules

Optional. If reported, must be positive integer or null.

The ICD-10-AM 8th-edition procedure code 9221100 must be assigned to a health event record if and only if:

- —the health specialty code in in P41, P42, P43, P61, or P71 and
- —the submitted system ID is 14 and
- —one of 1388200, 1388201, 1388202 has been assigned and
- —one of 9220900, 9220901, 9220902 has been assigned and
- —the sum of NIV and CVS hours is greater than or equal to 96.

#### Collection methods

Related data

Total hours on mechanical ventilation

Source document

Source organisation

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### Transaction id

**Definition** A sequential number within the batch. With the Batch ID, this forms a

unique identifier for each transaction.

Column name transaction\_id

Table name fact\_nmd\_health\_event

Data type integer

Other names

Context

Layout

Data domain

Guide for use Generated by the load process. Used internally for reference.

Verification rules

**Collection methods** 

Related data

Source document

### Weight on admission

**Definition** The weight in grams at time of admission for infants less than 29 days

old.

Column name weight\_on\_admission

Table name fact\_nmd\_health\_event

Data type integer

Other names HCU weight on admission, Admission weight

Context Used in DRG calculations.

Layout NNNN

Data domain 0001 - 9999 grams

Guide for use A reported admission weight of less than 2500 grams for infants older

than 28 days means these infants are allocated to the low-weight neonatal DRGs. Failure to supply Weight on admission data will result

in inappropriate DRG code assignment.

Records reporting 0001 to 0399 grams are returned with a warning message that weight on admission is unusually low. Hospitals will need to confirm this value before the record will be loaded into the NMDS.

This is not the same field as Birthweight. In some instances the weight on admission of previously discharged neonates may be the same as the recorded birthweight, but this will not generally be the case. There will be instances when the weight on admission is lower than that recorded at birth.

The Ministry of Health started collecting this information on 1 July 1995.

With the introduction of ICD-10-AM 2nd Edition, this field should be reported for all infants:

- aged less than 29 days, or

- aged between 29 and 365 days (inclusive) who weigh less than 2500

g.

It may be optionally sent for any infant less than one year old. For newborn infants, weight on admission will be identical to the birth weight. New-born infants discharged and readmitted to the same or another healthcare facility after birth will need to have their weight on admission for the subsequent event recorded and reported.

If not known, the default is '9000'.

Verification rules Mandatory if age at admission is less than 29 days.

Optional for all babies between 29 and 365 days old (inclusive) who

weigh less than 2500 g.

Collection methods

Related data Birthweight

DRG code (used as key input for the AR-DRG grouper, so many of

these rules are derived from the grouper logic)

Source document

#### Year of data

**Definition** Field identifying which calendar year data belongs to.

Column name year\_of\_data

Table name fact\_nmd\_health\_event

Data type varchar2(4)

Other names Calendar year

Context

Layout CCYY

Data domain Range from 1960, XXXX.

Guide for use Almost all data requests are based on a time period, the main ones

being calendar year and fiscal year.

The earliest year on the database in 1923.

Verification rules Derived from year of discharge where present. If Event end datetime is

missing then set to 'XXXX'.

**Collection methods** 

Related data Event end datetime

Source document

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### NMD Psych leave end type table

Table namedim\_psych\_lv\_end\_type

**Definition** This table holds values associated with how a period of psychiatric

leave ended for a committed mental patient.

Primary key dim\_psych\_lv\_end\_type\_key

Business key psychiatric\_leave\_end\_type

Guide for use

Relational rules

Data content

### Psychiatric leave description

**Definition** Description for how a period of leave ended for a committed mental

health patient.

Column name psychiatric\_leave\_description

Table namedim\_psych\_lv\_end\_type

Data type varchar2(70)

Other names

Context

Layout

Data domain Free text short description field

Guide for use See psychiatric\_leave\_end\_type in this document.

Verification rules

**Collection methods** 

Related data psychiatric\_leave\_end\_type

Source document

### Psychiatric leave end type

**Definition** A code describing how a period of leave ended for a committed mental

health patient.

Column name psychiatric\_leave\_end\_type

Table name dim\_psych\_lv\_end\_type

Data type char(1)

Other names

**Context** A healthcare user is discharged on leave, then the event ends by

discharge or re-admission to hospital. Only for healthcare users committed under the Mental Health (Compulsory Assessment &

Treatment) Act 1992.

Layout A

Data domain D Discharged

E Died

R Returned to the same psychiatric institution T Transferred to another psychiatric institution

Guide for use Not reliably reported since 1993.

Healthcare users can be on leave for up to 2 years under the Act.

Verification rules Optional. Must only be present if Event end type is 'DL'.

Collection methods

Related data Psychiatric leave end date

Source document

# **Appendix A: Logical to Physical Table Mapping**

The following list shows the mapping of the logical, or business, table name to the actual physical table name.

Logical (Business) Table Name	Physical Table Name
NMD Admission Source table	dim_admission_source
NMD Admission Type table	dim_admission_type
NMD Condition Onset Flag Required From Table	dim_nmd_fac_cond_onset_rqd_dte
NMD Psych leave end type table	dim_psych_lv_end_type
NMD Fact Diagnosis Procedure Table	fact_nmd_diagnosis_procedure
NMD Fact Event Legal Status table	fact_nmd_event_legal_status
NMD Fact Health Event table	fact_nmd_health_event

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# **Appendix B: List of Shared Dimensions**

Dimension tables are the descriptive or lookup-type tables that link to fact tables. This data mart has a number of shared Dimension tables. The definitions for these dimensions are held in a separate data dictionary called "SHARED Dimensions". The table below lists the shared dimensions within this data mart.

Dimension Table	Description
Affiliation table (dim_affiliation)	This table is a matrix of gender and ethnicity code combination. Each row denotes the gender and ethnicity combination applicable to a person at the time of a transaction, i.e. it does not change over time.
Clinical Code table (dim_clinical_code)	A validation table and a repository of all codes contained in: - ICD-9-CM-A 2nd Edition - Australian Version of The International Classification of Diseases, 9th Revision, Clinical Modification, 2nd Edition - ICD-10-AM 1st Edition - The International Stati
Country table (dim_country)	This table holds a list of all countries. Used to provide details of the health care user's country of birth.
Diagnosis Type table (dim_diagnosis_type)	This dimension table hold the details of the diagnosis type and the associated diagnosis type description.
DRG table (dim_drg)	Dimension table of Diagnostic Related Groups (DRG).
Event End Type table (dim_event_end_type)	This table holds values that describe the end type to the HCU event.
Event Type table (dim_event_type)	This table holds values that describe the event type for the HCU event.
Geo table (dim_geo)	This reference table contains a geographical breakdown of New Zealand at the level of Domicile Code.  Each row of the table describes a single Domicile Code, and locates it within broader geographical definitions eg DHB.
Health Care User table (dim_health_care_user)	This reference table contains information about all people who have received healthcare directly from healthcare providers.
Health Specialty table (dim_health_specialty)	A classification describing the specialty or service to which a healthcare user has been assigned, which reflects the nature of the services being provided.
Legal Status table (dim_legal_status)	The legal status of a healthcare user under the appropriate section of the Mental Health (Compulsory Assessment and Treatment) Act 1992, the Alcoholism and Drug Addiction Act 1966, the Intellectual Disability (Compulsory Care and Rehabilitation) Act 2003,
Occupation table (dim_occupation)	This dimension table holds values for the occupation of the health care user.
Purchase Unit table (dim_purchase_unit)	The purchase unit (PU) indicates what contract the event is funded under. PUs are in fact a classification system. PUs are a means of quantifying (volume) and valuing (price) a service.
Purchaser Code table (dim_purchaser_code)	This table holds values that defines the organisation or body that purchased the healthcare service provided.
dim_submitted_coding_system (dim_submitted_coding_system)	

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# **Appendix C: List of Views**

The table views used in this datamart are shown below.

View Name	Description
Admission Age view (dim_admission_age)	A view of the shared Age Band dimension table.
Birth Date view (dim_birth_date)	A view of the shared Global Time dimension table.
Birth Location view (dim_birth_location)	A view of the Location table.
Discharge Age view (dim_discharge_age)	A view of the shared Age Band dimension table.
DRG v31 view (dim_drg_v31)	
Event Agency view (dim_event_agency)	A view of the shared Agency Facility dimension table.
dim_event_end_date (dim_event_end_date)	
dim_event_facility (dim_event_facility)	
Event Facility Type view (dim_event_facility_type)	
dim_event_start_date (dim_event_start_date)	
Excluded purchase unit dimension (dim_exclu_purchase_unit)	
Facility transfer from dimension (dim_facility_transfer_from)	
Facility transfer to dimension (dim_facility_transfer_to)	
dim_first_consult_date (dim_first_consult_date)	
dim_last_updated_date (dim_last_updated_date)	
Mothers Age view (dim_mothers_age)	A view of the shared Age Band dimension table.
dim_pd_06_clinical_code (dim_pd_06_clinical_code)	
dim_pd_10_clinical_code (dim_pd_10_clinical_code)	
dim_pd_11_clinical_code (dim_pd_11_clinical_code)	
dim_pd_12_clinical_code (dim_pd_12_clinical_code)	

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NMD Data Mart Data Dictionary dim\_procedure\_acc\_date (dim\_procedure\_acc\_date)

A view of the shared Global Time dimension table.

Appendix C: List of Views

Psych leave end date view (dim\_psych\_lv\_end\_date)

dim\_referral\_date (dim\_referral\_date)

dim\_surg\_decided\_date
(dim\_surg\_decided\_date)

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### **Appendix D: Data Dictionary Template**

#### Introduction

This appendix explains how data element attributes are organised in the data dictionary template.

#### Order of elements

Within the dictionary, elements are organised by table, and then alphabetically. An alphabetical index at the back of the data dictionary (Appendix I) and the graphical data model are intended to assist the user in finding specific elements.

#### **Template**

This table explains the template.

Administrative status

The operational status (e.g., CURRENT, SUPERSEDED) of the data element. No SUPERSEDED data elements will be included in the Dictionaries.

Reference ID

A code that uniquely identifies the data element. If the data element is used in more than one collection, it should retain its Reference ID wherever it appears.

Version number

A version number for each data element. A new version number is allocated to a data element/concept when changes have been made to one or more of the following attributes of the definition:

- name
- definition
- data domain, e.g., adding a new value to the field.

Elements with frequently updated code tables, such as the Facility code table, will not be assigned a new version for changes to data domain.

Version date

The date the new version number was assigned.

#### Identifying and defining attributes

Name

A single or multi-word designation assigned to a data element. This appears in the heading for each unique data definition in the Dictionaries. Previous names for the data element are included in the Guide for Use section.

