

nzhis

New Zealand Health Information Service

NATIONAL MINIMUM DATASET (NMDS)

FILE SPECIFICATION

Version 11.4

August 2004



MINISTRY OF
HEALTH

MANATŪ HAUORA

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New Zealand Health Information Service

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1 Introduction

1.1 Purpose of this document

The NZHIS File Specification describes the file format that is used to send information to NZHIS for inclusion in the National Minimum Dataset. This includes the file layout and, to a lesser extent, the business rules used for validating the data items within the file.

1.2 Intended audience

There are two audiences for this document:

- Software developers designing, implementing and altering provider systems to ensure they export information in a format suitable for loading into the national collection.
- Business analysts verifying that all required data elements are present and specified correctly.

1.3 Related documents

This document should be read in conjunction with the National Minimum Dataset (Hospital Events) Data Dictionary.

1.4 National health information principles

The guiding principles for national health information are:

- the need to protect patient confidentiality and privacy
- the need to collect data once, as close to the source as possible, and use it as many times as required to meet different information requirements, in keeping with the purpose for which it was collected
- the need for standard data definitions, classifications and coding systems
- the requirement for national health data to include only that data which is used, valued and validated at the local level
- the need for connectivity between health information systems to promote communication and integrity
- the need to address Maori health disparities.

1.5 Compliance with standards

All health and disability service providers, agencies and organisations, as defined in the Health Information Privacy Code 1994, accessing or providing national data are required to adhere to and comply with national information standards, definitions and guidelines. Maintaining the integrity and security of the databases and the transmission or exchange of data between health and disability service organisations is essential. This is a shared obligation of all health and disability service agencies.

National data definitions, terms (such as 'ethnicity'), and health information standards are developed and reviewed in consultation with health sector representatives. The National Data Policy Group (NDPG), made up of representatives from the sector, is one of the groups that discusses and approves changes to national data reporting requirements.

Date standards

In order to comply with BSI DISC PD2000-1 1998, which NZHIS has adopted as the required metric for Y2K compliance, all dates submitted in these files must conform in format to ISO 8601 (CCYYMMDD). Dates will normally be required to be provided to day level. Any exception to this will be noted where appropriate. All abbreviated dates must also comply with ISO 8601.

1.6 Connection to national systems

Given the Government's investment in the national health information systems, and because of the requirement for nationally consistent data, health and disability service providers are

required to use the national systems, standards and protocols where reasonable. For this reason health and disability agencies and service providers are encouraged to connect directly to the national systems.

Direct access provides:

- secure communication protocols which meet the privacy requirements,
- improved timeliness of data reporting for monitoring purposes, and
- reduced costs for processing and transmitting data supplied to the national systems.

1.7 Authority for collection of health information

The Ministry of Health's mandate to collect health information is set out in legislation, in particular in section 22 of the Health Act 1956, section 139A of the Hospitals Act 1957, and the Cancer Registry Act 1993. The collection, storage and use of health information is also governed by the Privacy Act 1993, the Health Information Privacy Code 1994, and the Accident Insurance Act 1998.

1.8 Contact

If you have any queries regarding the file layout or the NMDS load process, please contact the NZHIS Helpdesk on 0800 505 125 or e-mail us (operations@nzhis.govt.nz) and quote NMDS file specification version number '11.4'.

2 Changes from Previous Version (Version 11.1)

New Zealand upgraded to the third edition of the International Classification of Diseases – Australian Modification (ICD-10-AM 3rd Edition) as the standard for clinical diagnosis and procedure coding from 1 July 2004. The coding system code for ICD-10-AM 3rd Edition is '12'.

The AR-DRG 4.2 grouper will continue to be used to produce the NMDS Cost Weight file and thus only applies to the NMDS load process at NZHIS. NZHIS will map 3rd edition codes supplied by DHBs to 2nd edition codes and use these to assign an AR-DRG 4.2 code. The Casemix Exclusion Rules (CER) associated with WIES8C will continue to apply to the NMDS load process at NZHIS for the 2004-2005 financial year.

New NMDS business rules are being implemented on 1 July 2004, to:

- ensure collection of valid purchaser codes.
- ensure collection of valid admission type codes.
- generate a warning for records that have an accident flag set to Y and no ACC claim number.
- ensure collection of valid legal status codes.

2.1 Changes from Previous Version (Version 11.2)

The changes to version 11.2 included adding the names of two new legal acts that come into force in 2004, and which will result in changes to the legal status codes used within NMDS.

As there is still uncertainty around the introduction of new legal status codes, these legal acts have been removed, until this matter has been finalised (likely until September 2004).

2.2 Changes from Previous Version (Version 11.3)

The change to version 11.3 was to add the names of two new legal acts that came into force in September 2004.

3 Overview of national collection

Scope	<p>Purpose</p> <p>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.</p> <p>Content</p> <p>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.</p> <p>Data has been submitted electronically in an agreed format by public hospitals since 1993.</p> <p>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.</p>
Start date	<p>The current NMDS was introduced in 1999. The original NMDS was implemented in 1993 and back-loaded with public hospital discharge information from 1988.</p>
Guide for use	<p>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.</p> <p>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.</p>
Contact information	<p>For further information about this collection or to request specific datasets or reports, contact the NZHIS Analytical Services team on ph 04 922 1800, fax 04 922 1897, or e-mail inquiries@nzhis.govt.nz, or visit the NZHIS web site www.nzhis.govt.nz.</p>
Collection methods – guide for providers	<p>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.</p>
Frequency of updates	<p>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.</p> <p>NZHIS has a team of staff who manually process private hospital electronic and paper reports.</p>

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 non-identifiable nature. Researchers requiring identifiable data will usually need approval from an approved Ethics Committee.

National reports and publications

NZHIS publishes an annual report *Selected Morbidity Data for Publicly Funded Hospitals* in hard copy and on the NZHIS web site www.nzhis.govt.nz. 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.

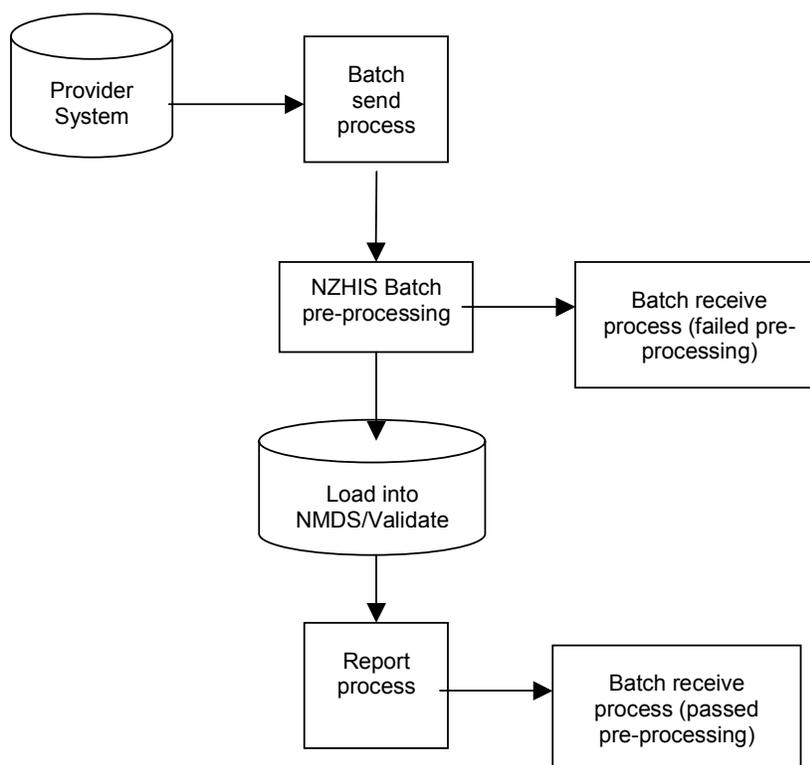
4 Batch processing

4.1 Batch Process Overview

The NMDS processes are carried out by data providers and NZHIS. Providers set up and maintain batch send and batch receive processes to supply the data. They record health events, send the data to NZHIS, and receive acknowledgement of the data processing. NZHIS validates and loads data, and reports from the database.

4.2 Batch Process Flow Diagram

The process flow is shown below along with high-level descriptions of each process.



4.3 Batch send process

This section describes batch reporting, which may be carried out on a daily, weekly, fortnightly, monthly or other basis (by prior arrangement with NZHIS), providing the data reaches NZHIS within 21 days after the month of discharge.

4.3.1 Create Patient Management System batch (input) file

The provider extracts data from their Patient Management System into a batch file (aka input file) for sending to NZHIS. Each input file must contain a header record and an unlimited number of Event Details records. For each Event Detail record, the file can contain from 1 to 99 Diagnosis records, and from 0 to 99 Psychiatric Data records.

The extract file requirements are set out in section 7 and the layout specifications for the input file are set out in section 8 Extract File layouts. The Business Rules for the fields (both coded and non-coded) are described in the NMDS (Hospital Events) Data Dictionary.

4.3.1.1 Event Detail Records

Each Event Detail record in an input file has a message function of 'A1', 'A2' or 'D1'. The effect of these functions on the NMDS is outlined in the following table.

Code	Function	Effect
A1	Add	Creates a new health event if no existing record with the same key is found on the NMDS. If an existing or overlapping record exists, or errors or warnings are generated, the record is rejected.
A2	Add ignoring any warnings	Creates a new health event if no existing record with the same key is found on the NMDS, regardless of any warnings generated. If an existing or overlapping record exists, or errors are generated, the record is rejected.
D1	Delete	Deletes the record from the NMDS.

4.3.2 Send Batch to NZHIS

The batch file is sent to NZHIS via FTP or other means.

4.4 NZHIS Batch Pre-processing

4.4.1 Pre-processing

The input file is initially pre-processed. This checks that:

- the batch is in sequence
- the header record's count of number of records equals the actual number of data records in the file
- the field data types and the number of fields per record are compliant with NMDS requirements.

4.4.2 Batch passes pre-processing

If the batch passes pre-processing, no error file is generated. An acknowledgement file and a Costweight Transaction Report are produced and sent (see *4.7 NMDS output files*), and the data is loaded into the NMDS (see *4.6 Load into the NMDS/Validate* below).

4.4.3 Batch fails pre-processing

If the input file fails pre-processing, an error file (with an extension of '.err') is generated containing error messages indicating the cause of failure. The error file consists of:

- the header record followed by any error messages relating to the header
- each input data record in error followed by one or more error messages.

