Data Dictionary:
Mortality

Mortality Data Dictionary

Welcome to the Mortality Data Dictionary. If you have any feedback or suggestions about this document please don't hesitate to contact us [http://www.hesonline.co.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=377].

Introducing Mortality data

The mortality dataset is created by linking mortality data from the Office for National Statistics (ONS) to patient information in HES. The HES database captures information on deaths only if it occurred in hospital. The death record in HES can be analysed using the diagnoses data which provides information on the condition or disease at the time of death, but does not provide any information on the actual cause of death. Linking mortality data from the ONS with HES created a richer dataset that captures mortality information for people who died both in and outside of hospital. ONS provides additional information not available in HES such as the 'underlying cause of death', which could be used for a wide range of analysis, medical research and healthcare planning.

It is to be noted that the linked data contains mortality information only on people who have attended or have been admitted or treated in hospitals. For more information on the linked mortality data please refer to the HESonline Guide to linked ONS-HES mortality data [http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=1299].

About the data dictionary

This data dictionary contains metadata on those fields from HES and ONS which make up the linked ONS-HES mortality dataset. It also explains some derived fields which provide additional information on the linked data, such as the source and the quality of the linked mortality record.

The HES database is made up of many data items relating to patient care delivered by NHS hospitals in England. Many of these items form part of the national Commissioning Data Set (CDS) and are generated by the patient administration systems within each hospital. ONS collects information on deaths, mainly from the death certificate.

Contents

Data from ONS

Field name	Date of registration
Field	dor
Class	General mortality data
Length and format	dd-mm-yy (Date)
Availability	1998 onwards

Description

Date on which the death was registered.

Value

dd-mm-yy = Date of registration

Data cleaning	Data not cleaned

Field name	Original underlying cause of death
Field	cause_of_death
Class	General mortality data
Length and format	5an
Availability	1998 onwards

Description

This is an ICD* code that identifies the medical condition judged to be the underlying cause of death. Underlying cause of death can be defined as:

a) the disease or injury which initiated the train of morbid events leading directly to death; or

b) the circumstances of the accident or violence which produced the fatal injury.

The underlying cause may be a long-standing, chronic disease or disorder that predisposed the patient to later fatal complications.

ICD - Deaths registered (Date of registration) before 01-Jan-2001 have the Original underlying cause of death and all cause of death mentions coded in ICD-9 and those registered since 01-Jan-2001 are coded in ICD-10.

For further information please refer to the General Register Office website [http://www.gro.gov.uk/medcert/] or The Office for National Statistics website [http://www.statistics.gov.uk/downloads/theme_health/DR2008/DR_08.pdf].

Value

5an = A valid ICD-9 or ICD-10 diagnosis code

Data cleaning	Data not cleaned

Field name	Non-neonatal cause of death
Field	cause_of_death_non_neonatal
Class	Non-neonatal mortality data
Length and format	5an
Availability	1998 onwards

Description

Recorded cause of death mentions for non-neonatal deaths only. These are ICD diagnosis codes.

Deaths registered (Date of registration) before 01-Jan-2001 have the Original underlying cause of death and all cause of death mentions coded in ICD-9 and those registered since 01-Jan-2001 are coded in ICD-10.

Value

5an = A valid ICD-9 or ICD-10 diagnosis code

Data cleaning	Data not cleaned

Field name	Neonatal cause of death
Field	cause_of_death_neonatal
Class	Neonatal mortality data
Length and format	5an
Availability	1998 onwards

Description

Recorded cause of death mentions for neonatal deaths only. These are ICD diagnosis codes.

Deaths registered (Date of registration) before 01-Jan-2001 have the Original underlying cause of death and all cause of death mentions coded in ICD-9 and those registered since 01-Jan-2001 are coded in ICD-10.

Value

5an = A valid ICD-9 or ICD-10 diagnosis code

Data cleaning	Data not cleaned

Field name	Cause of death row position
Field	cause_of_death_row_pos
Class	Neonatal mortality data
Length and format	5an
Availability	1998 onwards

Description

The standard approach for supplying neonatal causes of death on individual record outputs is to provide each cause of death code plus the row position that the code appeared on in the medical certificate.

In the medical certificate –

rows a and b relate to baby causes;

rows c and d relate to maternal causes;

row e can hold causes that relate to either.

Value

1 = cause held in row a

2 = cause held in row b

10 = cause held in row c

11 = cause held in row d

12 = cause held in row e

Data cleaning	Data not cleaned

Field name	Communal establishment
Field	communal_establishment
Class	General mortality data
Length and format	5n or 1a
Availability	1998 onwards

Description

The communal establishment code is a five-digit code derived from the place of death as supplied on the death certificate.

For further information regarding the values in this field please refer to the Connecting for Health website [http://nww.connectingforhealth.nhs.uk/ods/downloads/officenatstats]. Please note that this requires nww. access – contact The National Helpdesk Exeter [exeter.helpdesk@nhs.net] for information regarding the communal codes.