Data element type

DATA ELEMENT—a unit of data for which the definition, identification, representation and permissible values are specified by means of a set of attributes.

DERIVED DATA ELEMENT—a data element whose values are derived by calculation from the values of other data elements.

COMPOSITE DATA ELEMENT—a data element whose values represent a grouping of the values of other data elements in a specified order.

Definition

A statement that expresses the essential nature of a data element and its differentiation from all other data elements.

Context (optional)

A designation or description of the application environment or discipline in which a name is applied or from which it originates. This attribute may also include the justification for collecting the items and uses of the information.

#### Relational and representational attributes

Data type

The type of field in which a data element is held. For example, character, integer, or numeric.

Field size

The maximum number of storage units (of the corresponding data type) to represent the data element value. Field size does not generally include

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Appendix D: Data Dictionary Template

characters used to mark logical separations of values, e.g., commas, hyphens or slashes.

Layout

The representational layout of characters in data element values expressed by a character string representation. For example:

- 'CCYYMMDD' for calendar date - 'N' for a one-digit numeric field
- 'A' for a one-character field
- 'X' for a field that can hold either a character or a digit, and
- '\$\$\$,\$\$\$, for data elements about expenditure.

Data domain

The permissible values for the data element. The set of values can be listed or specified by referring to a code table or code tables, for example, ICD-10-AM 2nd Edition.

Guide for use (optional)

Additional comments or advice on the interpretation or application of the data element (this attribute has no direct counterpart in the ISO/IEC Standard 11179 but has been included to assist in clarification of issues relating to the classification of data elements). Includes historical information, advice regarding data quality, and alternative names for this data element.

Verification rules (optional)

The rules and/or instructions applied for validating and/or verifying elements, in addition to the formal edits.

Collection methods – Guide for providers (optional)

Comments and advice concerning the capture of data for the particular data element, including guidelines on the design of questions for use in collecting information, and treatment of 'not stated' or non-response (this attribute is not specified in the ISO/IEC Standard 11179 but has been added to cover important issues about the actual collection of data).

Related data (optional)

A reference between the data element and any related data element in the Dictionary, including the type of this relationship. Examples include: 'has been superseded by the data element...', 'is calculated using the data element...', and 'supplements the data element...'.

#### Administrative attributes

Source document (optional)

The document from which definitional or representational attributes originate.

Source organisation (if available)

The organisation responsible for the source document and/or the development of the data definition (this attribute is not specified in the ISO/IEC Standard 11179 but has been added for completeness). The source organisation is not necessarily the organisation responsible for the ongoing development/maintenance of the data element definition. An example of a source organisation is the National Data Policy Group (NDPG).

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# **Appendix E: Code Table Index**

Code table	Location
Admission Source code table	http://www.health.govt.nz/nz-health-statistics/data-
	references/code-tables/common-code-tables/admission-
Admission Type and table	source-code-table
Admission Type code table	http://www.health.govt.nz/nz-health-statistics/data- references/code-tables/common-code-tables/admission-
	type-code-table
Agency code table	http://www.health.govt.nz/nz-health-statistics/data-
rigono, codo table	references/code-tables/common-code-tables/agency-
	code-table some some some some some some some som
Agency Type code table	http://www.health.govt.nz/nz-health-statistics/data-
	references/code-tables/common-code-tables/agency-
	type-code-table
Birth/Death Location code table	http://www.health.govt.nz/nz-health-statistics/data-
	references/code-tables/common-code-tables/birth-death-
Olivinal and table	location-code-table
Clinical Code Table Type and table	See Clinical code on page 39
Clinical Code Table Type code table	http://www.health.govt.nz/nz-health-statistics/data- references/code-tables/common-code-tables/clinical-
	code-type
Clinical Coding System code table	http://www.health.govt.nz/nz-health-statistics/data-
omnour ocuming dyonom ocus name	references/code-tables/common-code-tables/clinical-
	coding-system-code-table
Country of Birth code table	http://www.health.govt.nz/nz-health-statistics/data-
	references/code-tables/common-code-tables/country-
	birth-code-table
Domicile code table	http://www.health.govt.nz/nz-health-statistics/data-
	references/code-tables/common-code-tables/domicile-
DDC and table	code-table
DRG code table	http://www.health.govt.nz/nz-health-statistics/data- references/code-tables/common-code-tables/drg-code-
	table
DRG Grouper Type code table	http://www.health.govt.nz/nz-health-statistics/data-
2.10 G. Gapor Type code table	references/code-tables/common-code-tables/drg-grouper-
	code-table
Ethnicity code table	http://www.health.govt.nz/nz-health-statistics/data-
	references/code-tables/common-code-tables/ethnicity-
	code-tables
Event Clinical Code Type code table	http://www.health.govt.nz/nz-health-statistics/data-
	references/code-tables/common-code-tables/event-
Event Type code table	clinical-code-type-code-table http://www.health.govt.nz/nz-health-statistics/data-
Event Type code table	references/code-tables/common-code-tables/event-type-
	code-table
Facility code table	http://www.health.govt.nz/nz-health-statistics/data-
•	references/code-tables/common-code-tables/facility-code-
	table
Facility Type code table	http://www.health.govt.nz/nz-health-statistics/data-
	references/code-tables/common-code-tables/facility-type-
Health Occasion and Add	code-table
Health Specialty code table	http://www.health.govt.nz/nz-health-statistics/data-
	references/code-tables/common-code-tables/health- specialty-code-table
Legal Status code table	http://www.health.govt.nz/nz-health-statistics/data-
Logal Glalus Gode lable	references/code-tables/common-code-tables/legal-status-
	code-table
MDC code table	http://www.health.govt.nz/nz-health-statistics/data-
	references/code-tables/common-code-tables/mdc-code-

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#### NMD Data Mart Data Dictionary

Appendix D: Data Dictionar	v Template
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THIND Data Mart Data Dictionary	Appendix B. Data Dictionary Template
	table
MDC Type code table	See MDC type on page 141
Occupation code table	http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables/occupation-code-table
Principal Health Service Purchaser code table	http://www.health.govt.nz/nz-health-statistics/data- references/code-tables/common-code-tables/principal- health-service-purchaser-code-table
Psychiatric Leave End code table	http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables/psychiatric-leave-end-code-table

# Code tables on web site

For code tables on the Ministry of Health web site go to <a href="http://www.health.govt.nz/nz-health-statistics/data-references/code-tables">http://www.health.govt.nz/nz-health-statistics/data-references/code-tables</a> For further information contact Analytical Services. Contact details are given at the front of this dictionary.

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# Appendix F: Logical Groups of Elements

**Health Event (Administrative)** 

Admission source code

Admission type code

Client system identifier

Event end date

Event end type code

Event ID

Event leave days

Event local identifier

Event start date

Event summary suppress flag

Event supplementary information

Event type code

Health specialty code

Length of stay

Mother's Encrypted NHI

Principal health service purchaser

Private flag

PMS unique identifier

#### **Healthcare User**

Age at admission

Age at discharge

Country of birth code

Date of birth

Date of Birth flag

Domicile code

Encrypted NHI number

Ethnic group codes

NHI number

NZ Resident Status

Occupation code

Occupation free-text

Prioritised ethnicity

Sex

#### DRG

AN-DRG grouper code version 3.1

CCL

Cost Weight Code

Cost Weights

DRG code

DRG grouper type code

**Excluded Purchase Unit** 

MDC code

MDC type

NZ DRG code current

**PCCL** 

Purchase unit

#### **Birth Event**

Age of mother

Birth location

Birth status

Birthweight

Gestation period

#### **Mental Health Events**

Legal status code

Legal status date

Psychiatric leave end code Psychiatric leave end date

#### Clinical

Clinical code

Clinical code type

Clinical coding system ID

Diagnosis number

Diagnosis sequence

Diagnosis type

Diagnosis/procedure description

Operation/procedure date

Total hours on mechanical ventilation

Total hours on CPAP

**Total ICU Hours** 

Weight on Admission

#### **External Cause Events**

ACC claim number

Accident flag

External cause date of occurrence

#### **Common Groupings**

Area unit code

Domicile code description

Domicile code status

Financial year

Month of data

Region of agency of treatment

Region of treatment

TLA of domicile

Year of census

Year of data

#### **Agencies and Facilities**

Agency address

Agency closing date

Agency code

Agency name

Agency opening date

Agency type code

Facility address

Facility closing date

Facility code

Facility name

Facility opening date Facility Transfer From

Facility Transfer To

Facility type

WIES Agency Code

WIES Agency From Date

WIES Agency To Date

WIES Facility Code

WIES Facility From Date

WIES Facility To Date

#### **File and Record Administration**

Batch ID

Date updated

Transaction ID

### **Appendix G: Collection of Ethnicity Data**

#### Introduction

This appendix contains information about collecting and coding ethnic group code data. To help with correct allocations of ethnicities, it includes a detailed list of ethnicities and their corresponding codes.

# Points to remember

- Ethnicity is self-identified and can change over time.
- The Ministry of Health (MOH) can record up to three ethnic group codes for a healthcare user.
- An algorithm is used to automatically prioritise ethnic group codes if more than one is reported.
- If a person chooses not to specify their ethnicity, it should be recorded using a residual code such as '94' (Don't Know), '95' (Refused to Answer) or '99' (Not specified), not as '61' (Other).
- The NHI database should be updated if a healthcare user provides a more specific or different specific ethnicity than that already held for that person.

#### **About ethnicity**

The term 'ethnic group' is defined as 'a group of people who have culture, language, history or traditions in common.' Ethnicity is not the same as race, ancestry, or country of birth.

Because ethnicity is self-identified, it can change over time. This is why MOH collects ethnicity data whenever information is collected for different datasets, rather than relying on the National Health Index (which does not include historical data).

Collecting ethnicity data has always been problematic because of the reluctance of some data providers to collect the information, the unwillingness of some healthcare users to label themselves, and the confusion between ethnicity, nationality, citizenship, and race.

#### **Purpose**

Information about ethnicity is used extensively in planning and resourcing health services, developing and monitoring health policies, and measuring health outcomes.

#### Collection of data

It is very important that the ethnicity data from the health sector is collected in the same way as the data in the Census because rates of hospitalisation are calculated by comparing the two datasets (to determine proportions of the population). The 2001 Census question is provided below as a guide.

**Important:** For MOH collections, up to three ethnic group codes can be collected for a healthcare user. Providers should make sure that healthcare users are aware of this. MOH stores all reported ethnic group codes, and also prioritises them based on a Statistics NZ algorithm.

Mark the space or spaces that apply to you.
New Zealand European
Māori
Samoan
Cook Island Māori
Tongan
Niuean
Chinese
Indian
other (such as Dutch, JAPANESE,
Tokelauan). Please state:

#### Coding data

Use the Classification of Ethnicity table below to code the healthcare user's ethnic group.