NZHIS sends the error file to the data provider.

4.5 Batch receive process (pre-processing failed)

If the input file fails pre-processing, the provider must use the error file to correct the input file and resubmit it with the same file name. No further input files will be processed until each file passes the pre-processing stage.

4.6 Load into the NMDS/Validate (pre-processing passed)

The batch is then edited and loaded.

4.6.1 Sorting

Incoming transactions are sorted by:

- the message function (eg, A1, A2 or D1)
- record type (eg, HE, HD, or HC), and
- business key (see 5.1 Data keys).

4.6.2 Validation and errors

Validation continues until all records in the event have been processed. If any record in an event is found to contain an error, the error is identified with the appropriate error message and the whole event is rejected. (Other events in the same input file will be accepted if they are validated.)

4.6.3 Edit checks

Edit checks performed include:

- Field value checks – code tables and range checks.
- Record referential checks – checking for duplicate and overlapping events. See *Appendix B: Duplicate and overlapping event checking rules*.
- Data integrity checks – warning or rejecting if the value is inconsistent with values in other fields. Records that have generated a warning message are loaded into the database if the message function is A2. Demographic data supplied (eg, Sex, Date of birth) must be consistent with the Clinical codes, as specified by the editing flags held against each Clinical code on the Clinical Code table.

4.6.4 WIES and DRG values

WIES values and DRG values are calculated at this stage.

WIES

The Ministry of Health (MoH) currently purchases a range of inpatient events (principally Medical/Surgical Events) from publicly funded hospitals using a casemix methodology known as WIES (Weighted Inlier Equivalent Separations).

The WIES costweight calculator and extract routine are run to derive a Costweight and a Purchase Unit value for a health event based on its allocated AR-DRG, using detailed health event inclusion/exclusion rules specific to New Zealand. It is the financial year that the Health Event End Date falls in which determines which WIES rules are to be applied.

The current version used for the financial year ending the 30 June 2003 is WIES8C, and will continue to apply to the NMDS load process at NZHIS for the 2004-2005 financial year.

DRG

The version of the grouper currently used by NZHIS is AR-DRG 4.2. This is used to derive DRG 'group' values for similar health events for DRG 4.2, 4.1 and 3.1 levels. This is to continue for the 2004-2005 financial year.

From 1 July 2004, NZHIS will map 3rd edition codes supplied by DHBs to 2nd edition codes and use these to assign an AR-DRG 4.2 code.

4.6.5 Loading

If all the records in an event are valid, each delete transaction (D1) is applied to the existing database record it is deleting and each new record (A1 or A2) is added to the database.

4.7 NMDS output files

Editing and loading the input files into the NMDS results in an Acknowledgement file, a Costweight Transaction Report and a formatted error report.

4.7.1 Acknowledgement File

The NMDS program produces an acknowledgement file, which has the same name prefix as the input batch and an extension of '.ndr'. It is supplied by NZHIS to the provider, and reports on all events submitted by the provider to the NMDS.

4.7.1.1 Values calculated for header

The NMDS load process calculates:

- the number of records processed
- the number of records deleted
- the number of records inserted
- the number of records in error, and
- the date file loaded to the NMDS.

These values are supplied back to the provider in the acknowledgement file header record.

4.7.1.2 Error messages in acknowledgement file

If an event is rejected by the NMDS, an error number and error description are provided for each error detected. If the event loaded successfully, an error number of '0' plus 'Data Processed Successfully' will be returned for that event. The acknowledgement file will report all errors generated for an event.

The fields *error number*, *error text*, *diagnosis number*, *legal status date* and *legal status* will be repeated as appropriate for each error message generated by the NMDS load process.

See the layout specifications of the acknowledgement file in section 9 and the input record validation rules in section 12.

4.7.2 Produce Costweight Transaction Report

A file containing the results of the WIES calculation process is produced for each file loaded, giving a subset of information relating to purchase units, and WIES costweights, values, and the variables that are used to calculate them for each record. The file comprises a header record containing file information, and a costweight transaction record for each record loaded.

Key variables within the Costweight Transaction report identifying WIES8C and AR-DRG 4.2 related data include:

- Costweight version (the WIES version used) = '05'
- Release Number (the software release version used to calculate the DRG code) = '4.2'
- DRG Grouper Type (the clinical version of the DRG calculation used) = '04'

4.7.3 Formatted Error Report

A formatted file containing errors only is produced for each file loaded. The report has the same name as the input batch file and an extension of '.sqr'. The provider may print this report. If there are no errors or warnings in the file, the report will still be produced but will contain a count of successful transactions only.

4.8 Batch receive process (pre-processing passed)

The acknowledgement file, error file and the Costweight Transaction Report are sent to the data provider for review.

To resubmit events with errors, data providers must correct the records and resubmit them as part of a new batch.

Records with warning messages may either be updated, or the data confirmed as correct. In the case of confirmations, the event should be resubmitted with a message function of 'A2'.

4.8.1 Corrections and deletes

Each record must be corrected or deleted individually.

To update a health event that has already been loaded into the NMDS, provider systems must send a 'D1' (Delete) record followed by an 'A1' (Add) or 'A2' (Add ignoring any warnings) record. If more than one update has been performed on an event on the provider system during the period covered by the data transfer, then only the latest update should be sent.

To delete a record, only the values in the key fields (see 5.1 Data keys) need be present, but the values must be identical to the existing record in the NMDS.

5 Key relationships

The National Minimum Dataset database has 3 data tables, and a series of lookup tables to hold standard information. The complete data model can be found in section 6.

The most significant relationships are shown in the data model in section 6.

5.1 Data keys

Each record has a unique primary key consisting of:

- NHI number
- Event type code
- Event start date
- Facility code
- Event local identifier.

The primary key is used to check for duplicates on insert, or check for existence on delete. During the load process, the NMDS checks that the data key is unique.

For Diagnosis (HD) records, the key also includes Diagnosis number.

nmdds_batch_tab		
batch_id	int	<pk>
filename	varchar(12)	
source_type	char(1)	
directory	varchar(128)	
batch_status	char(1)	
agency_code	char(4)	
date_file_sent	datetime	
processing_environment	char(4)	
date_processed	datetime	
date_received	datetime	
date_gathered	datetime	
date_loaded	datetime	
date_returned	datetime	
date_site_notified	datetime	
processing_time	int	
filename_received	varchar(12)	
predecessor	int	
mask_id	int	
edit_sequence	int	
returned_by_operator	char(4)	
error_file_generated	bit	
expected	int	
processed	int	
valid	int	
errors	int	
warnings	int	
deleted	int	
events_processed	int	
events_accepted	int	
events_inserted	int	
events_deleted	int	
events_updated	int	
error_summary	varchar(255)	
notes	varchar(255)	

diagnosis_procedure_tab		
event_id	int	<pk>
diagnosis_sequence	smallint	<pk>
clinical_code_system	char(2)	<pk>
clinical_code_type	char(1)	<pk>
clinical_code	varchar(8)	<pk>
submitted_system_id	char(2)	
diagnosis_number	int	
batch_id	int	
transaction_id	int	
diagnosis_description	varchar(70)	
diagnosis_type	char(1)	
procedure_acc_date	datetime	
procedure_acc_date_flag	char(1)	

cancer_load_tab		
event_id	int	<pk>
basis_code	char(1)	
stage_code	char(1)	
melanoma_invasion_level	char(1)	
melanoma_thickness	char(6)	
laboratory_code	char(4)	
diagnosis_sequence	smallint	<pk>

event_legal_status_tab		
event_id	int	<pk>
legal_status_code	char(2)	<pk>
legal_status_date	datetime	<pk>
batch_id	int	
transaction_id	int	

nmdds_provider_tab		
file_acronym	char(3)	<pk>
application_code	varchar(4)	<pk>
agency_code	char(4)	
facility_code	char(4)	
transfer_method	char(2)	
active_flag	char(1)	

event_to_diagnosis_type_tab		
event_type	char(2)	<pk>
diagnosis_type	char(1)	<pk>
cardinality	char(1)	
optionality	char(1)	

operational_totals_tab		
program_name	varchar(30)	
object_name	varchar(30)	
filename	varchar(100)	
deletes_unloaded	int	
updates_unloaded	int	
inserts_unloaded	int	
deletes_loaded	int	
updates_loaded	int	
inserts_loaded	int	
run_time	datetime	

nmdds_error_tab		
error_id	int	<pk>
application_code	varchar(4)	
error_message	varchar(255)	
source	varchar(128)	
description	varchar(255)	
error_type	char(1)	
last_updated	datetime	
updated_by	varchar(30)	
reason	varchar(255)	

legal_status_tab		
legal_status_code	char(2)	<pk>
legal_status_description	varchar(70)	
legal_status_start_date	datetime	
legal_status_end_date	datetime	

domicile_code_conversion_tab		
domicile_code_new	char(4)	<pk>
description_new	varchar(50)	
domicile_code_old	char(4)	
description_old	varchar(50)	

drg_code_tab		
drg_group_type	varchar(2)	<pk>
drg_code	varchar(4)	<pk>
drg_code_description	varchar(110)	

nmdds_hcu_delete_tab		
hcu_id	char(7)	

dhb_tab		
dhb_code	char(3)	
dhb_name	varchar(40)	

purchase_unit_tab		
purchase_unit	varchar(10)	<pk>
purchase_unit_description	varchar(70)	

agency_type_tab		
agency_type	char(2)	<pk>
agency_type_description	varchar(70)	

rollforward_delete_load		
evnt_id	int	
evnt_diag_num	int	
lgl_sts	char(2)	
evnt_lgl_sts_date	datetime	

nmdds_event_delete_load		
event_id	int	<pk>
batch_id	int	

nmdds_hcu_delete_load		
hcu_id	char(7)	

nmdds_diagnosis_procedure_load		
event_id	int	<pk>
diagnosis_sequence	smallint	<pk>
clinical_code_system	char(2)	<pk>
clinical_code_type	char(1)	<pk>
clinical_code	varchar(8)	<pk>
submitted_system_id	char(2)	
diagnosis_number	int	
batch_id	int	
transaction_id	int	
diagnosis_description	varchar(70)	
diagnosis_type	char(1)	
procedure_acc_date	datetime	
procedure_acc_date_flag	char(1)	

nmdds_cost_weight_load		
event_id	int	<pk>
batch_id	int	
cost_weight	numeric(9,4)	
cost_weight_code	char(2)	
nz_drg_code	char(4)	
purchase_unit	varchar(10)	

