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## National Non-admitted Patients Collection (NNPAC)

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### File Specification for File Version V04.0

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## **1. Front Matter**

### **1.1. Reproduction of material**

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## 2. Introduction

### 2.1. Purpose

This Ministry of Health File Specification describes the file format used to send information to the Ministry for inclusion in the National Non-admitted Patient Collection (NNPAC). This includes the file layout and, to a lesser extent, the business rules used for validating the data items within the file.

### 2.2. 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.

### 2.3. Related Documents

This document should be read in conjunction with:

- NNPAC Data Dictionary
- NNPAC Error Messages

### 2.4. National Health Information Principles

The guiding principles for national health information are the need to:

- Protect patient confidentiality and privacy
- 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
- Validate data at source.
- Maintain standard data definitions, classifications and coding systems
- Store national health data that includes only that data which is used, valued and validated at the local level
- Provide connectivity between health information systems to promote communication and integrity

### 2.5. Importance of Accurate Information

Accurate information is vital to both the provision of services and the efficient operation of the health and disability support sector.

In 1996, the Ministry of Health updated its strategic framework with Health Information Strategy for the Year 2000. Since then the world of Information Technology has leapt ahead with the exponential growth of the World Wide Web, networked organisations and universal acceptance of electronic communication.

The Information Management and Technology Plan (renamed WAVE -Working to Add Value to E-information) for 2001, provides the framework for the development and maintenance of health information to meet national requirements.

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The plan aims to ensure that an accurate, timely and consistent set of health data is available nationally, while protecting data confidentiality and avoiding undue compliance and collection costs for the sector.

## **2.6. 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.

## **2.7. 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.

## **2.8. Authority for Collection of Health Information**

The Ministry of Health may collect health information where this is necessary to carry to lawful purposes connected with its functions and activities. These purposes, functions and activities may be set out in legislation, such as the Health Act 1956, or may be derived from lawful instructions from the Minister. The collection, storage and use of health information is also governed by the Privacy Act 1993 and the Health Information Privacy Code 1994.

## **2.9. Changes from Previous Versions of the Specification**

### **2.9.1 Changes to the specification from document version 3.0 to 4.0:**

- New file version 'V04.0' implemented for input file
- Only the current file version (4.0) and the version before (3.0) will be accepted from 01 July 2011.
- Removal of input field datetime of event end
- Error message text field size increased from 70 characters to 256 characters (varchar)
- Revisions to error messages text

### **2.9.2 Changes to the specification from document version 2.2 to 3.0:**

- New file version 'V03.0' implemented for input file
- Removal of file version number from the file name of the load file, the acknowledgement file and the error file
- Amendment to NNPAC purchase units to retire old ones and add new ones.
- Event type field is now mandatory
- New input fields – datetime of presentation, datetime of service, datetime of first contact, datetime of event end, datetime of departure, triage level, event end type, NMDS unique identifier
- Removal of input fields date of service, time of service and event end date. These are now datetime fields – see point above.
- Addition of codes for community referred event types
- Reformatting of error message text
- Addition of a new section that provides guidelines for coding of fields.

### **2.9.3 Changes to the specification from document version 2.1 to 2.2:**

The Volume field in the Event Record has incorrectly been described as a data type of Integer. The system has always allowed a data type of Number in the extract file for Volume. This version corrects the documentation.

The input file version number remains at V02.0.

### **2.9.4 Changes to the specification from document version 2.0 to 2.1:**

These apply to all files sent on or after July 1, 2009.

Additional purchase units are introduced and changes are made to the mandatory status of some existing purchase unit codes required for submission to NNPAC.

The input file version number remains at V02.0.

### **2.9.5 Changes to the specification from document version 1.2 to 2.0:**

These apply to all files sent on or after July 1, 2008.

A summary of the processing / editing changes is:

#### File naming

- To include version (see 7.1 Overview)

#### Record layouts

- Header to include date sent and file version (see 7 Extract File Layouts Header Record)
- Event to include optional event end date for ED records (see 7 Extract File Layouts Event Record)

#### Duplicate input records

- If multiple events with the same id are submitted in a batch, they are all rejected (see 11.5 Duplicate events Validation)

#### Load processing and editing

- See Business Rules, section 11.6.

### **2.9.6 Changes to the specification from document version 1.1 to v1.2:**

The change is:

Start and End date validation introduced for Purchase Unit, Health Specialty and Purchaser Codes based on Date of Service.