If they have ticked one or more specific ethnicities, or if they have ticked 'other' and written in an ethnicity, look on the table to find the code.

If they have written an invalid ethnicity, such as 'Kiwi' or 'Mainlander', which does not map to any item on the code table, or if they have ticked 'other' but not stated an ethnicity, you can:

- discuss this with them and encourage them to choose a valid ethnic group
- · ignore it if one or more other ethnicities are provided, or
- code as '99' (Not specified).

If they write 'New Zealander', this can be coded as '11' (New Zealand European)

If they have written 'Pakeha', this can be coded as '11' (New Zealand European).

# 'Not Specified' and 'Other'

If a person chooses not to answer the ethnicity question, record their ethnicity response with an appropriate residual code such as '95' (Refused to Answer) or '99' (Not specified).

**Important:** The code '61' (Other) applied to only 0.037% of the New Zealand population in the 2006 census. It is limited to about 5 ethnic groups (such as Inuit/Eskimos, North, Central or South American Indians, Seychelles Islanders, and Mauritians). It must not be used as a generic 'other' code.

Recording ethnicity as 'Other' or 'Not specified' skews statistics on rates of hospitalisation and this affects health policy. Where possible, encourage healthcare users to choose a valid ethnic group.

# Prioritisation of ethnicity

Many National Data Collections include Prioritised ethnicity. This is the most highly prioritised ethnicity where multiple ethnicity responses have been recorded for the healthcare user (either submitted with the health event/service or extracted from the NHI as part of the data load process). Prioritosation is determined according to a Statistics NZ

Algorithm and prioritising ethnic codes simplifies analysis.

Each of the ethnic group codes is prioritised using the mappings in the table below.

Ethnic code	Ethnic code description	Priority
10	European not further defined	21
11	New Zealand European / Pakeha	22
12	Other European	20
21	Maori	1
30	Pacific Peoples not further defined	9
31	Samoan	7
32	Cook Island Maori	6
33	Tongan	5
34	Niuean	4
35	Tokelauan	2
36	Fijian	3
37	Other Pacific Peoples	8
40	Asian not further defined	14
41	Southeast Asian	10
42	Chinese	12
43	Indian	11
44	Other Asian	13
51	Middle Eastern	17
52	Latin American / Hispanic	15
53	African (or cultural group of African origin)	16
54	Other (retired on 01/07/2009)	19
61	Other Ethnicity	18
94	Don't Know	94
95	Refused to Answer	95
97	Response Unidentifiable	97
99	Not stated	99

# Detailed code table

The codes used to report ethnicity to MOH are taken from the Statistics NZ Statistical Standard for Ethnicity 2005. This classification is a very detailed 5-digit code: only the first two digits (shown in the table below) are reported to MOH.

Use this table to code healthcare user's self-identified ethnicities.

MOH Ethnicity code	Country of Ethnicity Affiliation
37	Admiralty Islander
44	Afghani
53	African American
53	African nec
53	African nfd
12	Afrikaner
32	Aitutaki Islander
12	Albanian
51	Algerian
12	American (US)
51	Arab
52	Argentinian
12	Armenian
44	Asian nec
40	Asian nfd
51	Assyrian
32	Atiu Islander
37	Austral Islander
12	Australian
37	Australian Aboriginal
12	Austrian
37	Banaban
44	Bangladeshi
37	Belau/Palau Islander
12	Belgian
12	Belorussian
43	Bengali
37	Bismark Archipelagoan
52	Bolivian
12	Bosnian
37	Bougainvillean
52	Brazilian
12	British nec
12	British nfd
12	Bulgarian
12	Burgher
41	Burmese
12	Byelorussian
41	Cambodian
42	Cambodian Chinese
12	Canadian
37	Caroline Islander
12	Celtic nfd
61	Central American Indian
37	Chamorro
12	Channel Islander

MOH Ethnicity code	Country of Ethnicity Affiliation
52	Chilean
42	Chinese nec
42	Chinese nfd
52	Colombian
32	Cook Island Maori nfd
12	Cornish
12	Corsican
52	Costa Rican
52	Creole (Latin America)
53	Creole (US)
12	Croat/Croatian
12	Cypriot nfd
12	Czech
12	Dalmatian
12	Danish
12	Dutch/Netherlands
37	Easter Islander
52	Ecuadorian
51	Egyptian
12	English
53	Eritrean
12	Estonian
53	Ethiopian
44	Eurasian
10	European nfd
12	Falkland Islander/Kelper
36	Fijian (except Fiji Indian/ Indo-Fijian)
43	Fijian Indian/Indo-Fijian
41	Filipino
12	Finnish
12	Flemish
12	French
12	Gaelic
37	Gambier Islander
12	German
53	Ghanian
12	Greek (incl Greek Cypriot)
12	Greenlander
37	Guadalcanalian
37	Guam Islander/Chamorro
52	Guatemalan
43	Gujarati
52	Guyanese
37	Hawaiian
52	Honduran
<u> </u>	