nmdds_event_legal_status_load		
event_id	int	<pk>
legal_status_code	char(2)	<pk>
legal_status_date	datetime	<pk>
batch_id	int	
transaction_id	int	

nmlds_health_event_load		
event_id	int	<pk>
encrypted_hcu_id	char(11)	
domicile_code	char(4)	
gender_code	char(1)	
occupation_code	char(4)	
prioritised_ethnic_code	char(2)	
ethnic_code	char(2)	
ethnic_code_2	char(2)	
ethnic_code_3	char(2)	
nz_resident_status	char(1)	
country_code	char(3)	
date_of_birth	datetime	
date_of_birth_flag	char(1)	
event_type	char(2)	
event_local_id	char(1)	
event_start_date	datetime	
event_end_date	datetime	
event_end_type	char(2)	
surgical_priority	char(1)	
facility_code	char(4)	
facility_type	char(2)	
health_specialty_code	char(3)	
admission_source_code	char(1)	
admission_type	char(2)	
drg_group_type	varchar(2)	
drg_code_v30	char(3)	
drg_code_v31	char(3)	
mdc_type	char(1)	
mdc_code	char(2)	
referral_date	datetime	
referral_date_flag	char(1)	
first_consult_date	datetime	
first_consult_date_flag	char(1)	
date_surgery_decided	datetime	
event_leave_days	char(3)	
event_extra_information	varchar(90)	
suppression_flag	char(1)	
transaction_id	int	
batch_id	int	
filename	varchar(32)	
last_updated_date	datetime	
purchaser_code	char(2)	
agency_code	char(4)	
weight_on_admission	int	
month_of_data	char(2)	
year_of_data	char(4)	
length_of_stay	char(5)	
age_at_admission	int	
age_at_discharge	char(3)	
financial_year_bad	char(4)	
client_system_identifier	varchar(14)	
hours_on_ventilation	char(5)	
tla	char(3)	
publicly_funded	char(1)	
private	char(1)	
old_psychiatric_hospital	char(1)	
new_psychiatric_hospital	char(1)	
new_public_mh	char(1)	
old_public_mh	char(1)	
public_birth	char(1)	
accident_flag	char(1)	
acc_claim_number	char(12)	
acc_claim_rejected	char(1)	
birth_weight	char(4)	
gestation_period	char(2)	
birth_status	char(1)	
age_of_mother	char(2)	
location_code	char(1)	
psychiatric_leave_end_type	char(1)	
date_psychiatric_leave_ends	datetime	
mh_readmission_indicator	char(1)	
hp_event_id	int	
occupation_free_text	varchar(70)	
cost_weight	numeric(9,4)	
cost_weight_code	char(2)	
ccl	char(1)	
purchase_unit	varchar(10)	
financial_year	char(8)	
mh_event_flag	char(1)	
cancer_event_flag	char(1)	
pms_unique_identifier	varchar(14)	
hours_on_cpap	char(5)	
drg_code_current	char(4)	
pcc	char(1)	

diagnosis_type_tab	
diagnosis_type	
diagnosis_type_description	
☐ shared_obj..diagnosis_type_tab	

public_health_event_tab	
selectevent_id	
encrypted_hcu_id	
domicile_code	
gender_code	
occupation_code	
prioritised_ethnic_code	
ethnic_code	
ethnic_code_2	
ethnic_code_3	
nz_resident_status	
country_code	
date_of_birth	
date_of_birth_flag	
event_type	
event_local_id	
event_start_date	
event_end_date	
event_end_type	
surgical_priority	
facility_code	
facility_type	
health_specialty_code	
admission_source_code	
admission_type	
drg_group_type	
drg_code_v30	
drg_code_v31	
mdc_type	
mdc_code	
referral_date	
referral_date_flag	
first_consult_date	
first_consult_date_flag	
date_surgery_decided	
event_leave_days	
event_extra_information	
suppression_flag	
transaction_id	
batch_id	
last_updated_date	
purchaser_code	
agency_code	
weight_on_admission	
month_of_data	
year_of_data	
length_of_stay	
age_at_admission	
age_at_discharge	
financial_year	
client_system_identifier	
hours_on_ventilation	
tla	
publicly_funded	
private	
old_psychiatric_hospital	
new_psychiatric_hospital	
new_public_mh	
old_public_mh	
public_birth	
accident_flag	
acc_claim_number	
acc_claim_rejected	
birth_weight	
gestation_period	
birth_status	
age_of_mother	
location_code	
psychiatric_leave_end_ty	
date_psychiatric_leave_e	
mh_readmission_indicato	
hp_event_id	
☐ health_event_tab	

hcu_tab	
hcu_id	
master_hcu_id	
encrypted_hcu_id	
master_encrypted_hcu_id	
date_of_death	
☐ shared_obj.dbo.hcu_tab	

clinical_code_chapter_tab	
clinical_code_system	
chapter	
chapter_description	
☐ shared_obj..clinical_code_chapter_tab	

clinical_code_tab	
clinical_code	
clinical_code_type	
clinical_code_system	
clinical_code_description	
death_flag	
gender_flag	
low_age	
high_age	
nomal_nz_flag	
external_cause_flag	
unacceptable_diagnosis_flag	
nonspecific_diagnosis_flag	
operation_flag	
collection_type	
dagger_astensk	
category	
sub_category	
block	
chapter	
sub_chapter	
code_start_date	
code_end_date	
eligible_cancer_status	
☐ shared_obj..clinical_code_tab	

diagnosis_conversion_tab	
conversion_type	
clinical_code_type_from	
clinical_code_from	
clinical_code_type_to	
clinical_code_to	
comments	
last_updated	
updated_by	
reason	
☐ shared_obj..diagnosis_conversion_tab	

clinical_coding_system_tab	
clinical_code_system	
clinical_system_description	
sys_start_date	
sys_end_date	
☐ shared_obj..clinical_coding_system_tab	

diagnosis_to_clinical_type_tab	
clinical_code_system	
clinical_code_type	
diagnosis_type	
from_range	
to_range	
☐ shared_obj..diagnosis_to_clinical_type_!	

clinical_code_type_tab	
clinical_code_type	
clinical_code_type_description	
☐ shared_obj..clinical_code_type_tab	

clinical_code_block	
block	
block_short_description	
block_long_description	
block_publication_description	
☐ shared_obj..clinical_code_block	

clinical_code_category	
category	
category_short_description	
category_long_description	
category_publication	
☐ shared_obj..clinical_code_category	

clinical_code_sub_chapter_tab	
clinical_code_system	
sub_chapter	
sub_chapter_description	
☐ shared_obj..clinical_code_sub_chapter_	

occupation_aud	
occupation_code	char(4)
occupation_code_description	varchar(70)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

diagnos_conversion_rule_meta	
conversion_type	char(4)
clinical_code_type	char(1)
clinical_code	varchar(8)
modifier_group	smallint
modified_by_group	smallint
subgroup	varchar(50)

gender_aud	
gender_code	char(1)
gender_description	varchar(70)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

country_code_aud	
country_code	char(3)
country_code_description	varchar(70)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

agency_type_aud	
agency_type	char(2)
agency_type_description	varchar(70)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

health_specialty_aud	
health_specialty_code	char(3)
health_specialty_description	varchar(70)
specialty_full_description	varchar(255)
mental_health_inpatient_flag	char(1)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

diagnos_conversion_pair_meta	
conversion_type	char(4)
clinical_code_type	char(1)
clinical_code_from1	varchar(8)
clinical_code_type_from2	char(1)
clinical_code_from2	varchar(8)
clinical_code_to1	varchar(8)
clinical_code_to2	varchar(8)

agency_aud	
agency_code	char(4)
agency_name	varchar(50)
agency_address	varchar(85)
agency_type	char(2)
agency_open_date	datetime
agency_close_date	datetime
region	char(2)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

domicile_code_conversion_aud	
domicile_code_new	char(4)
domicile_code_old	char(4)
domicile_code	varchar(50)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

ethnic_code_aud	
ethnic_code	char(2)
ethnic_code_description	varchar(70)
priority	smallint
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

facility_aud	
agency_code	char(4)
facility_code	char(4)
facility_name	varchar(50)
facility_type	char(2)
facility_address	varchar(85)
facility_open_date	datetime
facility_close_date	datetime
domicile_code	char(4)
region	char(2)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

legal_status_aud	
legal_status_code	char(2)
legal_status_description	varchar(70)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

drg_code_aud	
drg_groupier_type	varchar(2)
drg_code	char(3)
drg_code_description	varchar(110)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

drg_groupier_type_aud	
drg_groupier_type	varchar(2)
drg_groupier_type_description	varchar(70)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

admission_type_aud	
admission_type	char(2)
admission_type_description	varchar(70)
admission_type_start_date	datetime
admission_type_end_date	datetime
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

health_event_aud	
event_id	int
encrypted_hou_id	char(11)
domicile_code	char(4)
gender_code	char(1)
occupation_code	char(4)
priority_ethnic_code	char(2)
ethnic_code	char(2)
ethnic_code_2	char(2)
ethnic_code_3	char(2)
nz_resident_status	char(1)
country_code	char(3)
date_of_birth	datetime
date_of_birth_flag	char(1)
event_type	char(2)
event_local_id	char(1)
event_start_date	datetime
event_end_date	datetime
event_end_type	char(2)
surgical_priority	char(1)
facility_code	char(4)
facility_type	char(2)
health_specialty_code	char(3)
admission_source_code	char(1)
admission_type	char(2)
drg_groupier_type	varchar(2)
drg_code_v30	char(3)
drg_code_v31	char(3)
mdc_type	char(1)
mdc_code	char(2)
referral_date	datetime
referral_date_flag	char(1)
first_consult_date	datetime
first_consult_date_flag	char(1)
date_surgery_decided	datetime
event_leave_days	char(3)
event_extra_information	varchar(90)
appression_flag	char(1)
transaction_id	int
batch_id	int
last_updated_date	datetime
purchaser_code	char(2)
agency_code	char(4)
weight_on_admission	int
month_of_data	char(2)
year_of_data	char(4)
length_of_stay	char(5)
age_at_admission	int
age_at_discharge	char(3)
financial_year	char(8)
client_system_identifier	varchar(14)
hours_on_ventilation	char(5)
tia	char(3)
publicly_funded	char(1)
private	char(1)
old_psychiatric_hospital	char(1)
new_psychiatric_hospital	char(1)
new_public_mh	char(1)
old_public_mh	char(1)
public_birth	char(1)
accident_flag	char(1)
acc_claim_number	char(12)
acc_claim_rejected	char(1)
birth_weight	char(4)
gestation_period	char(2)
birth_status	char(1)
age_of_mother	char(2)
location_code	char(1)
psychiatric_leave_end_type	char(1)
date_psychiatric_leave_ends	datetime
mh_readmission_indicator	char(1)
hp_event_id	int
occupation_free_text	varchar(70)
cost_weight	numeric(9,4)
cost_weight_code	char(2)
cdi	char(1)
purchase_unit	varchar(10)
pms_unique_identifier	varchar(14)
hours_on_opap	char(5)
drg_code_current	char(4)
pcod	char(1)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