### **3. Overview of the NNPAC National Collection**

#### **3.1. Scope**

The NNPAC collection will store data about non-admitted secondary care events, such as outpatient and emergency department visits. Admitted events are held in the NMDS collection. Non-attendances are also in scope and inclusion is mandatory for clinics run by doctors. A non-attendance is where the appointment was not cancelled but the patient either never arrived or left before being seen by the doctor.

A later stage NNPAC will include some diagnostic and procedure details. This document will allude to those but does not define them in detail.

#### **3.2. Start Date**

July 1, 2006

#### **3.3. Guide for Use**

Any historical data to be included in the system will have to be provided in the format specified in this document.

#### **3.4. Collection Methods**

The data will be extracted by DHBs and other providers and transferred using FTP, in the format defined by this document.

#### **3.5. Frequency of Updates**

The provider will send data at least once per month.

Events will be sent within 20 days of the end of the month that they occurred in. As one provider may have multiple source systems, multiple files can be accepted at one time. Each source system will have a unique identifier.

#### **3.6. Security of Updates**

The data in the Ministry of Health data warehouse (including NNPAC) is protected with database passwords, Business Object passwords and Virtual Private Database rules and is only available through the secure Health Intranet.

#### **3.7. Privacy Issues**

All NHI numbers in the NNPAC are encrypted and no names or addresses recorded.

The providers have a requirement to have access to the unencrypted NHI for all persons living in their area or treated at their facilities.

#### **3.8. National Reports and Publications**

NNPAC data is available on request from [inquiries@moh.govt.nz](mailto:inquiries@moh.govt.nz).

For Business Objects access to the NAP warehouse please go to <http://busobj.moh.govt.nz/wijsp/>.

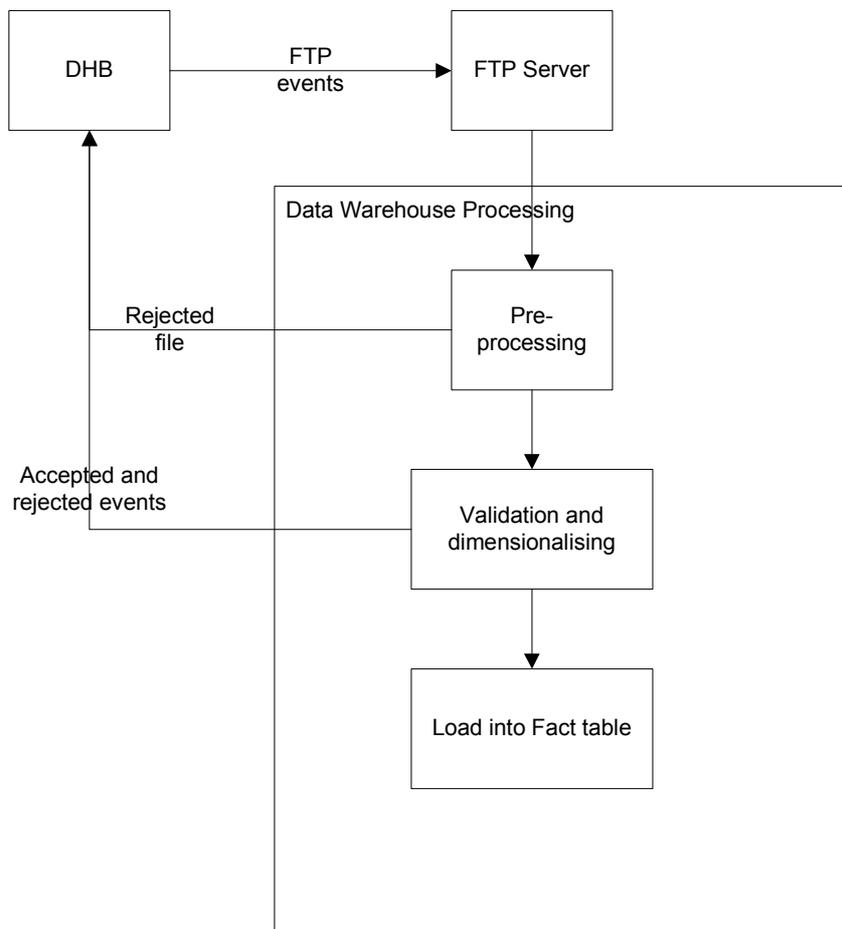
#### **3.9. Data Provision**

Access is restricted to Ministry of Health and DHB and SSO representatives who apply for access. There is no requirement for access by PHOs. SSO representatives

need to demonstrate an agency relationship with a DHB to be able to access that DHB's information. All data is available to any user of the system.