Ethnicity code  42 Hong Kong Chinese  12 Hungarian  12 Icelander  37 I-Kiribati/Gilbertese  43 Indian nec  43 Indian nec  41 Indonesian (incl Javanese/ Sundanese/Sumatran)  61 Inuit/Eskimo  51 Iraqi  12 Irish  51 Israeli/Jewish/Hebrew  12 Italian  53 Jamaican  44 Japanese  51 Jordanian  42 Kampuchean Chinese  37 Kanaka/Kanak  53 Kenyan  41 Khmer/Kampuchean/ Cambodian  44 Korean  51 Kurd  41 Lao/Laotian  52 Latin American/Hispanic nec  52 Latin American/Hispanic nfd  12 Latvian  51 Lebanese  51 Libyan  12 Lithuanian  41 Malay/Malayan  42 Malaysian Chinese  53 Malitian  41 Malay/Malayan  42 Malaysian Chinese  53 Manjai Islander  43 Marianas Islander  34 Mary Marianas Islander  35 Mary Mary Mary Mary Mary Mary Mary Mary	МОН	Country of Ethnicity
12 Hungarian 12 Icelander 37 I-Kiribati/Gilbertese 43 Indian nec 43 Indian nfd 41 Indonesian (incl Javanese/ Sundanese/Sumatran) 61 Inuit/Eskimo 51 Iraqi 12 Irish 51 Israeli/Jewish/Hebrew 12 Italian 53 Jamaican 44 Japanese 51 Jordanian 42 Kampuchean Chinese 37 Kanaka/Kanak 53 Kenyan 41 Khmer/Kampuchean/ Cambodian 44 Korean 51 Kurd 41 Lao/Laotian 52 Latin American/Hispanic nfd 12 Latvian 51 Lebanese 51 Libyan 12 Lithuanian 12 Macedonian 37 Malaitian 41 Malay/Malayan 42 Malaysian Chinese 53 Manyan Chinese 54 Malvinian (Spanish- speaking Falkland Islander) 36 Manyas Islander 37 Manyas Islander 38 Maryanas Islander 39 Manyas Islander 31 Maryanas Islander 32 Manyas Islander 33 Maryanas Islander 34 Maryanas Islander 35 Maryanas Islander 36 Manyas Islander 37 Maryanas Islander 38 Manyas Islander 39 Manyas Islander 30 Maryanas Islander 31 Maryanas Islander 32 Manyas Islander 33 Maryanas Islander 34 Maryanas Islander 35 Maryanas Islander 36 Manyas Islander 37 Maryanas Islander 38 Maryanas Islander 39 Maryanas Islander 30 Maryanas Islander 31 Maryanas Islander 32 Manyanas Islander 33 Maryanas Islander 34 Maryanas Islander 35 Maryanas Islander 36 Maryanas Islander 37 Maryanas Islander 38 Maryanas Islander 39 Maryanas Islander 30 Maryanas Islander 31 Maryanas Islander 32 Mauke Islander 33 Maryanas Islander	Ethnicity	
12 Hungarian 12 Icelander 37 I-Kiribati/Gilbertese 43 Indian nec 43 Indian nfd 41 Indonesian (incl Javanese/ Sundanese/Sumatran) 61 Inuit/Eskimo 51 Iraqi 12 Irish 51 Israeli/Jewish/Hebrew 12 Italian 53 Jamaican 44 Japanese 51 Jordanian 42 Kampuchean Chinese 37 Kanaka/Kanak 53 Kenyan 41 Khmer/Kampuchean/ Cambodian 44 Korean 51 Kurd 41 Lao/Laotian 52 Latin American/Hispanic nfd 12 Latvian 51 Lebanese 51 Libyan 12 Lithuanian 12 Macedonian 37 Malaitian 41 Malay/Malayan 42 Malaysian Chinese 53 Manyan Chinese 54 Malvinian (Spanish- speaking Falkland Islander) 36 Manyas Islander 37 Manyas Islander 38 Maryanas Islander 39 Manyas Islander 31 Maryanas Islander 32 Manyas Islander 33 Maryanas Islander 34 Maryanas Islander 35 Maryanas Islander 36 Manyas Islander 37 Maryanas Islander 38 Manyas Islander 39 Manyas Islander 30 Maryanas Islander 31 Maryanas Islander 32 Manyas Islander 33 Maryanas Islander 34 Maryanas Islander 35 Maryanas Islander 36 Manyas Islander 37 Maryanas Islander 38 Maryanas Islander 39 Maryanas Islander 30 Maryanas Islander 31 Maryanas Islander 32 Manyanas Islander 33 Maryanas Islander 34 Maryanas Islander 35 Maryanas Islander 36 Maryanas Islander 37 Maryanas Islander 38 Maryanas Islander 39 Maryanas Islander 30 Maryanas Islander 31 Maryanas Islander 32 Mauke Islander 33 Maryanas Islander	42	Hong Kong Chinese
I-Kiribati/Gilbertese	12	Hungarian
Indian nec Indian nfd Indonesian (incl Javanese/ Sundanese/Sumatran) Iranian/Persian Iraqi Irish Israeli/Jewish/Hebrew Iz Italian Japanese Jurdanian Kampuchean Chinese Kanyan Khmer/Kampuchean/ Cambodian Kurd Lao/Laotian Latvian Latvian Latvian Latvian Latvian Latvian Labanese Latin American/Hispanic nfd Latvian Labanese Latin American/Hispanic nfd Labanese Latin American/Hispanic nfd Labanese Latin American/Hispanic nfd Labanese Latin American/Hispanic nfd Labanese Malaitian Malay/Malayan Malaitian Malay/Malayan Malaitian Malay/Malayan Malaitian Malay/Malayan Malaitian Malay/Malayan Malaitian Kanyanan Malaitian Malay/Malayan Malaysian Chinese Malvinian (Spanish- speaking Falkland Islander) Manyan Manyanan Islander Marquesas Islander Marquesas Islander Marashall Islander	12	Icelander
Indian nfd   Indonesian (incl Javanese/Sundanese/Sumatran)   Inuit/Eskimo   Iranian/Persian   Iraqi   Irish   Israeli/Jewish/Hebrew   Italian   Japanese   Simple of the provided in the pro	37	I-Kiribati/Gilbertese
41 Indonesian (incl Javanese/Sundanese/Sundanese/Sumatran) 61 Inuit/Eskimo 51 Iraqi 12 Irish 51 Israeli/Jewish/Hebrew 12 Italian 53 Jamaican 44 Japanese 51 Jordanian 42 Kampuchean Chinese 37 Kanaka/Kanak 53 Kenyan 41 Khmer/Kampuchean/ Cambodian 44 Korean 51 Kurd 41 Lao/Laotian 52 Latin American/Hispanic nec 52 Latin American/Hispanic nfd 12 Latvian 51 Lebanese 51 Libyan 12 Lithuanian 14 Malay/Malayan 42 Malayian Chinese 14 Malayinian (Spanish-speaking Falkland Islander) 15 Marquesas Islander 16 Manx 17 Marshall Islander 18 Mary Maryans Islander 19 Maryansa Islander 10 Maryansa Islander 11 Maryansa Islander 12 Manx 13 Marianas Islander 14 Maryansa Islander 15 Maryansa Islander 16 Mauritian 17 Marshall Islander 18 Maryanansa Islander 19 Maryansa Islander 19 Maryansa Islander 10 Maryansa Islander 11 Maryansa Islander 12 Manx 13 Marianas Islander 14 Maryansa Islander 15 Maryansa Islander 16 Mauritian 17 Marshall Islander 18 Maryansa Islander 19 Maryansa Islander 19 Maryansa Islander 10 Maryansa Islander	43	Indian nec
Sundanese/Sumatran) 61	43	Indian nfd
51 Iraqi 12 Irish 51 Israeli/Jewish/Hebrew 12 Italian 53 Jamaican 44 Japanese 51 Jordanian 42 Kampuchean Chinese 37 Kanaka/Kanak 53 Kenyan 41 Khmer/Kampuchean/ Cambodian 44 Korean 51 Kurd 41 Lao/Laotian 52 Latin American/Hispanic nec 52 Latin American/Hispanic nfd 12 Latvian 51 Lebanese 51 Libyan 12 Lithuanian 12 Macedonian 37 Malaitian 41 Malay/Malayan 42 Malaysian Chinese 12 Maltese 52 Malvinian (Spanish-speaking Falkland Islander) 32 Mangaia Islander 33 Marianas Islander 34 Mary Mary Mary Mary Mary Mary Mary Mary	41	
51Iraqi12Irish51Israeli/Jewish/Hebrew12Italian53Jamaican44Japanese51Jordanian42Kampuchean Chinese37Kanaka/Kanak53Kenyan41Khmer/Kampuchean/Cambodian44Korean51Kurd41Lao/Laotian52Latin American/Hispanic nfd52Latin American/Hispanic nfd12Latvian51Lebanese51Libyan12Lithuanian12Macedonian37Malaitian41Malay/Malayan42Malaysian Chinese12Maltese52Malvinian (Spanish-speaking Falkland Islander)32Mangaia Islander32Manyaia Islander33Marianas Islander34Manx37Marianas Islander37Maryuesas Islander37Maryuesas Islander37Maryuesas Islander37Maryuesas Islander38Mauke Islander39Mauke Islander40Mauritian52Mexican51Middle Eastern nec51Middle Eastern nfd32Mitiaro Islander	61	Inuit/Eskimo
12 Irish 13 Israeli/Jewish/Hebrew 14 Islian 15 Jamaican 14 Japanese 15 Jordanian 14 Kampuchean Chinese 15 Kanaka/Kanak 15 Kenyan 16 Kurd 17 Lao/Laotian 18 Lao/Laotian 19 Latin American/Hispanic nec 19 Latin American/Hispanic nfd 10 Latvian 11 Lebanese 12 Lithuanian 12 Macedonian 13 Malaitian 14 Malay/Malayan 15 Malayian Chinese 16 Maltese 17 Malayian Chinese 18 Malyinian (Spanish-speaking Falkland Islander) 19 Manya Islander 10 Manya Manya Islander 11 Manya Manya Islander 12 Manx 13 Marianas Islander 14 Manya Manya Islander 15 Manya Islander 16 Manya Marianas Islander 17 Manya Islander 18 Marya Marianas Islander 19 Manya Marianas Islander 19 Manya Marianas Islander 10 Manya Marianas Islander 11 Manya Marianas Islander 12 Manx 13 Marianas Islander 14 Manya Marya Islander 15 Manya Marianas Islander 16 Mauritian 17 Marya Marya Islander 18 Marya Marya Islander 19 Manya Marya Islander 19 Manya Marya Islander 19 Manya Marya Islander 10 Manya Islander 11 Manya Marya Islander 12 Manya Marya Islander 13 Marya Marya Islander 14 Marya Marya Islander 15 Marya Marya Islander 16 Mauritian 17 Marya Marya Islander 18 Marya Marya Islander 19 Marya Mar	51	Iranian/Persian
51Israeli/Jewish/Hebrew12Italian53Jamaican44Japanese51Jordanian42Kampuchean Chinese37Kanaka/Kanak53Kenyan41Khmer/Kampuchean/Cambodian44Korean51Kurd41Lao/Laotian52Latin American/Hispanic nec52Latin American/Hispanic nfd12Latvian51Lebanese51Libyan12Lithuanian12Macedonian37Malaitian41Malay/Malayan42Maltese52Malvinian (Spanish-speaking Falkland Islander)32Mangaia Islander32Manjain Islander33Mangaia Islander34Manyas Islander35Manihiki Islander36Marianas Islander37Marianas Islander38Maryashall Islander39Marshall Islander31Mavican51Middle Eastern nec51Middle Eastern nfd32Mitiaro Islander	51	Iraqi
12 Italian 53 Jamaican 44 Japanese 51 Jordanian 42 Kampuchean Chinese 37 Kanaka/Kanak 53 Kenyan 41 Khmer/Kampuchean/ Cambodian 44 Korean 51 Kurd 41 Lao/Laotian 52 Latin American/Hispanic nec 52 Latin American/Hispanic nfd 12 Latvian 51 Lebanese 51 Libyan 12 Lithuanian 12 Macedonian 37 Malaitian 41 Malay/Malayan 42 Malaysian Chinese 12 Maltese 52 Malvinian (Spanish-speaking Falkland Islander) 32 Mangaia Islander 33 Manus Islander 34 Manis Islander 35 Marianas Islander 36 Mary Marianas Islander 37 Marianas Islander 38 Mary Marianas Islander 39 Mary Marianas Islander 31 Mary Marianas Islander 32 Manis Islander 33 Mary Marianas Islander 34 Mary Mary Mary Mary Mary Mary Mary Mary	12	Irish
Jamaican Japanese Jordanian Kampuchean Chinese Kanaka/Kanak Kanak Kenyan Khmer/Kampuchean/ Cambodian Kurd Lao/Laotian Latin American/Hispanic nec Latin American/Hispanic nfd Lebanese Libyan Lithuanian Malaitian Malay/Malayan Malaitian Malay/Malayan Malaitian Malay/Malayan Malaitian (Spanish-speaking Falkland Islander) Manx Manyan Manyan Manyan Manyan Manyan Manyan Islander Manyan Manyan Islander Manyan Manyan Manyan Islander Manyan Manyan Manyan Manyan Islander Manyan Manyan Islander Manyan Manyan Manyan Islander Manyan Marianas Islander Manyan Marianas Islander Manyan Marianas Islander Manyan Marianas Islander Manyanan Marianas Islander Manyanan Marianas Islander Manyanan Marianas Islander Maryanan Marianas Islander Manyanan Marianan Islander Maryanan Marianan Islander Mauritian Maryanan Marianan Islander Mauritian Maryanan Marianan Islander Mauritian Maryanan Maryanan Maryanan Maryanan Islander Mauritian Maryanan Maryanan Maryanan Maryanan Islander Maryanan Ma	51	Israeli/Jewish/Hebrew
Japanese Jordanian Jordanian Kampuchean Chinese Kanaka/Kanak Kenyan Khmer/Kampuchean/ Cambodian Kurd Lao/Laotian Latin American/Hispanic nec Latin American/Hispanic nfd Lebanese Libyan Lithuanian Malaitian Malay/Malayan Malayian Chinese Malaysian Chinese Malaysian Chinese Malaysian Chinese Malaysian Spanish- speaking Falkland Islander Manx Marianas Islander Mary Mary Malayan Mary Many Many Many Many Many Many Many Many	12	Italian
51 Jordanian 42 Kampuchean Chinese 37 Kanaka/Kanak 53 Kenyan 41 Khmer/Kampuchean/ Cambodian 44 Korean 51 Kurd 41 Lao/Laotian 52 Latin American/Hispanic nec 52 Latin American/Hispanic nfd 12 Latvian 51 Lebanese 51 Libyan 12 Lithuanian 12 Macedonian 37 Malaitian 41 Malay/Malayan 42 Malaysian Chinese 12 Maltese 52 Malvinian (Spanish-speaking Falkland Islander) 32 Manus Islander 33 Manus Islander 34 Manx 35 Marianas Islander 36 Maryanal Islander 37 Maryana Islander 38 Maryana Islander 39 Manus Islander 31 Manus Islander 32 Manihiki Islander 33 Marianas Islander 34 Maryanas Islander 35 Maryanas Islander 36 Maryanas Islander 37 Maryanas Islander 38 Maryanas Islander 39 Maryanas Islander 31 Maryanas Islander 32 Manyanas Islander 33 Maryanas Islander 34 Maryanas Islander 35 Maryanas Islander 36 Maryanas Islander 37 Maryanas Islander 38 Maryanas Islander 39 Maryanas Islander 31 Maryanas Islander 32 Maryanas Islander	53	Jamaican
Kampuchean Chinese Kanaka/Kanak Kenyan Khmer/Kampuchean/ Cambodian Korean Kurd Lao/Laotian Latin American/Hispanic nec Latin American/Hispanic nfd Lebanese Libyan Lithuanian Malay/Malayan Malaitian Malay/Malayan Malatese Malvinian (Spanish- speaking Falkland Islander) Many Manyal Islander Marquesas Islander Marquesas Islander Mary Malaylander Mary Marianas Islander Mary Marianas Islander Mary Mary Mary Mary Mary Mary Mary Mary	44	Japanese
37Kanaka/Kanak53Kenyan41Khmer/Kampuchean/ Cambodian44Korean51Kurd41Lao/Laotian52Latin American/Hispanic nec52Latvian American/Hispanic nfd12Latvian51Lebanese51Libyan12Lithuanian12Macedonian37Malaitian41Malay/Malayan42Malaysian Chinese12Maltese52Malvinian (Spanish-speaking Falkland Islander)32Mangaia Islander32Manihiki Islander37Manus Islander37Marianas Islander37Marianas Islander37Marquesas Islander37Maryall Islander32Mauke Islander31Mauke Islander52Mexican51Middle Eastern nec51Middle Eastern nfd32Mitiaro Islander	51	Jordanian
Kenyan  Khmer/Kampuchean/ Cambodian  Korean  Kurd  Lao/Laotian  Latin American/Hispanic nec  Latin American/Hispanic nfd  Latvian  Lebanese  Libyan  Lithuanian  MalayiMalayan  Malayiman Chinese  Malvinian (Spanish-speaking Falkland Islander)  Manya Manyas Islander  Manya Manyas Islander  Manya Marianas Islander  Maryasas Islander	42	Kampuchean Chinese
41 Khmer/Kampuchean/ Cambodian  44 Korean  51 Kurd  41 Lao/Laotian  52 Latin American/Hispanic nec  52 Latin American/Hispanic nfd  12 Latvian  51 Lebanese  51 Libyan  12 Lithuanian  12 Macedonian  37 Malaitian  41 Malay/Malayan  42 Malaysian Chinese  12 Maltese  52 Malvinian (Spanish-speaking Falkland Islander)  32 Mangaia Islander  33 Manus Islander  34 Manus Islander  35 Marianas Islander  36 Mary Marianas Islander  37 Maryuesas Islander  38 Maryuesas Islander  39 Marshall Islander  31 Maryuesas Islander  32 Manuke Islander  33 Maryuesas Islander  34 Maryuesas Islander  35 Maryuesas Islander  36 Maryuesas Islander  37 Maryuesas Islander  38 Maryuesas Islander  39 Maryuesas Islander  31 Maryuesas Islander  32 Mauke Islander  33 Maryuesas Islander  34 Maryuesas Islander  35 Maryuesas Islander  36 Mauke Islander  37 Maryuesas Islander	37	Kanaka/Kanak
Cambodian  Korean  Kurd  Lao/Laotian  Latin American/Hispanic nec  Latin American/Hispanic nfd  Latvian  Lebanese  Libyan  Lithuanian  Malay/Malayan  Malay/Malayan  Malaysian Chinese  Malvinian (Spanish-speaking Falkland Islander)  Many Many Many Many Many Many Many Many	53	Kenyan
51 Kurd 41 Lao/Laotian 52 Latin American/Hispanic nec 52 Latin American/Hispanic nfd 12 Latvian 51 Lebanese 51 Libyan 12 Lithuanian 13 Malaitian 41 Malay/Malayan 42 Malaysian Chinese 12 Maltese 52 Malvinian (Spanish-speaking Falkland Islander) 32 Mangaia Islander 33 Manus Islander 34 Manx 35 Marianas Islander 36 Mary Mary Sander 37 Mary Sander 38 Mary Sander 39 Mary Sander 30 Mary Sander 31 Mary Sander 32 Manke Islander 33 Mary Marshall Islander 34 Mary Sander 35 Mary Sander 56 Mauke Islander 57 Mary Sander 58 Mary Sander 59 Mary Sander 50 Mary Sander 51 Middle Eastern nec 51 Middle Eastern nfd 52 Middle Eastern nfd 53 Mittiaro Islander	41	
41 Lao/Laotian 52 Latin American/Hispanic nec 52 Latin American/Hispanic nfd 12 Latvian 51 Lebanese 51 Libyan 12 Lithuanian 13 Macedonian 37 Malaitian 41 Malay/Malayan 42 Malaysian Chinese 12 Maltese 52 Malvinian (Spanish-speaking Falkland Islander) 32 Manjaia Islander 33 Manus Islander 34 Manx 35 Marianas Islander 36 Mary Mary Slander 37 Mary Mary Slander 38 Mary Slander 39 Mary Slander 30 Mary Slander 31 Mary Slander 32 Manke Islander 33 Mary Slander 34 Mary Slander 55 Mary Slander 56 Mauke Islander 57 Mary Slander 58 Mary Slander 59 Mary Slander 50 Mary Slander 50 Mary Slander 51 Middle Eastern nec 51 Middle Eastern nfd 52 Middle Eastern nfd	44	Korean
Latin American/Hispanic nec  Latin American/Hispanic nfd  Latvian  Lebanese  Libyan  Lithuanian  Macedonian  Malaitian  Malay/Malayan  Malaysian Chinese  Malvinian (Spanish-speaking Falkland Islander)  Manus Islander  Manus Islander  Manus Islander  Mary Maryan  Maryan (Spanish-speaking Falkland Islander)  Manus Islander  Manus Islander  Manus Islander  Manus Islander  Maryan Marianas Islander  Maryan Marianas Islander  Maryan Marianas Islander  Maryan Maryan Maryan (Spanish-speaking Falkland Islander)  Manus Islander  Manus Islander  Manus Islander  Maryanas Islander	51	Kurd
nec  52 Latin American/Hispanic nfd  12 Latvian  51 Lebanese  51 Libyan  12 Lithuanian  13 Macedonian  37 Malaitian  41 Malay/Malayan  42 Malaysian Chinese  12 Malvinian (Spanish-speaking Falkland Islander)  32 Mangaia Islander  33 Manus Islander  34 Manus Islander  35 Marianas Islander  36 Mary  37 Marianas Islander  38 Mary  39 Mary  30 Mary  31 Mary  32 Mary  33 Mary  34 Mary  35 Mary  36 Mary  37 Mary  38 Mary  39 Mary  30 Mary  31 Mary  32 Mauke Islander  33 Mary  34 Mary  35 Mary  36 Mary  37 Mary  38 Mary  39 Mary  40 Mary  41 Mary  42 Mary  43 Mary  44 Mary  45 Mary  46 Mary  47 Mary  48 Mary  49 Mary  40 Mary  41 Mary  41 Mary  41 Mary  42 Mary  43 Mary  44 Mary  45 Mary  46 Mary  46 Mary  47 Mary  48 Mary  49 Mary  40 Mary  40 Mary  41 Mary  41 Mary  42 Mary  43 Mary  44 Mary  45 Mary  46 Mary  46 Mary  47 Mary  48 Mary  49 Mary  49 Mary  40 Mar	41	Lao/Laotian
12 Latvian 51 Lebanese 51 Libyan 12 Lithuanian 12 Macedonian 37 Malaitian 41 Malay/Malayan 42 Malaysian Chinese 12 Maltese 52 Malvinian (Spanish-speaking Falkland Islander) 32 Mangaia Islander 33 Manus Islander 34 Manus Islander 35 Marianas Islander 36 Marquesas Islander 37 Marquesas Islander 38 Marshall Islander 39 Marshall Islander 30 Marke Islander 31 Mauke Islander 32 Mauke Islander 33 Marianas Islander 34 Marquesas Islander 55 Mauke Islander 56 Mauritian 57 Marshall Islander 58 Mexican 59 Mexican 51 Middle Eastern nec 50 Middle Eastern nfd 50 Mittiaro Islander	52	•
51 Lebanese 51 Libyan 12 Lithuanian 12 Macedonian 37 Malaitian 41 Malay/Malayan 42 Malaysian Chinese 12 Maltese 52 Malvinian (Spanish-speaking Falkland Islander) 32 Mangaia Islander 33 Manus Islander 34 Manus Islander 35 Marianas Islander 36 Marquesas Islander 37 Marquesas Islander 38 Marshall Islander 39 Marshall Islander 30 Marshall Islander 31 Marke Islander 32 Mauke Islander 33 Marianas Islander 34 Marshall Islander 55 Mauke Islander 56 Mauritian 57 Marshall Islander 58 Mexican 59 Mexican 51 Middle Eastern nec 51 Middle Eastern nfd 32 Mittiaro Islander	52	Latin American/Hispanic nfd
51 Libyan 12 Lithuanian 13 Macedonian 37 Malaitian 41 Malay/Malayan 42 Malaysian Chinese 12 Maltese 52 Malvinian (Spanish-speaking Falkland Islander) 32 Mangaia Islander 33 Manus Islander 34 Manus Islander 35 Marianas Islander 36 Marquesas Islander 37 Marquesas Islander 38 Mary Marianas Islander 39 Mary Marianas Islander 30 Mary Mary Mary Mary Mary Mary Mary Mary	12	Latvian
12 Lithuanian 12 Macedonian 37 Malaitian 41 Malay/Malayan 42 Malaysian Chinese 12 Maltese 52 Malvinian (Spanish-speaking Falkland Islander) 32 Mangaia Islander 32 Manihiki Islander 33 Manus Islander 44 Manx 45 Marianas Islander 46 Mary 47 Marshall Islander 48 Mary 49 Mary 40 Mary 41 Mary 41 Mary 42 Many 41 Mary 42 Many 43 Marianas Islander 43 Mary 41 Mary 42 Mary 43 Mary 44 Mary 45 Mary 46 Mary 47 Mary 48 Mary	51	Lebanese
12 Macedonian 37 Malaitian 41 Malay/Malayan 42 Malaysian Chinese 12 Maltese 52 Malvinian (Spanish- speaking Falkland Islander) 32 Mangaia Islander 33 Manus Islander 14 Manx 15 Marianas Islander 16 Marshall Islander 17 Marshall Islander 18 Mauritian 19 Mexican 10 Middle Eastern nec 10 Middle Eastern nfd 11 Middle Eastern nfd 12 Mitiaro Islander	51	Libyan
37 Malaitian 41 Malay/Malayan 42 Malaysian Chinese 12 Maltese 52 Malvinian (Spanish- speaking Falkland Islander) 32 Mangaia Islander 33 Manus Islander 34 Manus Islander 35 Marianas Islander 36 Marquesas Islander 37 Marquesas Islander 38 Marshall Islander 39 Mauke Islander 30 Mauke Islander 31 Mauritian 32 Mexican 33 Middle Eastern nec 34 Middle Eastern nfd 35 Middle Eastern nfd 36 Mitiaro Islander	12	Lithuanian
41 Malay/Malayan 42 Malaysian Chinese 12 Maltese 52 Malvinian (Spanish-speaking Falkland Islander) 32 Mangaia Islander 33 Manihiki Islander 34 Manus Islander 15 Manx 36 Marianas Islander 37 Marquesas Islander 38 Marshall Islander 39 Marshall Islander 30 Mauke Islander 31 Mauke Islander 32 Mauke Islander 33 Maviana	12	Macedonian
42 Malaysian Chinese 12 Maltese 52 Malvinian (Spanish- speaking Falkland Islander) 32 Mangaia Islander 33 Manus Islander 34 Manus Islander 35 Marianas Islander 36 Marianas Islander 37 Marquesas Islander 38 Marshall Islander 39 Mauke Islander 30 Mauke Islander 31 Mauritian 32 Mexican 33 Middle Eastern nec 34 Middle Eastern nfd 35 Middle Eastern nfd 36 Mittiaro Islander	37	Malaitian
12 Maltese 52 Malvinian (Spanish- speaking Falkland Islander) 32 Mangaia Islander 33 Manus Islander 34 Manus Islander 35 Marianas Islander 36 Marquesas Islander 37 Maryuesas Islander 38 Marke Islander 39 Mauke Islander 30 Mauke Islander 31 Mauritian 32 Mexican 33 Mexican 34 Middle Eastern nec 35 Middle Eastern nfd 36 Mittiaro Islander	41	Malay/Malayan
52 Malvinian (Spanish- speaking Falkland Islander) 32 Mangaia Islander 32 Manihiki Islander 37 Manus Islander 12 Manx 37 Marianas Islander 37 Marquesas Islander 38 Marshall Islander 39 Mauke Islander 40 Mauritian 50 Mexican 51 Middle Eastern nec 51 Middle Eastern nfd 52 Mitiaro Islander	42	Malaysian Chinese
speaking Falkland Islander)  32 Mangaia Islander  33 Manihiki Islander  34 Manus Islander  15 Manus Islander  36 Marianas Islander  37 Marquesas Islander  38 Marshall Islander  39 Mauke Islander  40 Mauritian  40 Mexican  41 Middle Eastern nec  42 Middle Eastern nfd  43 Mitiaro Islander	12	
32 Manihiki Islander 37 Manus Islander 12 Manx 37 Marianas Islander 37 Marquesas Islander 37 Marshall Islander 38 Mauke Islander 40 Mauritian 40 Mexican 41 Middle Eastern nec 42 Middle Eastern nfd 43 Mitiaro Islander	52	
37 Manus Islander 12 Manx 37 Marianas Islander 37 Marquesas Islander 37 Marshall Islander 32 Mauke Islander 61 Mauritian 52 Mexican 51 Middle Eastern nec 51 Middle Eastern nfd 32 Mitiaro Islander	32	
12 Manx 37 Marianas Islander 37 Marquesas Islander 37 Marshall Islander 32 Mauke Islander 61 Mauritian 52 Mexican 51 Middle Eastern nec 51 Middle Eastern nfd 32 Mitiaro Islander	32	Manihiki Islander
37 Marianas Islander 37 Marquesas Islander 37 Marshall Islander 32 Mauke Islander 61 Mauritian 52 Mexican 51 Middle Eastern nec 51 Middle Eastern nfd 32 Mitiaro Islander	37	Manus Islander
37 Marquesas Islander 37 Marshall Islander 32 Mauke Islander 61 Mauritian 52 Mexican 51 Middle Eastern nec 51 Middle Eastern nfd 32 Mitiaro Islander	12	Manx
37 Marshall Islander 32 Mauke Islander 61 Mauritian 52 Mexican 51 Middle Eastern nec 51 Middle Eastern nfd 32 Mitiaro Islander	37	Marianas Islander
32 Mauke Islander 61 Mauritian 52 Mexican 51 Middle Eastern nec 51 Middle Eastern nfd 32 Mitiaro Islander	37	Marquesas Islander
61 Mauritian 52 Mexican 51 Middle Eastern nec 51 Middle Eastern nfd 32 Mitiaro Islander	37	Marshall Islander
<ul> <li>52 Mexican</li> <li>51 Middle Eastern nec</li> <li>51 Middle Eastern nfd</li> <li>32 Mitiaro Islander</li> </ul>	32	Mauke Islander
<ul> <li>51 Middle Eastern nec</li> <li>51 Middle Eastern nfd</li> <li>32 Mitiaro Islander</li> </ul>	61	Mauritian
51 Middle Eastern nfd 32 Mitiaro Islander	52	Mexican
32 Mitiaro Islander	51	Middle Eastern nec
	51	Middle Eastern nfd
51 Moroccan	32	Mitiaro Islander
	51	Moroccan