mdc_code_aud	
drg_groupier_type	varchar(2)
mdc_code	char(2)
mdc_description	varchar(70)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

location_aud	
location_code	char(1)
location_description	varchar(70)
facility_type	char(2)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

mdc_type_aud	
mdc_type	char(1)
mdc_type_description	varchar(70)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

event_to_diagnosis_type_aud	
event_type	char(2)
diagnosis_type	char(1)
cardinality	char(1)
optionality	char(1)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

purchaser_code_aud	
purchaser_code	char(2)
purchaser_code_description	varchar(70)
purchaser_address	varchar(85)
purchaser_start_date	datetime
purchaser_end_date	datetime
submitted_system_id	char(2)
diagnosis_number	int
batch_id	int
transaction_id	int
diagnosis_description	varchar(70)
diagnosis_type	char(1)
procedure_acc_date	datetime
procedure_acc_date_flag	char(1)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

diagnosis_procedure_aud	
event_id	int
diagnosis_sequence	smallint
clinical_code_system	char(2)
clinical_code_type	char(1)
clinical_code	varchar(8)
submitted_system_id	char(2)
diagnosis_number	int
batch_id	int
transaction_id	int
diagnosis_description	varchar(70)
diagnosis_type	char(1)
procedure_acc_date	datetime
procedure_acc_date_flag	char(1)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

domicile_code_aud	
domicile_code	char(4)
domicile_code_description	varchar(70)
tia	char(3)
domicile_code_status	char(1)
year_of_census	int
area_unit_code	int
retired_year	smallint
dhb_code	char(3)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

operational_totals_aud	
program_name	varchar(30)
object_name	varchar(30)
filename	varchar(100)
deletes_unloaded	int
updates_unloaded	int
inserts_unloaded	int
deletes_loaded	int
updates_loaded	int
inserts_loaded	int
run_time	datetime
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

facility_type_aud	
facility_type	char(2)
facility_type_description	varchar(70)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

nmds_provider_aud	
file_acronym	char(3)
application_code	varchar(4)
agency_code	char(4)
facility_code	char(4)
transfer_method	char(2)
active_flag	char(1)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

admission_source_aud	
admission_source_code	char(1)
admission_source_description	varchar(70)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

psychiatric_leave_end_type_aud	
psychiatric_leave_end_type	char(1)
psychiatric_leave_description	varchar(70)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

nmds_non_public_purchaser_meta	
start_date	datetime
end_date	datetime
purchaser_code	char(2)

event_type_aud	
event_type	char(2)
event_type_description	varchar(70)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

census_tab	
census_year	smallint
census_start_date	datetime
census_end_date	datetime

nmds_batch_aud	
batch_id	int
filename	varchar(12)
source_type	char(1)
directory	varchar(128)
batch_status	char(1)
agency_code	char(4)
date_file_sent	datetime
processing_environment	char(4)
date_processed	datetime
date_received	datetime
date_gathered	datetime
date_loaded	datetime
date_site_notified	datetime
processing_time	int
filename_received	varchar(12)
predecessor	int
mask_id	int
edit_sequence	int
returned_by_operator	char(4)
error_file_generated	bit
expected	int
processed	int
valid	int
errors	int
warnings	int
deleted	int
events_processed	int
events_inserted	int
events_deleted	int
events_updated	int
error_summary	varchar(255)
notes	varchar(255)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

surgical_priority_aud	
surgical_priority	char(1)
surgical_priority_description	varchar(70)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

nmds_error_aud	
error_id	int
application_code	char(3)
error_message	varchar(255)
source	varchar(128)
description	varchar(255)
error_type	char(1)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

nmds_event_id_meta	
event_id	int
spk	spk

cost_weight_aud	
cost_weight_code	char(2)
cost_weight_description	varchar(70)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

event_end_type_aud	
event_end_type	char(2)
event_end_description	varchar(70)
separation_mode	char(2)
image_type	char(1)
transaction_type	char(1)
user_id	varchar(30)
audit_date	datetime

nmds_public_facility_type_meta	
start_date	datetime
end_date	datetime
facility_type	char(2)

7 Extract file requirements

7.1 Batch File Name

The file naming convention to be used to supply batches to the NMDS consists of the following elements:

- a three-letter acronym allocated to each sending agency by NZHIS;
- a sequential number to uniquely identify each batch; and
- a file extension allocated by NZHIS (‘.ndm’ for NMDS upload files).

For example, a typical file name for Capital Coast Health would be ‘CCH00001.ndm’.

File name checking is case sensitive.

7.2 Batch File Format

The file is in ASCII format, where:

- records are delimited by carriage return and line feed (ASCII 13 and ASCII 10)
- fields are variable in length and delimited by commas, with text fields enclosed in quotation marks
- if no data is supplied for a field (a null field), this should be represented by a delimiter followed by another delimiter.

Fields are typed as:

- Character – contains alphabetic characters (excluding commas)
- Numeric – contains numeric characters
- Text – contains alphabetic characters (including commas) enclosed within double quotes.

Definition	Data	Interpretation
varchar(4)	,1,	"1"
char(4)	,1,	"1 "
char(4)	,1234,	"1234"
char(3)	,a12,	"a12"
num(3)	,1,	1
text(16)	,"some text ",	"some text"
text(16)	,"punctuated, text",	"punctuated, text"

7.2.1 Mandatory/Optional Fields

Please note that the M/O column in the record specifications indicates whether a field must be populated or may be null. All records are fixed format, ie, all fields are mandatory and where no data is being sent a field delimiter must be present.

7.2.2 Dates and partial dates

Dates are CCYYMMDD unless otherwise specified. For fields where partial dates are permitted, CCYY0000 is the minimum value (stored as CCYY0101 with date flag set to ‘M’) and CCYYMM00 is acceptable (stored as CCYYMM01 with date flag set to ‘D’), but CCYY00DD will be rejected. For dates provided as CCYYMMDD, the date flag is set to null.

Dates are sent as char and stored as datetime.

See also *1.5 Compliance with standards*.

7.2.3 Code Table Values

Allowable values for the code fields are listed in the NMDS (Hospital Events) Data Dictionary.

7.3 Valid records

This section provides a summary of the types of records that can be submitted to or are produced by the NMDS.

7.3.1 Input File (eg, CCH00001.ndm)

Level	Record type (logical/physical)	Record name	Physical record identifier	Occurrence	Format (fixed / variable)	Length (fixed/variable)	Length (bytes)
02	P	Header record	HR	1	F	F	42
02	L	Transaction record		1-n	V	V	
03	L	Insert transaction		0-1			
04	P	Health event record	HE	1	F	V	
04	L	Event details record		1-n			
05	P	Diagnoses record	HD	1-99	F	V	
05	P	Psychiatric data record	HC	0-99	F	F	43
03	P	Delete transaction	HE	0-1	F	V	

7.3.2 Acknowledgement File (eg, CCH00001.ndr)

Level	Record type (logical/physical)	Record name	Physical record identifier	Occurrence	Format (fixed / variable)	Length (fixed/variable)	Length (bytes)
02	P	Acknowledgement header record	AH	1	F	F	75
02	P	Acknowledgement record	AK	1-n	F	V	

7.3.3 Costweight File (eg, CCH00001.ndw)

The costweight file is an output of the WIES calculation which uses a combination of elements including DRG, specialty code and purchase units.

Level	Record type (logical/physical)	Record name	Physical record identifier	Occurrence	Format (fixed / variable)	Length (fixed/variable)	Length (bytes)
02	P	Header record	WH	1	F	F	42
02	P	Transaction record	WT	1-n	F	V	121

7.3.4 Error File (eg, CCH00001.err)

This file is generated only if the input file is rejected.

Level	Record type (logical/ physical)	Record name	Physical record identifier	Occurrence	Format (fixed / variable)	Length (fixed/ variable)	Length (bytes)
02	P	Return header	FH	1	F	F	42
02	P	File failure	FF	1-n	F	V	

8 Extract file layouts

8.1 Input File Header (HR) Record

An input file header record is mandatory for all files. This contains control information from the data provider's system.

Field name	Definition	Size	Data type	Format	M/O	Notes
Record type	Code identifying the type of input record.	2	char	AA	M	'HR' (header record)
Agency code	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.	4	char	XXXX	M	Must be a valid code in the Agency code table.
File name of input file					M	Refer <i>section 7.1 Batch File Name</i> .
acronym		3	char	AAA	M	Assigned by NZHIS.
batch number		5	char	NNNNN	M	
extension		4	char	XAAA	M	' ,ndrn' (ASCII hex string 2E 6E 64 6D)
Number of records		5	char	NNNNN	M	Count of physical records. Includes the header record. Must contain the exact number of records in the file. Left-padded with zeroes.
Date sent		8	char	CCYYMMDD	M	Date in ISO 8601 format to day level.
NZHIS processing environment	This field determines which environment the data is loaded into.	4	char	AAAA	M	'PROD' for the Production Environment or 'TEST' for the Compliance Testing Environment.
File version		6	char	NNNN.N	M	'V011.0' for files submitted in this layout.

8.2 Input File Event Details (HE) Record

This is the main record and is stored in the Health Event table.

Field name	Definition	Size	Data type	Format	M/O	Notes
Record type	Code identifying the type of input record.	2	char	AA	M	'HE' (hospital health event)
NHI number	The unique identification number assigned to a healthcare user by the National Health Index (NHI) database.	7	char	AAAANNNN	M	System-generated 3 alpha plus 4 numeric, the last of which is a check digit. Must be registered on the NHI before use.
Event type code	Code identifying the type of health event.	2	char	AA	M	Must be a valid code in the Event Type code table. Only one birth event (Event type 'BT') is allowed for each NHI number. Babies born before the mother's admission to hospital or transferred from the hospital of birth are recorded as 'IP'. The presence of some fields depends on the Event type code. See Appendix A: Enhanced Event Type/Event Diagnosis Type Table.
Event start date	The admission date on which a healthcare event began.	8	char	CCYYMMDD	M	Must be on or before the date of load and the Event end date. Must be the same as the Date of birth for birth events (Event type 'BT'). Partial dates not allowed.