## 4. Batch Processing

### 4.1. Batch Process Overview



### 4.2. Batch Process Details

1. The provider produces a file from their extract system(s) and sends that by FTP to the Ministry FTP server. Zipped files will transmit faster.
2. Ministry of Health Operations copy the file to the data warehouse and start the load process.
3. The pre-process checks the number of records in the file. A header record contains the number of records in the file including the header. It also has an extract system identifier and batch number. Providers must submit files in sequential order for each extract system. If the file fails this check it is rejected and no further processing takes place.
4. If a record has the same identification as another event in a batch, then all events with that key are rejected. This includes DELETE entries.
5. Valid files then proceed to record validation. See the file layout for validation details. As accepted data is loaded, the process dimensionalises the data. This means looking up the key for dimensions such as Health Care User, Provider Type, and Purchase Unit etc.

6. Each record is written to a return file and marked as accepted or rejected. See the return file definition for details. Rejected records are also written to an error file for processing by the provider.
7. Accepted records are applied to the database. If the record is a delete type, then the record is physically deleted from the database. Otherwise, if the record has the same key as an existing record, it is updated else it is added. Records are processed in the order that they are received. The key is the client system identifier plus the pms unique identifier.

## 5. Key Relationships

### 5.1. Overview

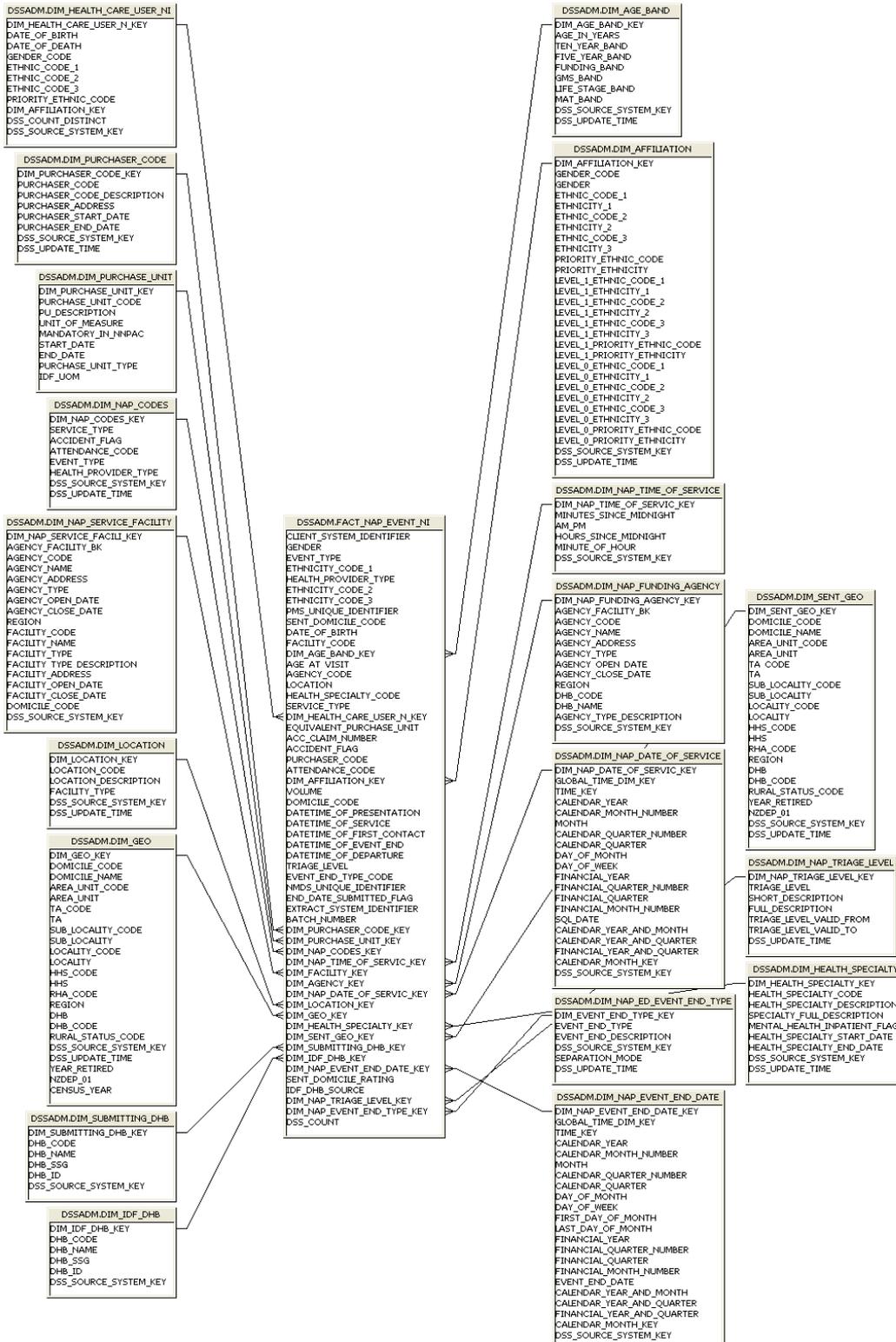
There is one fact table containing one row for each non-admitted patient event.