MOH Ethnicity code	Country of Ethnicity Affiliation
37	Nauru Islander
44	Nepalese
37	New Britain Islander
12	New Caledonian
37	New Georgian
37	New Irelander
11	New Zealander
11	New Zealand European
21	New Zealand Maori
52	Nicaraguan
53	Nigerian
34	Niuean
61	North American Indian
12	Norwegian
99	Not Specified
37	Ocean Islander/Banaban
51	Omani
12	Orkney Islander
53	Other African nec
44	Other Asian nec
12	Other European
61	Other nec
61	Other nfd
41	Other Southeast Asian nec
37	Pacific Peoples nec
30	Pacific Peoples nfd
44	Pakistani
51	Palestinian
32	Palmerston Islander
52	Panamanian
37	Papuan/New Guinean/Irian Jayan
52	Paraguayan
32	Penrhyn Islander
52	Peruvian
37	Phoenix Islander
37	Pitcairn Islander
12	Polish
12	Portuguese
52	Puerto Rican
32	Pukapuka Islander
43	Punjabi
32	Rakahanga Islander
32	Rarotongan
12	Romanian/Rumanian
12	Romany/Gypsy
37	Rotuman/Rotuman Islander
12	Russian
31	Samoan
37	Santa Cruz Islander
12	Sardinian
12	Scottish (Scots)