Field name	Definition	Size	Data type	Format	M/O	Notes
Facility code	A code that uniquely identifies a healthcare facility. 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.	4	char	XXXX	M	The facility that provided the service or treatment. Must be a valid code in the Facility code table.
Event local identifier	Local system-generated number to distinguish two or more events of the same type occurring on the same day at the same facility.	1	char	N	M	Historically, Event local identifier was created on the pre-1993 Paxus national patient management system using '9' for the first event then '8, 7, ..., 1' for other events with the same primary key. This convention must be used when updating historical events. For consistency, use this convention for all events.
Message function	Code to indicate what action to take with this HE input record.	2	char	XX	M	All events should initially be sent as A1. If warning messages are returned then event may be resubmitted as A2. The A2 record cannot be used to override error messages. D1 records may contain only key fields and control information. No mandatory field checking will be done for other fields in D1 records. Refer 4.3.1.1 Event Detail Records.

Field name	Definition	Size	Data type	Format	M/O	Notes
Domicile code	Statistics NZ Health Domicile Code representing a person's usual residential address. Also used for facility addresses. Usual residential address is defined as the address at which the person has been, or plans to be, living for 3 months or more. (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.	4	char	XXXX	M	Must be a valid code in the Domicile code table. For Event end dates: - before 1 July 1998, the 1991 codes apply - from 1 July 1998 to 20 June 2003, the 1996 codes apply - on or after 1 July 2003, the 2001 codes apply. If the Event end date is blank, check the Event start date and that the status of the code is current. If not current, generates an error message. If the Event end date (or, if the Event end date is blank, the Event start date) is less than 1 July 1998 and Year of census is 1996 or 2001 then convert new domicile back to the 1991 code. If the Event end date (or, if the Event end date is blank, the Event start date) is between 1 July 1998 and 30 July 2003 and Year of census is 2001, then convert new domicile back to the 1996 code.
Sex	The person's biological sex.	1	char	A	M	Must be a valid code in the Gender code table. Generates warning if Sex code is 'U'. Must be consistent with the diagnosis and procedure codes for the record to be loaded. Otherwise results in a warning.

Field name	Definition	Size	Data type	Format	M/O	Notes
Date of birth	The date on which the person was born.	8	char	CCYYMMDD	M	Must be on or before the Event start date and the date of load. Must equal Event start date if Birth event (Event type 'BT'). Must be consistent with the diagnosis and procedure codes for the record to be loaded. Otherwise results in a warning. Used to calculate age (normally at Event end date). Partial dates allowed.
Ethnic group code 1	A social group whose members have one or more of the following four characteristics: - they share a sense of common origins - they claim a common and distinctive history and destiny - they possess one or more dimensions of collective cultural individuality - they feel a sense of unique collective solidarity.	2	char	NN	M	From 1 July 1996, healthcare users can select multiple values for ethnicity. The Statistics NZ prioritisation algorithm is to be used by healthcare providers if more than three values are selected; only up to three values should be reported to the NMDS. At least one value must be supplied. If two further values are available, then these must also be supplied. Each Ethnic group code in a record must be different. Must be a valid code in the Ethnic code table.
Ethnic group code 2	As above.	2	char	NN	O	As above.
Ethnic group code 3	As above.	2	char	NN	O	As above. If supplied, Ethnic group code 2 must not be null.

Field name	Definition	Size	Data type	Format	M/O	Notes
NZ resident status	A code identifying resident status at the time of this event. 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.	1	char	A	M	Y N Permanent resident Temporary (not a NZ citizen; does not have NZ permanent resident status)
Admission source code	A code used to describe the nature of admission (routine or transfer) for a hospital inpatient health event.	1	char	A	M	Must be a valid code in the Admission Source code table. R Routine T Transfer from another hospital facility
Health specialty code	A classification describing the specialty or service to which a healthcare user has been assigned, which reflects the nature of the services being provided.	3	char	ANN	M	Must be a valid code in the Health Specialty code table.
Admission type code	A code used to describe the type of admission for a hospital healthcare health event.	2	char	AA	M	Must be a valid code in the Admission Type code table. The Admission Type end date for the Admission Type code provided must be greater than the event end date.
Event end type code	A code identifying how a healthcare event ended.	2	char	AA	O	Must be a valid code in the Event End Type code table. Optional for psychiatric inpatient events (Event type 'IM'). Mandatory for all other event types.

Field name	Definition	Size	Data type	Format	M/O	Notes
Event end date	The date on which a healthcare user is discharged from a facility (ie, the date the healthcare event ended) or the date on which a sectioned mental health patient is discharged to leave.	8	char	CCYYMMDD	O	Optional for psychiatric inpatient events (Event type 'IM'). Mandatory for all other event types. Must be on or before the date of load and the Psychiatric leave end date. Must be on or after the Event start date, the Date of birth, the Operation/procedure date, and the External cause date of occurrence. Must be on or before the date of load. Paired field with Event end type code. Partial dates not allowed.
Country of birth code	Coded value for the country of birth as assigned from the Statistics NZ Country Code list (NZSCC86).	3	char	NNN	O	Must be a valid code in the Country code table. 004 – 999
Occupation code	The current occupation of a healthcare user, classified according to the Statistics NZ Standard Classification of Occupations (NZSCCO90).	4	char	NNNN	O	Must be a valid code in the Occupation code table. 0111 – 9900
Occupation free-text	Free-text description of the patient's occupation.	Max 70	varchar	X(70)	O	Free text enclosed in quotation marks (""). For internal NZHIS use. It may be used to supply a description of the patient's occupation for all events at the discretion of the provider. The Injury Prevention Unit (of the Otago Medical School) has also identified this information as useful for events for which an accident is reported.
Birth location	The location of the birth delivery of a healthcare user.	1	char	N	O	Mandatory for birth events (Event type 'BT'). 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 for the Facility supplied with this event.

Field name	Definition	Size	Data type	Format	M/O	Notes
Birthweight	Weight of infant at time of birth, in grams.	4	char	NNNN	O	Mandatory for birth events (Event type 'BT'). Must not be supplied for other event types. 0001 – 9999 (default is '9000'). Records reporting 0001 to 0399 grams will only be accepted on confirmation (Message function 'A2'). Must contain 4 characters. For infants under 1000 grams, the field must be supplied with a leading zero.
Gestation period	Time measured from the date of mother's last menstrual period to the date of birth and expressed in completed weeks.	2	char	XX	O	No negative numbers. Mandatory for birth events (Event type 'BT'). Must not be supplied for other event types. 10 – 50 completed weeks ('XX' = Not stated) If outside 17 to 45 completed weeks, will only be accepted on confirmation (Message function 'A2').
Birth status	Field which records whether an infant was still or liveborn.	1	char	A	O	Mandatory for birth events (Event type 'BT'). Must not be supplied for other event types. L Liveborn S Stillborn
Age of mother	Age of mother in years at time of birth of infant.	2	char	NN	O	Mandatory for birth events (Event type 'BT'). Must not be supplied for other event types. 00 – 99 (defaults is '00') If outside 12 to 54 years, will only be accepted on confirmation (Message function 'A2').

Field name	Definition	Size	Data type	Format	M/O	Notes
Date of referral	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.	8	char	CCYYMMDD	O	Must be on or before the date of load, the Event start date, and the Event end date. Must be on or after the Date of birth. Partial dates allowed.
Date first specialist consultation	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.	8	char	CCYYMMDD	O	Must be on or before the date of load, the Event start date, and the Event end date. Must be on or after the Date of birth. Partial dates allowed.
Date surgery decided	The date on which the healthcare user was assessed as requiring surgery.	8	char	CCYYMMDD	O	Must be on or before the date of load, the Event start date, and the Event end date. Must be on or after the Date of birth. Partial dates not allowed.
Event leave days	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. Where there is more than one period of leave during an episode, accumulated leave days should be reported.	3	char	NNN	O	Must be null or greater than zero. Must not be greater than the difference in days between Event start date and Event end date. No negative numbers.
Event supplementary information	Enables extra information concerning an event to be recorded in a free-text format.	Max 90	varchar	X(90)	O	Free text enclosed in quotation marks ("").

Field name	Definition	Size	Data type	Format	M/O	Notes
Event summary suppress flag	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.	1	char	A	M	Y suppress this event summary N allow this event summary to be displayed
Psychiatric leave end date	The date on which a committed mental health patient's period of leave ended.	8	char	CCYYMMDD	O	Must only be present when Event end type is 'DL'. Must be on or before the date of load. Must be on or after the Event start date, the Date of birth, the Date of referral, the Date of first specialist consultation, and the Date surgery decided. Must be on or after the Event end date, and the Event end date must not be null. Paired with Psychiatric leave end code.
Psychiatric leave end code	A code describing how a period of leave ended for a committed mental health patient.	1	char	A	O	Must only be present if Event end type is 'DL'. Paired with Psychiatric leave end date.
Surgical priority	A code defining the severity of a healthcare user's condition at the date surgery was decided.	1	char	A	O	Must be a valid code in the Surgical Priority code table.
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.	2	char	XN	M	Must be a valid code in the Purchaser code table. The Purchaser code end date for the Purchaser code provided must be greater than the event end date. 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.

Field name	Definition	Size	Data type	Format	M/O	Notes
Agency code	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.	4	char	XXXX	M	Must be a valid code in the Agency code table. The organisation contracted to provide the service or treatment.
Weight on admission	The weight in grams at time of admission for infants less than 29 days old.	4	integer	NNNN	O	Mandatory for all events including birth events (Event type 'BT') if age at admission is less than 29 days. Optional for event types 'P', 'BT', 'ID' if Event start date is on or before 1 July 1995 and the number of days between Event start date and Date of birth are less than or equal to 28 days. Optional if more than 28 and less than or equal to 366 days. Optional for all babies between 29 and 365 days old (inclusive) who weigh less than 2500 g. 0001 – 9999 (default is '9000') Records reporting 0001 to 0399 grams will only be accepted on confirmation (Message function 'AZ'). Must contain 4 characters. For infants under 1000 grams, the field must be supplied with a leading zero. No negative numbers.
Accident flag	A flag that denotes whether a person is receiving care or treatment as the result of an accident.	1	char	A	O	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' and the ACC Claim Number field should not be blank.