There are sixteen dimension tables used to analyse the facts.

The dim\_nap\_codes table holds codes with small cardinalities as a matrix of all possible combinations. This is done to reduce the number of dimensions.

## 6. NNPAC National Collection Data Model

### 6.1. Data Model



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## 7. Extract File Requirements

### 7.1. Overview

#### 7.1.1 File Naming

Each input file will be named as: NNPAC\_extract system id\_batch number  
eg NNPAC\_abcdef\_34

#### 7.1.2 Identification

The extract system id is the unique id for each extract system as registered with the Ministry of Health by the provider. To register an extract system id contact Data Management Services by e-mailing operations@moh.govt.nz. A provider may have more than one extract system. An extract system is defined as the system that produces the extract file.

The client system id is the unique id for each client system as registered with the Ministry of Health by the provider. A provider may have more than one client system. A client system is defined as the system that created the event record and its unique identifier. A client system will be registered at the Ministry with a matching extract system. The load process will validate that the client system identifier and extract system identifier combination in the load file is registered with the Ministry as a valid combination.

The source system may be the same as the client system or different, as in the case where the data is extracted from a data warehouse rather than a PMS.

The batch number is the sequential number for the file starting from 1. No gaps in the sequence are allowed as the files need to be processed strictly in order.

The key for events is extract system identifier, client system identifier, and PMS unique identifier.

Providers are responsible for supplying the PMS unique identifier consistently – if they do not then new records may be added in error. The same value for a PMS unique identifier can be supplied from multiple systems as long as the combination of extract system identifier, client system id and PMS unique identifier is unique.

#### 7.1.3 Record Types and Layouts

- There are two record layouts – Header and Event.
- There is one header record per file.
- There is any number of event records.
- Headers have a record type of 'HEADER'.
- Adds or updates have a record type of 'EVENT'.
- For an update, the whole record must be reported each time, even if only one field has changed.
- Deletes have a record type of 'DELETE'. They are the same format as an EVENT record.
- If a non-delete record has the same key as an existing record, the existing record is updated else a new record is added.

- At a later stage diagnosis/procedure records can also be submitted in a separate record type but using the same key as the event. This is not defined here.

## 8. Extract File Layouts

### 8.1. Overview

There are two record types – headers and events. All fields are bar '|' delimited. Bars must not appear in any field. Text fields should not be in quotes. Commas are allowed in text fields but not carriage returns or other formatting. No leading or trailing spaces are permitted unless otherwise stated. All codes are in upper case unless otherwise stated.

#### 8.1.1 Header Record

Field	Type	Format	Reqd. <sup>1</sup>	Notes
record type	char 6	A (6)	M	'HEADER'
extract system identifier	char 10	A (10)	M	Validated against the extract_system table. New extract system identifiers need to be registered with the Ministry of Health.
number of records	integer		M	The number of records, including the header, in the file. eg 23456
batch number	integer		M	The sequential number of the batch. eg 43
date sent	date 8	CCYYMMDD	M	Must be a valid date. Must be on or before the current date.
file version	char 5	ANN.N	M	'V04.0' if the 'Date Sent' is on or after 1 July 2011.