MOH Ethnicity code	Country of Ethnicity Affiliation
12	Serb/Serbian
61	Seychelles Islander
12	Shetland Islander
43	Sikh
42	Singaporean Chinese
44	Sinhalese
12	Slavic/Slav
12	Slovak
12	Slovene/Slovenian
37	Society Islander (including Tahitian)
37	Solomon Islander
53	Somali
61	South African coloured
12	South African nec
61	South American Indian
12	South Slav (formerly Yugoslav groups) nfd
12	South Slav (formerly Yugoslav) nec
41	Southeast Asian nfd
12	Spanish
44	Sri Lankan nec
44	Sri Lankan nfd
44	Sri Lankan Tamil
12	Swedish
12	Swiss
51	Syrian
42 37	Taiwanese Chinese Tahitian (including Society Islander)
43	Tamil
41	Thai/Tai/Siamese
44	Tibetan
35	Tokelauan
33	Tongan
37	Torres Strait Islander/Thursday Islander
37	Tuamotu Islander
51	Tunisian
51	Turkish (incl Turkish Cypriot)
37	Tuvalu Islander/Ellice Islander
53	Ugandan
12	Ukrainian
52	Uruguayan
37	Vanuatu Islander/New Hebridean
52	Venezuelan
41	Vietnamese
42	Vietnamese Chinese
37	Wake Islander
37	Wallis Islander

MOH Ethnicity code	Country of Ethnicity Affiliation
12	Welsh
53	West Indian/Caribbean
37	Yap Islander
51	Yemeni
12	Zimbabwean

nfd = Not further defined nec = Not elsewhere classified

### **Appendix H: DRG Process**

#### Introduction

This appendix describes the process by which the Diagnostic Related Grouping (DRG) and related fields are calculated.

# Schedules not stored

For version 3, the Grouper Program stored schedules of:

- · average cost weights (of a Cost Weight Code), and
- · average length of stay for each of its DRG codes.

However, for versions 4.1, 4.2, 5.0, 6.0 and 6.0x no historical data is available, so no average values are stored.

#### **Current software**

The current DRG Grouper Program (software) is version 6.0x. This can produce DRG codes in clinical versions 3.1, 4.1, 4.2, 5.0, 6.0 and 6.0x

# Which DRG versions are stored

DRG codes of clinical version 3.1 are stored for all events.

For events with end dates between 1 July 2001 and 30 June 2002, DRG codes are also calculated and stored in clinical version 4.1.

For events with end dates between 1 July 2002 and 30 June 2005, DRG codes are calculated and stored in clinical version 4.2.

For events with end dates between 1 July 2005 and 30 June 2011, DRG codes are calculated and stored in clinical version 5.0

For events with end dates between 1 July 20011 and 30 June 2013, DRG codes are calculated and stored in clinical version 6.0

For events with an end date on or after 1 July 2013, DRG codes are calculated and stored in clinical version 6.0x

Note: The 4.1, 4.2, 5.0, 6.0 and 6.0x codes are both stored in the same field, health event tab: drg\_code current.

#### **DRG Process**

This table shows the DRG process for the NMDS.

Stage	Description
1	The diagnosis and procedure information are mapped to different ICD codes, so that codes are held in:  ICD-9-CM-A, and ICD-10-AM 1st Edition, and ICD-10-AM 2nd Edition, and ICD-10-AM 3rd Edition, and ICD-10-AM 6th Edition and ICD-10-AM 8th Edition Note:  The diagnosis_procedure_tab.submitted_system_id indicates which version of the ICD the clinical code was reported in. For the 2004-2005 financial year, NMDS will continue to apply ICD-10-AM 2nd Edition code to the Grouper  For the 2005 to 2010 financial years, NMDS will apply ICD-10-AM 3rd Edition codes to the Grouper.
	4. For the 2011 financial years, NMDS will apply ICD-10-AM 6 <sup>th</sup> Edition codes to the Grouper.