Value

00001-99999 = Communal establishment code

H = Home

E = Elsewhere

Data cleaning	Data not cleaned

Field name	NHS indicator
Field	nhs_indicator
Class	General mortality data
Length and format	1a
Availability	1998 onwards

Description

Indicates whether the communal establishment code refers to an NHS establishment, referring to the physical building rather than the service.

Value

1 = NHS establishment

2 = Non-NHS establishment

Data cleaning	Data not cleaned

Data from HES

Field name	Extract HESID
Field	pseudo_hesid
Class	General mortality data
Length and format	32an
Availability	1998 onwards

Description

This field uniquely identifies a patient across all data years. It is generated by matching records for the same patient using a combination of NHS Number, local patient identifier, provider code, postcode, sex and date of birth.

Customers who request an extract will receive a unique version of the PSEUDO_HESID called the EXTRACT_HESID.

Value

32an = Extract HESID code

Data cleaning	Data not cleaned

Field name	Subsequent activity
Field	subsequent_activity
Class	General mortality data
Length and format	dd-mm-yy (Date)
Availability	1998 onwards

Description

On rare occasions patients may appear to have activity in HES after the mortality record indicates that they have died. This is a data quality issue, either in the patient identifiers (causing an incorrect data linkage between HES and ONS), or due to a patient being incorrectly recorded in HES. These records are flagged with the patients latest activity date in HES and not removed because it is possible that the activity was incorrectly recorded in HES – for example, where a patient had an outpatient appointment, but died before the appointment, resulting in the data being incorrectly sent by the patient administration system (PAS). Often, such records appear in the monthly HES publications, but disappear after the HES annual refresh, as providers correct their submissions. In these cases the flag will be removed once the submission is corrected.

Value

dd-mm-yy = Subsequent activity

Data cleaning	Data not cleaned

Data from HES or ONS

The process uses death records from 2 sources - (1) ONS mortality data for deaths in England and (2) death in hospital from HES. When an ONS record is linked to HES, the record is assigned a HESID. When the same HESID exists in both datasets preference is given to the ONS death record for use. When a HESID exists in both datasets but the date of death differs by more than 3 days, we use the HES death record. When a HES death record does not have a matching ONS record with the same HESID, the HES death record is used. Therefore the following 4 fields can be from either ONS or HES.

Field name	Date of death
Field	dod
Class	General mortality data
Length and format	dd-mm-yy (Date)
Availability	1998 onwards

Description

Date on which the patient died. Where 'Death Record Used' = 'MIX1', 'HES1' or 'HES2', the date of death from HES (discharge date of death episode) is used.

Value

dd-mm-yy = Date of death

Data cleaning	Where 'Death Record Used' = 'MIX1', 'HES1' or 'HES2', APC Data Cleaning Rules 205, 210, 220 and 223 apply

Field name	Primary Care Trust of usual residence of deceased
Field	respct
Class	General mortality data
Length and format	3an or 5n
Availability	1998 onwards

Description

This field contains the code for the primary care trust (PCT) in which the patient lived immediately before the last admission before the date of death.

Value

Alpha-numeric code in the format 'naa' or 'nan' = Primary care trust of residence

59999 = Unknown

59898 = Not applicable

Data cleaning	Data not cleaned

Field name	Sex
Field	sex
Class	General mortality data
Length and format	1n
Availability	1998 onwards

Description

This field contains a code which defines the sex of the patient.

Value

1 = Male

2 = Female

9 = Not specified

0 = Not known

Data cleaning	Data not cleaned

Field name	Strategic health authority of usual residence of deceased
Field	resstha
Class	General mortality data
Length and format	3an or 1a
Availability	1998 onwards

Description

This field contains the code for the strategic health authority (SHA) in which the patient lived immediately before last admission before the date of death.

Value

Alpha-numeric code in the format 'ann' or 'aan' = Strategic health authority of usual residence of the deceased

Y = Unknown

Data cleaning	Data not cleaned

Derived fields

Field name	Death record used
Field	death_record_used
Class	General mortality data
Length and format	4an
Availability	1998 onwards

Description

Indicates the source (HES or ONS) of the death record in the linked HES-ONS mortality data.

Value

ONS1 = Full ONS mortality record used

ONS2 = Full ONS mortality record used

MIX1 = ONS mortality record used, but date of death taken from HES

HES1 = Full HES mortality record used

HES2 = Full HES mortality record used

Data cleaning	Data not cleaned

Field name	Match rank
Field	match_rank
Class	General mortality data
Length and format	1n
Availability	1998 onwards

Description

Indicates the strength of the match between the ONS and HES records.

Value

0 indicates that the death record is present only in HES. Where the death record exists in both ONS and HES, match rank 1 indicates the best match and match rank 8 the worst. For detailed information regarding the matching methodology please refer to the HES mortality data guide on the linked HES-ONS mortality data page on HESonline.
[http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=1299].

Data cleaning	Data not cleaned