#### 8.1.2 Event Record

##### General rules for datetime fields:

Must be a valid date & time ie. Date must be a valid date in the past or today. The 24 hour clock is used. HH must between 00 and 23 and MM must be between 00 and 59. Leading zeroes are required. No separator is allowed between date or time components.

Eg '201002241030' is a valid date, '2010/02/24 10:30' is not valid

There are also cross validation rules for the datetime fields for ED events. Refer to 12.6 Checks Between Related fields.

<sup>1</sup> Required – M = Mandatory, C = Conditional, O = Optional

	Type	Format	Reqd. <sup>2</sup>	Notes
record type	char 6	A (6)	M	'EVENT' for an add or update.  'DELETE' for a delete. Delete records may contain only key fields (client system identifier, and PMS unique identifier). No mandatory field checking will be done for other fields in DELETE records with the exception of datetime of service. Currently datetime of service must contain a valid date and time. It can be any datetime, it does not have to match the record being deleted. This will be corrected in a future release.
event type	char 3	AAA	M	OP (outpatient), ED (emergency department), CR (community referred diagnostic)  The Community Referred Diagnostic Event should only be used when the diagnostic is independent of any FSA, follow up or treatment procedure and has been ordered by the GP. Refer to 13.4 Community Referred Diagnostic Event.  This field has been made mandatory for all events with Date of Service on or after 1 July 2010
health practitioner type	char 3	AAA	M	M (doctor), N (nurse), O (other)
client system identifier	char 10	A (10)	M	Validated against the external system table. New client system identifiers need to be registered with the Ministry of Health and must be associated with an extract system identifier.
pms unique identifier	varchar 14	X (14)	M	The identifier as used in the client system for this event. Leading and trailing blanks will be trimmed off in the load process.
NHI	char 7	AAANNNN	M	Must be registered on NHI at time of file transmission.

<sup>2</sup> Required – M = Mandatory, C = Conditional, O = Optional

facility code	char 4	XXXX	C	<p>Must be a valid facility code. This is the code of the facility where the event took place. Mandatory if location type is Hospital Facility (i.e. 1, 2 or 3) but should be entered where available for other location types.</p> <p>Refer to 13.2 Events that occur outside a hospital</p>
agency code	char 4	XXXX	M	<p>Must be a valid agency code. This is the code of the agency paying for the service. For example, if Otago DHB contracts out to a private organisation Dunstan Charitable Trust, the agency is Otago DHB and Dunstan Charitable Trust must be submitted as the facility.</p>
location type	Integer 2	NN	M	<p>1 (Public Hospital), 2 (Private Hospital), 3 (Psychiatric Hospital), 4 (Other Institution), 5 (Private Residence), 6 (Other), 10 (Residential Care), 11 (Marae), 12 (Primary Care), 13 (Other Community)</p> <p>Refer to 13.2 Events that occur outside a hospital</p>
health specialty code	char 3	ANN	M	<p>As for NMDS. Must be a valid health specialty code and must be active for the Date of Service</p>
service type	char 8	X (8)	M	<p>PREADM (pre-admission), FIRST (first contact for client with condition at specialty), FOLLOWUP, CRD (community referred diagnostic)</p>

equivalent purchase unit code	char 8	X (8)	M	<p>Is the purchase unit that would have been allocated if provided by a DHB as defined in the NSF data dictionary, regardless of funding. Must be a valid purchase unit code and must be active for the Date of Service.</p> <p>For DNA (Did Not Attend) or DNW (Did Not Wait), this is the Purchase Unit that would have been allocated had they attended or waited. Note there is a series of Nationwide Service Framework Data Dictionary Purchase Unit codes expressly for use in NNPAC for pre-admissions and subsequently admitted ED events.</p>
acc claim number	char 12	X(12)	O	Valid only if accident flag = 'Y'
accident flag	char 1	A	M	'Y' or 'N' or 'U' (unknown)
purchaser code	char 2	XX	M	As for NMDS. Must be a valid Principal health purchaser code and must be active for the Date of Service.
attendance code	char 3	AAA	M	ATT (attended), DNA (did not attend), DNW (did not wait)
volume	number	99999.999 (floating-point)	M	Zero if attendance code is DNA or DNW or client-based or programmed events, otherwise 1 or more if attendance code is ATT. This is not the number of events but the number of purchase units.
domicile code	char 4	AAAA	O	Must includes leading zeroes. This is used for deriving the patient's DHB and as a data quality test to compare with the NHI domicile code.
datetime of presentation	datetime	CCYYMMDD HHMM	C	<p>The date and time a patient presents/or is presented physically to the ED department; either to the triage nurse or clerical staff, whichever comes first.</p> <p>Mandatory for ED events with Datetime of service on or after 1 July 2010, null for all other events</p>