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2	<ul> <li>The DRG Grouper Program version 6.0 processes information about an event for each grouper clinical version, including:</li> <li>personal information (e.g., Sex, Date of birth), and</li> <li>event information (e.g., Admission date, Event end type), and</li> <li>diagnosis and procedure information in the appropriate ICD code for the DRG Grouper.</li> </ul>
3	<ul> <li>For each clinical version of the Grouper (3.1, 4.1, 4.2, 5.0, 6.0 and 6.0x), the DRG Grouper Program version 6.0x calculates (for that event):</li> <li>a DRG code (of the DRG grouper type)</li> <li>an MDC code (of an MDC type that is the same as the DRG grouper type)</li> <li>CCL or PCCL (as appropriate for that clinical version of the Grouper)</li> </ul>
4	NMDS processing calculates the Cost weight (using the WIES methodology) and Purchase unit from:  • the DRG and associated variables  • Length of stay  • Total hours on mechanical ventilation  • some diagnosis and procedure codes  • Health specialty code  For details, see http://www.health.govt.nz/nz-health-statistics/data-references/weighted-inlier-equivalent-separations

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# **Appendix I: Enhanced Event Type/Event Diagnosis Type Table**

Event type	Event Type Description (not stored in table)	Diagnosis type	Diagnosis type description (not stored in table)	Cardinality	Optionality
ВТ	Birth event	Α	Principal diagnosis	1	M
ВТ	Birth event	В	Other relevant diagnosis	N	0
ВТ	Birth event	E	E-code (External cause of injury)	N	0
ВТ	Birth event	0	Operation / Procedure	N	0
ID**	Intended day case	А	Principal diagnosis	1	M
ID*	Intended day case	В	Other relevant diagnosis	N	0
ID*	Intended day case	E	E-code (External cause of injury)	N	0
ID*	Intended day case	0	Operation / Procedure	N	0
ID*	Intended day case*	M	Morphology	N	0
IM	Psychiatric inpatient event	Α	Principal diagnosis	1	M
IM	Psychiatric inpatient event	В	Other relevant diagnosis	N	0
IM	Psychiatric inpatient event	E	E-code (External cause of injury)	N	0
IM	Psychiatric inpatient event	0	Operation / Procedure	N	0
IM	Psychiatric inpatient event	Р	Mental health provisional diagnosis	N	Ο
IM	Psychiatric inpatient event	M	Morphology	N	0
IP	Non-psychiatric inpatient event	Α	Principal diagnosis	1	М
IP	Non-psychiatric inpatient event	В	Other relevant diagnosis	N	0
IP	Non-psychiatric inpatient event	Е	E-code (External cause of injury)	N	0
IP	Non-psychiatric inpatient event	0	Operation / Procedure	N	0
IP	Non-psychiatric inpatient event	M	Morphology	N	0

<sup>\*</sup> Retired 30 June 2013

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### Appendix J: Duplicate and overlapping event checking rules

# Fatal duplicate events

#### Reject if:

- the same key fields exist.
- master\_hcu\_id, Event type, and Event start and end dates are all the same, facility is different, and Length of stay is greater than zero days.
- master\_hcu\_id, Facility, and the Event start and end dates are all the same,
   Event types are different, and Length of stay is greater than zero days.

#### Warnings

#### Generate warning if:

 master\_hcu\_id, Facility, Event start and end dates, and Event type are all the same, and Length of stay of both events is zero.

# Fatal overlapping events

#### Reject if:

- master\_hcu\_id, Facility, Event start date, and Event type are all the same; and Length of stay of both events is greater than zero.
- master\_hcu\_id, Facility, and Event type (not "IM") are all the same; Event start date of one event is between the Event start and end dates of the other event; and Length of stay of both events is greater than zero.
- master\_hcu\_id, Facility, and Event start date are all the same; Event types are different (not "IM"); and Length of stay of each event is greater than zero.
- master\_hcu\_id, Event start date, and Event type (not "IM") are the same; Facilities are different; and Length of stay of each event is greater than zero.
- master\_hcu\_id is the same; Facilities and Event types are different (Event types not "IM"); Event start date of one event is between Event start and end dates of the other event; and Length of stay of each event is greater than zero.

# In general (in plain English)

A day case (Event type either ID or IP and Length of stay 0 days) may occur within an IP or IM event for the same master\_hcu\_id where the Length of stay is not zero.

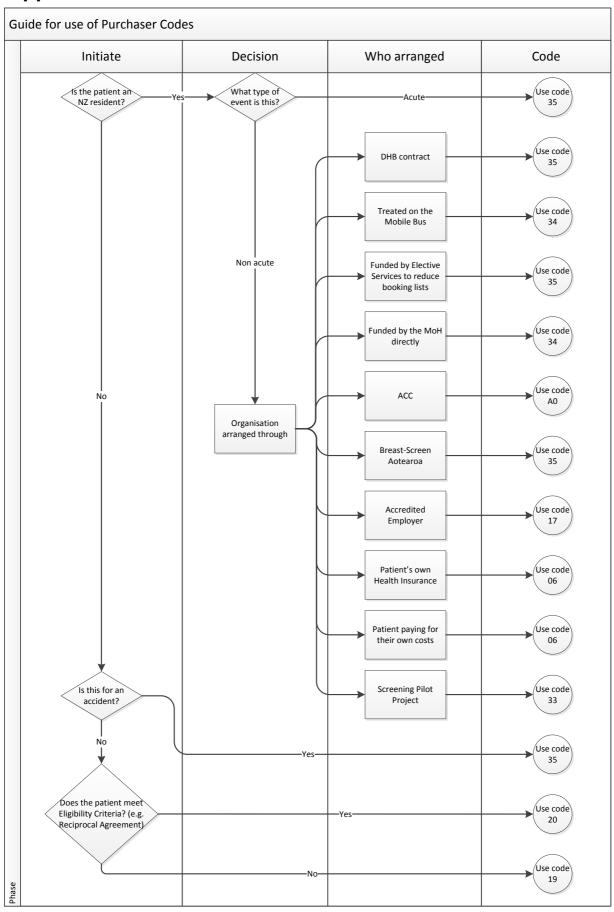
Two day cases (Event type = IP and Length of stay = 0, or Event type = ID and Event start date is the same as an IP or IM event) may exist on one day for the same master hcu id.

An IP or IM event where Length of stay is greater than zero may exist within an IM event for the same master\_hcu\_id.

If Length of stay is greater than zero for both events and the Length of stay for both events for the same master\_hcu\_id is the same then reject.

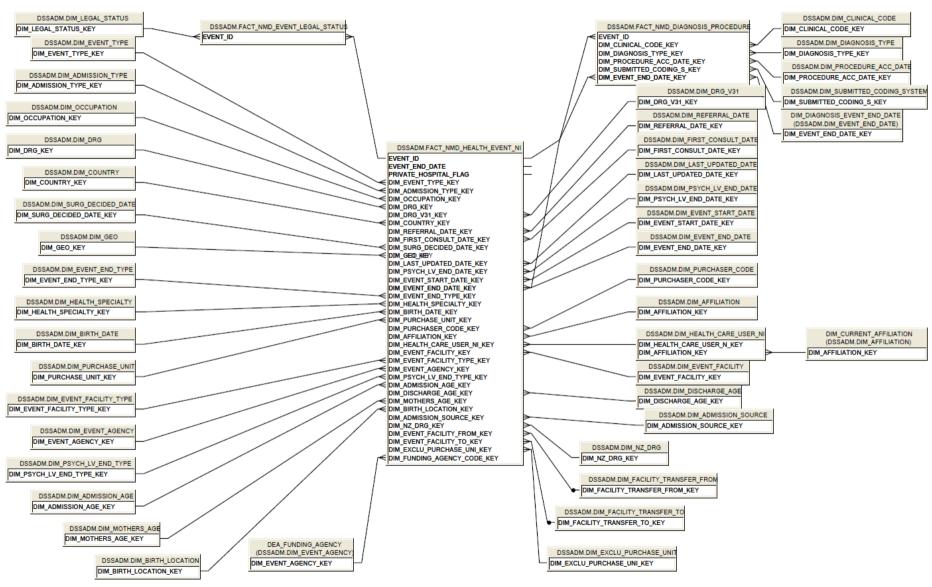
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# Appendix K: Guide for Use of NMDS Purchaser Code



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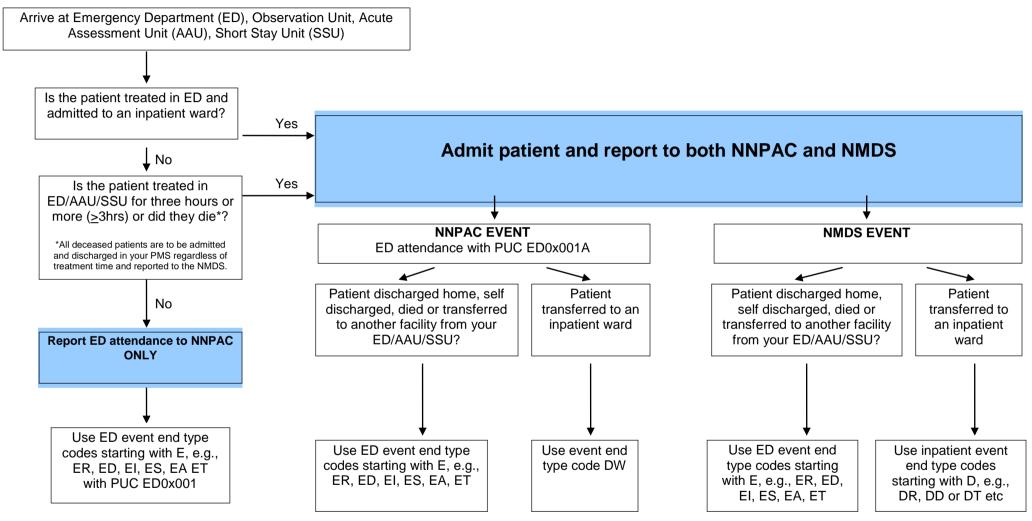
### **Appendix L: NMD Data Mart Data Model**



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### Appendix M: Guide for Use of Emergency Department (ED) Event End Type Codes

\*Please note: when calculating the three hours, exclude waiting time in the waiting room, exclude triage and use only the duration of assessment/treatment. If part of the assessment/treatment includes observation, then



PUC = Purchaser Unit Code

NNPAC = National Non Admitted Patient Collection

NMDS = National Minimum Dataset

this time contributes to the three hours. 'Assessment/treatment' is clinical assessment, treatment, therapy, advice, diagnostic or investigatory procedures from a nurse or doctor or other health professional.