Field name	Definition	Size	Data type	Format	M/O	Notes
ACC claim number	This is a separate field to record the M46/45, ACC45 or AITC claim number for the event.	12	char	X(12)	O	Should not be blank where the Accident flag = 'Y' Accident records where the ACC Claim number is blank will only be accepted on confirmation (Message function 'A2').
Total hours on mechanical ventilation	The total number of hours on mechanical ventilation while the patient was under the principal care of the ICU team.	5	char	NNNNN	O	Should be provided for procedures that involve mechanical ventilation. Generates warnings if: - not present when a Mechanical Ventilation diagnosis is present (ie, ICD-10 or CD-10 2nd Edition Clinical Code = 1388200 or 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 calculated number of hours from Event start date to Event end date inclusive.

Field name	Definition	Size	Data type	Format	M/O	Notes
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.	5	char	NNNNN	O	Should be provided for procedures that involve CPAP. Generates warning if baby is: - more than 364 days old at Event end date, or - between 28 and 364 days old and Weight on admission is more than 2500 g at Event end date. Generates warning if: - more than 100, or - more than calculated number of hours from Event start date to Event end date inclusive. Generates warning if present and a CPAP diagnosis is not present. A CPAP diagnosis is: - an ICD-10-AM or ICD-10-AM 2nd 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'). Generates warning if not present when a CPAP diagnosis (as defined above) is present, unless: - Total hours on mechanical ventilation is present, or - age at Event end date is more than 364 days, or - age is between 28 days and 364 days and Weight on admission is more than 2500 g. Generates warning if present and Health specialty code not in the P30 or P40 ranges.
PMS unique identifier	A unique local PMS identifier for a particular health event.	14	varchar	X(14)	M	Used to identify a database level link to a health event within the provider's system, independent of any business key. This field is stored and included in all acknowledgement and notification files.
File control reference number	Batch number.	14	char	N(14)	O	File number. Must be unique.

Field name	Definition	Size	Data type	Format	M/O	Notes
Client system identifier	An identifier for the corresponding record stored within the health provider's system.	14	varchar	X(14)	O	May be used to store any record level identification that a provider's system may require in addition to the PMS unique identifier.

8.3 Input File Diagnosis (HD) Record

The Diagnosis Record contains clinical information. Between one and 99 HD records may be sent per HE record, to describe the healthcare user's stay in hospital. This is stored in the Diagnosis Procedure table.

Field name	Definition	Size	Data type	Format	M/O	Notes
Record type	Code identifying the type of input record.	2	char	AA	M	'HD' (hospital event diagnosis)
NHI number	The unique identification number assigned to a healthcare user by the National Health Index (NHI) database.	7	char	AAANNNN	M	System-generated 3 alpha plus 4 numeric, the last of which is a check digit. Must be registered on the NHI before use.
Event type code	Code identifying the type of health event.	2	char	AA	M	Must be a valid code in the Event Type code table. Only one birth event (Event type 'BT') is allowed for each NHI number. Babies born before the mother's admission to hospital or transferred from the hospital of birth are recorded as 'IP'. The presence of some fields depends on the Event type code. See Appendix A: Enhanced Event Type/Event Diagnosis Type Table.
Event start date	The admission date on which a healthcare event began.	8	char	CCYYMMDD	M	Must be on or before the date of load and the Event end date. Must be the same as the Date of birth for birth events (Event type 'BT'). Partial dates not allowed.

Field name	Definition	Size	Data type	Format	M/O	Notes
Facility code	A code that uniquely identifies a healthcare facility. 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.	4	char	NNNN	M	The facility that provided the service or treatment. Must be a valid code in the Facility code table.
Event local identifier	Local system-generated number to distinguish two or more events of the same type occurring on the same day at the same facility.	1	char	N	M	Historically, Event local identifier was created on the pre-1993 Paxus national patient management system using '9' for the first event then '8, 7, ..., 1' for other events with the same primary key. This convention must be used when updating historical events. For consistency, use this convention for all events.
Diagnosis number	Sequential number for each clinical code in each event record to assist in unique identification.	2	char	NN	M	
Clinical coding system ID	A code identifying the clinical coding system used for diagnoses and procedures.	2	char	NN	M	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.

Field name	Definition	Size	Data type	Format	M/O	Notes
Diagnosis type	A code that groups clinical codes, or indicates the priority of a diagnosis.	1	char	A	M	Must be a valid code in the Diagnosis Type code table. There must be one and only one type 'A' for each event. Validation rules are held in the Event to Diagnosis Type table. Cardinality and optionality have been added. See Appendix A: Enhanced Event Type/Event Diagnosis Type Table.
Clinical code type	A code denoting which section of the clinical code table the clinical code falls within.	1	char	A	M	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.
Clinical code	A code used to classify the clinical description of a condition.	8	varchar	See Collection method.	M	From 1 July 2004, ICD-10-AM 3rd Edition clinical codes should be supplied. Must be a valid code in the Clinical code table. Earlier edition codes, such as ICD-10-AM 2nd Edition, are still acceptable. Must form part of a valid combination of Clinical code, Clinical code type, and Clinical coding system ID. Demographic and administrative data (eg; Sex, Date of birth, Event end type) is checked to ensure it is consistent with the Clinical code, as specified by the editing flags held against each Clinical code on the Clinical Code table.
Diagnosis/procedure description	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.	50	varchar	X(50)	M	Free text enclosed in quotation marks ("").

Field name	Definition	Size	Data type	Format	M/O	Notes
Operation/procedure date	The date on which an operation/procedure was performed.	8	char	CCYYMMDD	O	<i>Required for surgical procedures; optional for non-surgical procedures.</i> Mandatory if diagnosis type is 'O' unless Operation flag in Clinical Code table is set to 'Y'. Must be on or before the date of load, the Event end date, and the Psychiatric leave end date. Must be on or after the Event start date, the Date of birth, the Date of referral, the Date of first specialist consultation, and the Date surgery decided. Only permitted if the diagnosis type is 'O'.
Basis of cancer diagnosis code	A code used to describe the single, most valid basis of diagnosis for a primary malignant tumour, or a secondary tumour if the primary tumour site is unknown or cannot be determined	1	char	N	O	0 – 9 Only used if reporting a cancer diagnosis.
Extent of disease code	A code that describes the stage of development that a registrable tumour has reached at the time of diagnosis.	1	char	N	O	0 – 6 Only used if reporting a cancer diagnosis.
External cause date of occurrence	The date when the accident/injury occurred.	8	char	CCYYMMDD	O	Must be on or before the date of load, the Event end date, and the Psychiatric leave end date. Must be on or after the Date of birth. Only permitted if Diagnosis type is 'E'. Required for external cause of occurrence codes, but optional if Operation flag is set to 'Y'. Partial dates allowed.
Clark's level	A code used to describe extent of invasion of a primary melanoma of the skin.	1	numeric		O	1 – 5 Only used if reporting a cancer diagnosis.

Field name	Definition	Size	Data type	Format	M/O	Notes
Breslow's thickness	A measurement of the thickness of a primary malignant melanoma in millimetres.	5	numeric	NNN,NN	O	Only used if reporting a cancer diagnosis.
Laboratory codezzz	The code representing the laboratory diagnosing and reporting cancer.	4	char	NNNN	O	Only used if reporting a cancer diagnosis.

8.4 Input File Psychiatric Data (HC) Record

The HC record is mandatory for IM events and optional for IP and ID events. If present it must include all mandatory fields. Legal status is stored in the Event Legal Status table.

Note: Many providers do not have a mental health module on their local computer system but do treat mental health inpatients. Those providers recording legal status electronically have the option to supply legal status records with ID or IP events as well as IM events.

Field name	Definition	Size	Data type	Format	M/O	Notes
Record type	Code identifying the type of input record.	2	char	AA	M	'HC' (legal status details)
NHI number	The unique identification number assigned to a healthcare user by the National Health Index (NHI) database.	7	char	AAAAAANN	M	System-generated 3 alpha plus 4 numeric, the last of which is a check digit. Must be registered on the NHI before use.
Event type code	Code identifying the type of health event.	2	char	AA	M	Must be a valid code in the Event Type code table. The presence of some fields depends on the Event type code. See Appendix A: Enhanced Event Type/Event Diagnosis Type Table.
Event start date	The admission date on which a healthcare event began.	8	char	CCYYMMDD	M	Must be on or before the date of lead and the Event end date. Must be the same as the Date of birth for birth events (Event type 'BT'). Partial dates not allowed.

Field name	Definition	Size	Data type	Format	M/O	Notes
Facility code	A code that uniquely identifies a healthcare facility. 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.	4	char	NNNN	M	The facility that provided the service or treatment. Must be a valid code in the Facility code table.
Event local identifier	Local system-generated number to distinguish two or more events of the same type occurring on the same day at the same facility.	1	char	N	M	Historically, Event local identifier was created on the pre-1993 Paxus national patient management system using '9' for the first event then '8, 7, ..., 1' for other events with the same primary key. This convention must be used when updating historical events. For consistency, use this convention for all events.
Legal status date	The date from which a healthcare user's legal status applies.	8	char	CCYYMMDD	M	Partial dates not allowed. At least one mandatory for psychiatric inpatient events (Event type 'IM'). Must be after the Date of birth. Must be on or before the Event end date. May be before the Event start date. Must be on or after the Legal Status Start Date for the legal status code provided. Must be on or before the Legal Status End Date for the legal status code provided.

Field name	Definition	Size	Data type	Format	M/O	Notes
Legal status code	Code describing a healthcare user's legal status 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.	2	char	AA	M	At least one mandatory for psychiatric inpatient events (Event type 'IM'). Left justified, ie, the second character can be a space. Code must be present in the Legal Status code table.

9 Acknowledgement file

9.1 Acknowledgement File Header (AH) Record

Contains a summary of the complete processing history of the file.