datetime of service	datetime	CCYYMMDD HHMM	M	<p>The date of service will be used to look up the NHI history tables to get the gender, ethnicity and domicile code of the patient at the time of the event.</p> <p>For ED events this is the date and time that a triage nurse/suitable ED medical professional <b>starts</b> the process of categorising the triage level of the incoming patient (i.e. 1 – 5).</p> <p>For outpatient visits the time of service should be the actual service start time if available. If not, then the booked appointment time may be used or a default time of '0000' may be sent.</p> <p>Refer to further notes in 13.3 ED Timestamps</p>
datetime of first contact	datetime	CCYYMMDD HHMM	C	<p>The date and time that the triaged patient's treatment starts by a suitable ED medical professional (could be the same time as the datetime of service if treatment is required immediately i.e. triage level 1).</p> <p>Mandatory for ED events with Datetime of service on or after 1 July 2010 and attendance code 'ATT', null for all other events</p>
datetime of departure	datetime	CCYYMMDD HHMM	C	<p>The date and time of the physical departure of the patient from ED to an in-patient ward, or the time at which a patient begins a period of formal observation (whether in ED observation beds, an observation unit, or similar), or the time at which a patient being discharged from the ED to the community physically leaves the ED.</p> <p>Mandatory for ED events with Datetime of service on or after 1 July 2010 and attendance code 'ATT', null for all other events</p> <p>Refer to further notes in 13.3 ED Timestamps</p>

triage level	integer	N	C	From the scale of 1 – 5 Mandatory for ED events with Datetime of service on or after 1 July 2010 and attendance code 'ATT', null for all other events
event end type code	char	AA	C	Mandatory for ED events with Datetime of service on or after 1 July 2010 Must be a valid code in the Event End Type code table.
NMDS PMS unique identifier	varchar 14	X (14)	C	NMDS PMS event identifier where patient is discharged to another service in the same facility. Mandatory for ED events events with Datetime of service on or after 1 July 2010 and attendance code = 'ATT' and equivalent purchase unit code is like ED%A

## 9. Acknowledgement File

### 9.1. Overview

A file is returned for each input file that passes pre-processing. It contains one record for each input record, marked as accepted or in error. The file is sent to the DHB via FTP with an accompanying email, both sent automatically.

The files are named NNPAC\_ACK\_extract system id\_batch number.

### 9.2. Acknowledgement Record

Field	Type	Format	Notes
client system identifier	char 10	A (10)	Identifier of the source client system.
pms unique identifier	varchar 14	X (14)	The identifier as used in the client system for this event.
extract system identifier	char 10	A (10)	The identifier of the system the data was extracted from.
Batch Number	integer		The sequential number of the batch. eg 43
action taken	char 8	A (8)	'INSERTED', 'UPDATED', 'DELETED', 'ERROR', 'WARNING'

## 10. Error File

### 10.1. Overview

As well as being in the acknowledgement file, rejected records are also in a separate error file. The error file also contains the cautions.

The files are named NNPAC\_ERROR\_extract system id\_batch number.

If there are multiple errors for a record there will be multiple entries in the file, one for each error or warning.

### 10.2. Error Record

Field	Type	Format	Notes
client system identifier	char 10	A (10)	Identifier of the source client system.
pms unique identifier	varchar 14	X (14)	The identifier as used in the client system for this event.
NHI	char 7	AAANNNN	Unencrypted
extract system identifier	char 10	A (10)	The identifier of the extract system. The first three characters will be the DHB acronym as used in the NMDS header record.
Batch Number	integer		The sequential number of the batch. eg 43
error number	char 8	AAANNNNA	This is the standard error number format for MOH systems.
error text	varchar 256	X (256)	Existing error messages (eg for NMDS) will be reused where appropriate.

### 10.3. Error Messages

#### 10.3.1 Error Messages – Pre-load batch validations

The following error messages may be produced when the input files are loaded into NNPAC. They are emailed to the operators' email and the DHB (if email address found).