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Emergency Department (ED) Attendance	Emergency Department Short Stay (ED) Acute Assessment Unit (AAU) Short Stay Unit (SSU)	Hospital Inpatient Ward	
NNPAC reporting	NMDS reporting	NMDS reporting	
Patient arrives in ED via ambulance at 09.10am. Patient is stabilised and transferred (discharged) to another healthcare facility from ED at 10.27am			
ED attendance reported to NNPAC Purchase unit (ED0x001) Event end type = ET			
Patient presents to ED reception 01/03/2011 at 15.53pm. Triaged at 16.12pm returned to waiting room Patient taken through to ED 16.53pm. Assessment/treatment began at 16.48pm. Patient treated and discharged home 18.23pm			
ED attendance reported to NNPAC Purchase unit (ED0x001) Event end type = ER			
Patient presents to ED reception 01/03/2011 at 10.32am. Triaged at 10.56am returned to waiting room Patient was not willing to wait, therefore left at 12.32pm without being seen and did not want to sign indemnity			
ED attendance reported to NNPAC Purchase unit (ED00002) Event end type = ES			
Patient presents to ED reception 01/03/2011 at 22.53pm Triaged at 22.55pm and taken through to ED Assessment/treatment began at 23.02pm Patient stabilised, reviewed and requires diagnostic tests After review of results decision is to admit patient to inpatient ward Patient transferred to inpatient ward 02/03/2011 at 01.14am		Patient transferred to inpatient ward from ED	
ED attendance reported to NNPAC Purchase unit (ED0x001A)		Patient discharged home 06/03/2011 at 13.32pm Report hospital inpatient event to the NMDS Event start datetime will be 01/03/2011 23.02pm	

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Event end datetime will be 06/03/2011 13.32pm Event end type DR

Emergency Department (ED) Attendance	Emergency Department Short Stay (ED) Acute Assessment Unit (AAU) Short Stay Unit (SSU)	Hospital Inpatient Ward	
NNPAC reporting	NMDS reporting	NMDS reporting	
Patient presents to ED reception 01/03/2011 at 13.53pm Triaged at 14.02pm returned to waiting room Patient taken through to ED Assessment/treatment began at 14.48pm Patient reviewed, requires tests and observation/treatment Patient still present in ED at 18.10pm awaiting results and review	Patient meets 3 hour admission rule – admit patient as an ED short stay event Event start datetime will be 01/03/2011 14.48pm		
ED attendance reported to NNPAC for counting purposes only Purchase unit (ED0x001A) Event end type = ER	ED clinician reviewed results and cleared patient for discharge at 18.37pm. Discharged home from ED 18.53pm Event end datetime will be 01/03/2011 18.53pm, event end type will be ER  Report ED short stay event to the NMDS		
Patient presents to ED reception at 01/03/2011 at 13.53pm Triaged at 14.02pm returned to waiting room Patient taken through to ED Assessment/treatment began at 14.48pm Patient reviewed, requires tests and observation/treatment Patient still present in ED at 18.10pm awaiting results and review	Patient meets 3 hour admission rule – admit patient as an ED short stay event Event start datetime will be 01/03/2011 14.48pm		
ED attendance reported to NNPAC for counting purposes only Purchase unit (ED0x001A) Event end type = DW	ED clinician reviewed results at 18.28pm and patient not improving, decision made to admit patient to hospital inpatient ward  Patient transferred to inpatient ward - internal transfer only (no discharge)	Patient transferred to inpatient ward from ED Patient discharged home from inpatient ward 04/03/2011 at 11.10am	
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\*Note: the event start date/time of admission will be from the commencement of assessment/treatment in ED (NNPAC = datetime of first contact).

EMERGENCY DEPARTMENT SCENARIOS	NNPAC REPORTING	NNPAC EVENT END TYPE [ED attendance]	NMDS REPORTING	NMDS EVENT END TYPE [ED/AAU/SSU short stay event]
Patient in ED receives treatment <3hrs discharged home	Yes	ER	No	N/A - ED attendance only
Patient in ED/AAU/SSU receives treatment >3hrs discharged home	Yes - only for counting purposes – PUC ED0x001A	ER	Yes – short stay event	ER
Patient in ED receives treatment <3hrs self discharges without indemnity signed	Yes	ES	No	N/A - ED attendance only
Patient in ED/AAU/SSU receives treatment ≥3hrs self discharges without indemnity signed	Yes - only for counting purposes – PUC ED0x001A	ES	Yes – short stay event	ES
Patient in ED receives treatment <3hrs self discharges with indemnity signed	Yes	El	No	N/A - ED attendance only
Patient in ED/AAU/SSU receives treatment ≥3hrs self discharges with indemnity signed	Yes - only for counting purposes – PUC ED0x001A	EI	Yes – short stay event	El
Patient in ED receives treatment <3hrs and dies	Yes - only for counting purposes – PUC ED0x001A	ED	Yes	ED
Patient in ED/AAU/SSU receives treatment ≥3hrs and dies	Yes - only for counting purposes – PUC ED0x001A	ED	Yes	ED
Patient in ED receives treatment <3hrs transferred (discharged) to another facility	Yes	ET	No	N/A - ED attendance only
Patient in ED/AAU/SSU receives treatment ≥3hrs transferred (discharged) to another facility	Yes - only for counting purposes – PUC ED0x001A	ET	Yes – short stay event	ET
Neonatal or burns patient in ED/AAU/SSU receives treatment <3hrs transferred (discharged) to another facility	Yes	EA	No	N/A - ED attendance only

EMERGENCY DEPARTMENT SCENARIOS	NNPAC REPORTING	NNPAC EVENT END TYPE [ED attendance]	NMDS REPORTING	NMDS EVENT END TYPE [ED/AAU/SSU short stay event]
Neonatal or burns patient ED/AAU/SSU receives treatment ≥3hrs transferred (discharged) to another facility	Yes - only for counting purposes – PUC ED0x001A	EA	Yes – short stay event	EA
Patient in ED receives treatment <3hrs admitted to inpatient ward or straight to operating theatre	Yes - only for counting purposes – PUC ED0x001A	DW	Yes Inpatient event	N/A - admit as inpatient
Patient in ED/AAU/SSU receives treatment ≥3hrs admitted to inpatient ward or straight to operating theatre	Yes - only for counting purposes – PUC ED0x001A	DW	Yes Inpatient event	N/A - admit as inpatient
Patient in ED receives treatment <3hrs admitted to geriatric AT&R inpatient ward	Yes - only for counting purposes – PUC ED0x001A	DW	Yes Inpatient event	N/A - admit as inpatient
Patient in ED/AAU/SSU receives treatment ≥3hrs admitted to geriatric AT&R inpatient ward with 'D' health specialty code (*see Note 1 below)	Yes -only for counting purposes – PUC ED0x001A	DW	Yes – short stay event [see Note 1]	DW
Patient in ED/AAU/SSU receives treatment ≥3hrs admitted to geriatric AT&R inpatient ward with a medical/surgical health specialty code	Yes - only for counting purposes – PUC ED0x001A	DW	Yes Inpatient event	N/A - admit as inpatient
Patient transfers from smaller hospital to ED at your bigger hospital, receives treatment <3hrs and is then admitted to inpatient ward or straight to operating theatre	Yes - only for counting purposes – PUC ED0x001A	DW	Yes Inpatient event	N/A - admit as inpatient
Patient transfers from smaller hospital to ED/AAU/SSU at your bigger hospital, receives treatment ≥3hrs and is then admitted to inpatient ward or straight to operating theatre	Yes - only for counting purposes – PUC ED0x001A	DW	Yes Inpatient event	N/A - admit as inpatient
Patient transfers from smaller hospital to ED at your bigger hospital, receives treatment <3hrs and is then transferred (discharged) back to smaller hospital	Yes	ET	No	N/A - ED attendance only
Patient transfers from smaller hospital to ED/AAU/SSU at your bigger hospital, receives treatment >3hrs and is then transferred (discharged) back to smaller hospital	Yes - only for counting purposes – PUC ED0x001A	ET	Yes – short stay event	ET
Mental health patient in ED receives treatment for an acute condition (e.g., self harm) <3hrs transferred (discharged) to inpatient psychiatric unit (within same facility)	Yes	DW	No	N/A - ED attendance only
Mental health patient in ED/AAU/SSU receives treatment for an acute condition (e.g., self harm) ≥3hrs transferred (discharged) to inpatient psychiatric unit (within same facility)	Yes - only for counting purposes – PUC ED0x001A	DW	Yes – short stay event	DW

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EMERGENCY DEPARTMENT SCENARIOS	NNPAC REPORTING	NNPAC EVENT END TYPE [ED attendance]	NMDS REPORTING	NMDS EVENT END TYPE [ED/AAU/SSU short stay event]
Mental health patient in ED receives treatment for an acute condition (e.g., self harm) <3hrs transferred (discharged) to inpatient psychiatric unit (another facility)	Yes	ET	No	N/A -ED attendance only
Mental health patient in ED/AAU/SSU receives treatment for an acute condition (e.g., self harm) ≥3hrs transferred (discharged) to inpatient psychiatric unit (another facility)	Yes - only for counting purposes – PUC ED0x001A	ET	Yes – short stay event	ET
Mental health inpatient sustains an in hospital injury/accident/self harm etc transferred to ED receives treatment <3hrs then transferred back to inpatient psychiatric unit	Yes	DW	No	N/A - ED attendance only
Mental health inpatient sustains an in hospital injury/accident/self harm etc transferred to ED/AAU/SSU receives treatment ≥3hrs then transferred back to inpatient psychiatric unit	Yes - only for counting purposes – PUC ED0x001A	DW	Yes – short stay event	DW [Note 2]
Home hospital inpatient transferred to ED receives treatment <3hrs and is then transferred (discharged) back to home hospital services	Yes	ET	No	N/A - ED attendance only
Home hospital inpatient transferred to ED/AAU/SSU receives treatment ≥3hrs and is then transferred (discharged) back to home hospital services	Yes - only for counting purposes – PUC ED0x001A	ET	Yes – short stay event	ET

Short stay patients discharged from ED/AAU/SSU must have an 'E' event end type code reported to NNPAC and NMDS. The 'E' event end type code should be the same in both NNPAC and NMDS.

Where patients are admitted to an inpatient ward from ED/AAU/SSU the NNPAC event end type code will always be DW *Discharged to other service within same facility*.

#### Note 1:

'Patient in ED/AAU/SSU receives treatment ≥3hrs admitted to Geriatric AT&R inpatient ward with 'D' health specialty code'. Older persons who present to ED with an acute condition who are admitted as an acute inpatient to a geriatric AT&R (older persons) inpatient ward with a 'D' health specialty code is not

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common practice. However where this does occur the reporting requirements are that a separate ED short stay event is to be reported with an event end type of DW Discharged to other service within same facility.

#### Note 2:

For existing inpatients who are transferred from mental health or geriatric AT&R services to ED/AAU/SSU and meet the three (≥3) hour criteria who are then transfer back to these services, must have an ED/AAU/SSU short stay event reported to the NMDS with the health specialty code of M05 Emergency Medicine.

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Event End Type	Event End Type Description	Separation Mode Code
EA	Discharge from Emergency department acute facility to specialist facility for neonates and burns only	1 or 01
ED	Died while still in Emergency department acute facility	8 or 08
EI	Self discharge from treatment in an Emergency department acute facility with indemnity signed	6 or 06
ER	Routine discharge from an Emergency department acute facility	9 or 09
ES	Self discharge from treatment in an Emergency department acute facility without indemnity	6 or 06
ET	Discharge from Emergency department acute facility to another healthcare facility	4 or 04

### **Event End Type Codes - Mapping to Separation Mode**

### **3M<sup>™</sup> Codefinder<sup>™</sup> Separation Mode Codes and Descriptions**

Separation Mode Code	3M Codefinder Separation Mode Description
1 or 01	Discharge/Transfer to an Acute Hospital
2 or 02	Discharge/Transfer to a Residential Ageing Service
3 or 03	Discharge/Transfer to a Psychiatric Hospital
4 or 04	Discharge/Transfer to Other Health Care Accommodation
5 or 05	Statistical Discharge – Type Change
6 or 06	Left Against Medical Advice
7 or 07	Statistical Discharge from Leave
8 or 08	Died
9 or 09	Home/Other

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