Field name	Size	Data type	Format	M/O	Notes
Record type	2	char	AA	M	'AH'
Agency code	4	char	XXXX	M	Copied from equivalent field in input file header
File name of input file				M	
acronym	3	char	AAA	M	Copied from equivalent field in input file header
batch number	5	char	99999	M	Copied from equivalent field in input file header
extension	4	char	XAAA	M	' .ndm' (hex string 2E 6E 64 6D)
Number of records	5	char	99999	M	Number of physical records received. Count includes the header record.
Date sent	8	char	9(8)	M	Date in ISO 8601 format to day level
NZHIS processing environment	4	char	AAAA	M	'PROD' or 'TEST'
File layout version	6	char	A999.9	M	Copied from equivalent field in input file header
Number of transactions processed	5	char	99999	M	The number of logical records processed
Number of transactions deleted	5	char	99999	M	The number of logical transactions successfully deleted from the NMDS
Number of transaction inserted	5	char	99999	M	The number of logical transactions successfully inserted into the NMDS
Number of transactions rejected	5	char	99999	M	The number of logical transactions rejected by the validation process
Date file loaded to NMDS	8	char	9(8)	M	Date in ISO 8601 format to day level

9.2 Acknowledgement File Transaction (AK) Record

Contains the result of the load process for each record in the input file. Refer 4.7.3 *Acknowledgement File*.

Field name	Size	Data type	Format	M/O	Notes
Record type	2	char	AA	M	'AK'
NHI number	7	char	X(7)	M	
Event type code	2	char	XX	M	
Event start date	8	char	9(8)	M	
Facility code	4	char	XXXX	M	

Field name	Size	Data type	Format	M/O	Notes
Event local identifier	1	char	9	M	
File control reference number	14	char	X(14)	M	
PMS unique identifier	14	char	X(14)	O	
Client system identifier	14	char	X(14)	O	
*Error number	8	char	AAA9999A	M	'0' if no error
*Error text	max 70	varchar	X(70)	M	Error message returned by the NMDS
Diagnosis number	2	char	99	O	
Legal status date	8	char	9(8)	O	
Legal status code	2	char	AA	O	

* These two fields are repeated for each error found in an event record.

10 Costweight file

10.1 Costweight Header (WH) Record

The costweight header is the first record in each costweight file and contains the file information.

Field name	Size	Data type	Format	M/O	Notes
Record type	2	char	AA	M	'WH'
Agency code	4	char	XXXX	M	
Input file name				M	
acronym	3	char	AAA	M	Assigned by NZHIS
batch number	5	char	99999	M	
extension	4	char	XAAA	M	'.ndm'
Number of records	5	char	99999	M	Count includes the header record
Date sent	8	char	9(8)	M	Date in ISO 8601 format to day level
NZHIS processing environment	4	char	AAAA	M	'PROD' or 'TEST'

10.2 Costweight Transaction (WT) Record

The costweight file is sent back with the acknowledgement file for each file loaded.

Field name	Size	Data type	Format	M/O	Notes
Record type	2	char	AA	M	'WT'
PMS unique identifier	14	char	X(14)	M	Copied from health event record
Client system identifier	14	char	X(14)	M	Copied from health event record
NZHIS transaction key				M	
NHI number	7	char	AAA9999	M	Copied from health event record
Facility code	4	char	X(4)	M	Copied from health event record
Event local identifier	1	char	9	M	Copied from health event record
Event type code	2	char	AA	M	Copied from health event record
Principal health service purchaser	2	char	XX	M	Copied from health event record
Purchase unit	10	char	X(10)	O	This field will be set to null if the discharge date does not fall within a year for which a costweight algorithm exists
Health specialty code	3	char	XXX	M	Copied from the health event record
DRG grouper type	2	char	99	M	Identifies the clinical version of the DRG calculation used
Release number	3	char	9.9	M	Constant – identifies the software release used to calculate the DRG
Event start date	8	char	9(8)	M	Date in ISO 8601 format to day level. Copied from health event record.

Field name	Size	Data type	Format	M/O	Notes
Length of stay	5	char	99999	M	Calculated by NZHIS from the admission, discharge and leave dates provided in the health event record
DRG code	4	char	9999	M	DRG value for this health event. Left-aligned, zero-padded.
WIES modified DRG code	4	char	9999	M	DRG value (as reported in DRG code) modified by the current costweight calculation. Left-aligned, zero-padded.
Costweight version	2	char	99	M	
CCL	1	char	9	M	Complication/co-morbidity level, as output from the grouper software
Total hours on mechanical ventilation	5	char	9(5)	M	Copied from health event record
WIES	14	char	9(9)V9999	M	Costweight value for the health event
Unadjusted costweight	14	char	9(9)V9999	M	Costweight as calculated by the grouper software

11 Error file

An error file is generated only if the file fails the pre-processing checks. If generated, it is sent instead of the Acknowledgement File. It consists of one header record and a file failure record for each of the records in the input file that have failed the pre-processing checks.

11.1 Error File Header Record

Contains details of the input file and pre-processing.

Field name	Size	Data type	Format	M/O	Notes
Record type	2	char	AA	M	'FH'
Agency code	4	char	XXXX	M	Copied from equivalent field in input file header or blanks
File name of input file				M	
acronym	3	char	AAA	M	
batch number	5	char	99999	M	
extension	4	char	XAAA	M	'.ndm' (hex string 2E 6E 64 6D)
Number of records	5	char	99999	M	Count of physical records received. Includes the header record.
Date sent	8	char	9(8)	M	Date in ISO 8601 format to day level
NZHIS processing environment	4	char	AAAA	M	'PROD' or 'TEST'

11.2 File Failure Record

Contains the error for each failed record in the input file. Errors are listed on the NZHIS web site at <http://www.nzhis.govt.nz/documentation/error/NMDSerror.html>.

Field name	Size	Data type	Format	M/O	Notes
Record type	2	char	AA	M	'FF'
Error number	8	char	AAA9999A	M	
Error text	variable max 70	char	X(70)	M	Error message returned by the NMDS

12 Error messages

The table below describes errors that can be reported from the file loading at NZHIS. The following information is given for each code:

12.1 Fields

Field	Definition
Error number	<p>This number consists of three parts:</p> <ul style="list-style-type: none"> Application_code: A three-letter code assigned by NZHIS to identify each software application (eg, MHS = mental health, NMS = NMDS). For the standard error message that applies to more than one software application, the application code is NHS (= NZHIS). Error_ID: This is a unique number (eg, 1003). Error_type: Severity of message (E = error, W = warning).
Error type description	A detailed description of the error and suggestions for why it may have arisen.
Error message	This is the message that is sent back to providers. It may contain substitution parameters (prefixed with '%') which the program fills in with the particular value (eg, the value '%2' is not a valid value for the field '%1'). Where the error message is listed as 'to be assigned', this error number is not currently used.

12.2 List of NMDS Errors

Field name	Error type description	Notes
NZS1001 E	The NMDS looks at the record type to determine the number of fields (commas) to expect in the record. Where these do not match, the record is rejected.	Wrong number of fields: expected %1, found %2
NZS1002 E	A null value or blank has been reported for a field where it is compulsory to report a value.	%1 is a mandatory field
NZS1003 E	The value reported for this field is not included in the NMDS code table and is therefore not valid.	contains an invalid value – %2
NZS1004 E	The value reported for this field is not in the correct format. Refer to the appropriate Data Dictionary for the correct format.	%1 should be in format %3, entered as %2
NZS1005 E	The date in this field is not the correct format. It needs to be ccyyymmdd.	Invalid date in field %1
NZS1006 E	The date in this field is in the future.	Field %1 cannot be a future date (%2)
NZS1007 E	The date in this field is in the past.	Field %1 cannot have a date in the past
NZS1008 E	The value reported in this field is outside the range of values that are valid.	%2 is outside the valid range for %1

Field name	Error type description	Notes
NZS1009 E	This error is only valid for MHINC and NBSD records where a hospital is sending additional diagnosis information for a record that has already been sent in. The error indicates that the first health event (parent record) for this patient could not be found in the database. If the parent record should already be in the database, the most likely problem is an error somewhere in the five business key fields.	No parent record (%1) can be found
NZS1010 E	The record type that has been reported is not HD, HC, HE or HR. These are the only valid record type codes.	This value (%1) is not a valid record type
NZS1011 E	There is something wrong with the header record for this batch. Every batch must have a header record as the first record in the batch.	%1 is not a valid header record (HR)
NZS1012 E	The header record includes the total number of records in this file. However, when the pre-processor checked the file the total found did not match the total reported in the header.	Wrong number of fields: expected %1 found %2
NZS1013 E	The header record includes the file name of the file. However, this does not match the name of the file which arrived. This is a check that the file has not been renamed, which might affect the order of processing.	HR file name and file sent did not match
NZS1014 E	The file had more than one header record. The NMDS is expecting only one header record for each file.	Only one header record is allowed
NZS1015 E	The code in the message function field (also called transaction type field in MHINC and NBSD) is incorrect. The valid values are A1 (Add), A2 (Add ignoring warnings) and D1 (Delete).	This value '%1' is not a valid transaction type
NZS1016 E	This is only valid for mental health (MHINC) and Breast Cancer Screening (NBSD) records. A delete record transaction was received for a health event that also has one or more diagnosis records. These must be deleted first before the health event can be deleted.	Cannot delete parent record as dependent records exist
NZS1017 E	There is a field in the header record that reports if this file is a TEST file or a PROD file. This error indicates that a test file has been sent to the production environment, or a production file to the test environment, or the header record does not include this field.	Incorrect processing environment, file intended for %1
NZS1018 E	This is only valid for mental health (MHINC) and Breast Cancer Screening (NBSD) records. A pair of records has been received for the same patient – the first was to delete the health event record and the second was to update the diagnosis information.	Cannot insert/update record (%1) after attempting to delete parent (%2)
NZS1019 E	The file sent in has no data records in it – just a header record.	A file with no data records after the header is invalid
NZS1020 E	The code used in this field is no longer valid – it has been retired. Suggest you refer to the Data Dictionary for valid codes. For example, this error will be generated if a record includes a 1991 domicile code that was replaced in the 1996 rewrite.	%2 is no longer valid for %1 at date %3
NZS1021 E	Each agency sending data to the NMDS has an abbreviation that is reported as part of the header record. There is also an agency code in each record within the batch. This error indicates that the agency code included in the file does not refer to the same organisation as the abbreviation in the header record.	Agency code %3 does not match acronym %1 in header record

Field name	Error type description	Notes
NZS1022 E	Each agency sending data to the NMDS has an abbreviation that is reported as part of the header record. Associated with this abbreviation is an indicator showing whether the agency is actively sending data to NZHIS. In this case the agency referred to in the heading is noted as inactive. Check that the agency abbreviation is correct, then contact the Help Desk and ask them to make this agency active.	The provider with acronym %1 is marked inactive
NZS1023 E	The NMDS was not able to find the record you want to delete. Suggest you check the business key fields, as these have to be exactly the same in both the delete record and the NMDS record.	Record cannot be deleted – key fields not found
NZS1024 E	The NMDS is not expecting this field to have spaces or tabs in it. Refer to the Data Dictionary for the required format.	Field %1 contains tabs or spaces
NZS1025 W	This is a warning that the value entered in this field is outside the range that was expected. Please check that the value is correct. If it is correct, then re-send the record with an A2 in the message function field.	Value in field %1 is outside the normal range
NZS1026 E	The NMDS checks on several date sequences within the patient record. This error indicates that one or more of the dates are out of sequence. Each error message is tailored to reflect the date details involved.	Date in field %1 is before the date %3
NZS1027 E	The NMDS checks on several date sequences within the patient record. This error indicates that one or more of the dates are out of sequence. Each error message is tailored to reflect the date details involved.	Date in field %1 is after the date %3
NZS1028 E	The NMDS checks some pairs of codes to ensure that the record is correct. This error means that one of those checks failed. For example, a diagnosis (disease) code does not require an operation/procedure date.	Value %1 is inconsistent with the value in %3
NZS1029 E	The NMDS checks on sets of values to ensure that the record is correct. This error means that one of these checks failed. An example of this would be if the clinical coding system ID and the clinical code table type and the event clinical code type do not match with the diagnosis code.	Values %2 are not a valid combination for %1
NZS1030 E	Check the record type field – this is not a valid code.	Line %1: This value %2 is not a valid record type
NZS1031 E	The NMDS checks the number of fields that it expects to get for each record type. This error reports there were either too many or too few fields in the record.	Line %1: Wrong number of fields – expected %2, found %3
NZS1032 W	This batch has not been processed because of inconsistencies within the header record.	Line %1: Record ignored because of inconsistent file
NZS1034 E	The NMDS edit is expecting a specific range of values for this field and none of the valid values were found.	Value in field %1 is outside the expected range
NZS1035 E	The NMDS checks that there are no unprintable characters, such tabs or control characters, in any of the free text fields. This error indicates that these were present.	Unprintable characters were found in field %1
NZS1036 E	The NMDS uses the first record in each file to determine the file format. Critical to this is whether the third character in the first record is a comma or a tab. This error indicates that it was neither a comma nor a tab, and therefore the file format (version 7, 8 or 9) could not be determined.	Unable to determine file format version

Field name	Error type description	Notes
NMS1045 W	One of the fields in an inter-field check for accident details does not contain the expected values. This check is between the purchaser code and the ACC form number.	%1 not consistent with %3
NMS1046 W	The HMV field is populated in this record but there is no procedure code for hours on mechanical ventilation.	%1 indicates %2 but %3 not present
NZS1048 E	Fields in an inter-field check contain the same value. This check is between the three ethnic code fields on a health event.	Fields '%1' and '%2' cannot contain duplicate values
NMS3006 E	This error message is not currently being used.	
NMS3007 E	This error message is not currently being used.	
NMS3008 E	This error message is not currently being used.	
NMS3009 E	This error message is not currently being used.	
NMS3010 E	This record includes information about a birth event but the event type code is not BT. Either re-submit the record as a BT event or remove the birth-specific details.	Birth detail field %1 is not valid for event type %2
NMS3012 W	This is a warning that the event leave days calculated for this patient are greater than the number of days that the patient stayed in hospital, using discharge date minus admission date. Correct or remove the event leave days field.	Event leave days may not be greater than or equal to length of stay
NMS3013 E	This error message is not currently being used.	
NMS3015 E	This field is mandatory for this type of event but has not been reported in this record.	Field %1 is mandatory for %2 events
NMS3016 E	Weight on admission is mandatory for neonates, but was not reported in this record.	Weight on admission is required for neonates aged 28 days or less
NMS3017 E	This error message is not currently being used.	
NMS3018 E	This error message is not currently being used.	
NMS3019 E	The field 'message function' has an invalid code. Valid codes are A1, A2 and D1.	%1 is not a valid value for message function
NMS3020 E	The NMDS edit/error module checks all three parts of the health event record (HE, HD and HC). If there is a problem with any one of these then the whole event has to be returned. For example, if HE and HC pass but there is a problem with HD, then this error is generated. This error is not returned to hospitals.	Transaction failed
NMS3021 E	This is a HD or HC record but there is no HE record with the same business key fields in it. The NMDS could not load this information without a matching HE record.	HD or HC record without matching HE record
NMS3022 E	The NMDS is expecting a diagnosis code for this type of event, but none was reported. Usually generated when no event diagnosis type 'A' (primary diagnosis) is found.	A diagnosis of type %2 is mandatory for event type %1
NMS3023 E	There are too many principal diagnosis codes for this event type.	Too many diagnoses of type %2
NMS3024 E	The diagnosis code in this record is not valid for this type of event.	Diagnosis %2 is not legal for event type %1
NMS3025 E	There is another event in the NMDS for this patient which occurred at the same time as this one. The other event may be for this HCU or for another that has been merged with this HCU.	Event cannot overlap existing event

Field name	Error type description	Notes
NMS3026 W	Some of the business key fields for this event match with another event in the NMDS. This indicates that a similar event for this patient has already been reported. The other event may be for this HCU or for another that has been merged with this HCU.	Warning: similar event already exists
NMS3027 E	The event type code field indicates that this is a psychiatric event, but the legal status record (HC) has not been supplied.	Psychiatric (IM) event must have a legal status (HC) record
NMS3028 E	The NMDS was expecting a health event record for this patient but could not find one.	No health event (HE) record present in transaction unit
NMS3029 W	It is unusual for anyone in New Zealand to have this diagnosis. Please check that the code has been entered accurately. If it is correct, the event may be re-sent with an action code of A2.	This diagnosis %1 is not normal for NZ
NMS3030 W	It is unusual for anyone in New Zealand who is so young to have this diagnosis. Please check that the code has been entered accurately. If it is correct, the event may be re-sent with an action code of A2.	Diagnosis %1 is not normal for ages below %2
NMS3031 W	It is unusual for anyone in New Zealand who is this old to have this diagnosis. Please check that the code has been entered accurately. If it is correct, the event may be re-sent with an action code of A2.	Diagnosis %1, is not normal for ages above %2
NMS3032 W	It is unusual for someone of this sex to have this diagnosis. Please check that the code has been entered accurately. If it is correct, the event may be re-sent with an action code of A2.	Diagnosis %1 is not normal for sex %2
NMS3033 W	This patient's sex has been reported as unknown. Please report the specific sex.	Patient sex is reported as unknown
NMS3034 W	The Australian Coding Standards do not allow this code to be reported as a principal diagnosis.	%1 is not acceptable as a principal diagnosis
NMS3035 E	The patient has an operating room procedure, but the date on which it happened has not been reported.	Operation date field may not be null for this procedure
NMS3036 W	The diagnosis in this record indicates that there was an accident, but no external cause code has been reported.	No external cause code provided
NMS3037 E	This error message is not currently being used.	
NMS3038 W	The event end type code indicates that the patient died, but there were no diagnosis codes that would have caused death.	No fatal diagnoses provided
NMS3039 E	This error can arise from two sources. Firstly, if there is one HE record for this event, but there are two HD records with the same diagnosis number. Secondly, if there is one HE record and two HC records with the same legal status date and legal status code.	Duplicate – %2 already used
NMS3040 E	This error arises when the pre-processor recognises that the same record has come in twice within the batch file. For example, there were two HE delete records that had the same business key fields, or there were two HE insert records with the same business keys.	Badly formed transaction unit %1
NMS3041 E	The NMDS is expecting the field date psychiatric leave ended to be reported only for patients with an event end type of DL (discharged on leave). This record includes a date in the field 'date psychiatric leave ended' but does not have a DL event end type code.	%1 can only be reported for end-type DL

Field name	Error type description	Notes
NMS3042 W	The NMDS carries out a check between mechanical ventilation hours and mechanical ventilation procedure codes. This warning indicates that there are one or more mechanical ventilation procedure codes reported but the mechanical ventilation hours field is empty. If the hours are not available to report, send the record back with an A2 in the message function field.	Mechanical ventilation procedure code but no hours reported
NMS3043 W	The hours on CPAP or HMV are greater than the total hours spent in hospital.	%1 exceeds the total hours of the Health Event
NMS3044 W	CPAP hours should only be reported for babies aged less than 29 days. This record is for an older patient includes a value in the CPAP field.	%1 only required for perinatal conditions
NMS3045 W	Informal patients cannot be discharged to leave. DL can only be used for committed patients.	Latest Legal Status Code cannot be 'I' when end type = 'DL'
NMS3046 E	An end date check to ensure supplied codes are still valid for use. Generation of this error means that the key date provided is after the end date in the reference table for the code supplied in the collection file. An example of this is where a Purchaser code or an Admission Type code has been used on an event where the event end date is after the end date for the code provided.	%1 %2 is retired from use
NMS3047 E	A start date check to ensure supplied codes are valid for use. Generation of this error means that the key date provided is prior to the commencement date of the code supplied. An example of this is where a Legal Status code has been used on an event where the supplied Legal Status date is prior to the start date for the code provided.	%1%2 is not yet active for use

Appendix A: 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
BT	Birth event	A	Principal diagnosis	1	M
BT	Birth event	B	Other relevant diagnosis	N	O
BT	Birth event	E	E-code (External cause of injury)	N	O
BT	Birth event	O	Operation / Procedure	N	O
ID	Intended day case	A	Principal diagnosis	1	M
ID	Intended day case	B	Other relevant diagnosis	N	O
ID	Intended day case	E	E-code (External cause of injury)	N	O
ID	Intended day case	O	Operation / Procedure	N	O
ID	Intended day case	M	Morphology	N	O
IM	Psychiatric inpatient event	A	Principal diagnosis	1	M
IM	Psychiatric inpatient event	B	Other relevant diagnosis	N	O
IM	Psychiatric inpatient event	E	E-code (External cause of injury)	N	O
IM	Psychiatric inpatient event	O	Operation / Procedure	N	O
IM	Psychiatric inpatient event	P	Mental health provisional diagnosis	N	O
IM	Psychiatric inpatient event	M	Morphology	N	O
IP	Non-psychiatric inpatient event	A	Principal diagnosis	1	M
IP	Non-psychiatric inpatient event	B	Other relevant diagnosis	N	O
IP	Non-psychiatric inpatient event	E	E-code (External cause of injury)	N	O
IP	Non-psychiatric inpatient event	O	Operation / Procedure	N	O
IP	Non-psychiatric inpatient event	M	Morphology	N	O

Appendix B: 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.