Error Message	Error Description
NNPAC load failed. Error: Missing header record or file version in file: %1. This file has not been processed.	Header record is missing in file (%1)
NNPAC load failed. Error: Missing header record or file version in file: %1. This file has not been processed.	File version is missing in the header record
NNPAC load failed. Error: Invalid file version in file: %1. This file has not been processed.	File version not previous version or current version
NNPAC load failed. Error: Missing Extract Identifier in file: %1. This file has not been processed.	No extract identifier given in header record

### 10.3.2 Error Messages – Data warehouse batch validations

The following error messages may be produced by validation that occurs when moving data from the IDS to the data warehouse. These error messages are sent by email to the operator/DHB, prefixed with the following, for all the error messages: 'Batch load failed for %1 (DHB). Extract\_system\_identifier: %2. Batch number: %3 (batch number). Error message: (as detailed in the table below).

Error Message	Error Description
Missing extract system identifier	Extract System Identifier has not been supplied
Invalid extract system identifier %1	The extract system identifier (%1) supplied is not in the dim_external_system
Date Sent is a required field. Missing Date Sent for system: %1, batch number: %2	Date Sent has not been supplied for the system (%1) batch number (%2)
Missing batch number for system %1	Batch number has not been supplied for system (%1)
Missing batch in sequence for system %1 last batch was %2 this batch %3	Where batch number supplied > maximum (batch number) in dim_nap_batch for the extract identifier
Invalid File Version for system %1	Where file_version not previous version or current version for system (%1)
Records found %1 Records expected %2 for system %3 batch %4	Where the count of records in load_nap_event differs from the number_of_records (supplied in the header record)

#### Example error message:

'Batch load failed for Canterbury DHB. Extract\_system\_identifier: CDHB\_DW. Batch number: 45. Error message: Records found 5 Records expected 4 for system CDHB\_DW batch 45'

### 10.3.3 Error Messages - Event record validation

The following error messages may be produced when the event records are validated. The error messages can be in the form of errors (E) or cautions (C). If a record causes an error it will always be rejected. Cautions are used to describe why data is considered invalid. If a record causes a caution, it will be loaded.

The following table is a complete list of NNPAC error messages:

Prefix_code	ID	Error Type	Error Message	Error Description
NAP	5000	E	Could not find Record to delete	No record found to delete with the same key (extract system identifier, client system identifier, PMS unique identifier) as requested.
NAP	5001	E	Record Type invalid: %1	Record type (%1) not in list of valid record types (i.e. HEADER, EVENT, DELETE)
NAP	5002	E	NHI invalid: %1	NHI number (%1) not allocated to a person in the NHI system.
NAP	5003	E	Invalid Accident Flag: %1	Accident flag (%1) not one of the allowed values (i.e. Y, N, U).
NAP	5004	E	Invalid Attendance Code: %1	Attendance code (%1) not one of the allowed values (i.e. ATT, DNA, DNW).
NAP	5005	E	Invalid Event Type: %1	Event type not one of the allowed values.
NAP	5006	E	Invalid Health Practitioner Type: %1	Health practitioner (also known as provider) type (%1) not one of the allowed values (i.e. M, N, O).
NAP	5007	E	Invalid Service Type: %1	Service type (%1) not one of the allowed values (i.e. PREADM, FIRST, CRD, FOLLOWUP).
NAP	5008	E	Invalid Hours in %2: %1	Hours in the field (%2) are greater than 24 or not numeric. (%1 = hours entered)
NAP	5009	E	Invalid Minutes in %2: %1	Minutes in the field (%2) are greater than 60 or not numeric. (%1 = minutes entered)

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Prefix_code	ID	Error Type	Error Message	Error Description
NAP	5010	E	Invalid Facility Code: %1	Facility code (%1) is not in the list of facilities. (See Common Code tables on the Ministry web site <sup>3</sup> ).
NAP	5011	E	Invalid Agency Code: %1	Agency code is not in the list of agencies. (See Common Code tables on the Ministry web site).
NAP	5012	E	The Datetime of Service is after the processing date	The datetime of service is after the processing date.
NAP	5013	E	The Datetime of Service is 20 years before the processing date	The datetime of service is 20 years before the processing date.
NAP	5014	E	Invalid Date in %2: %1	Datetime field (%2) does not contain a valid date (where %1 = actual date entered).
NAP	5015	E	Location Type invalid: %1	The location type code (%1) is not one of the allowed values. (See list of valid codes on page 20).
NAP	5016	E	Equivalent Purchase Unit code invalid: %1	The equivalent purchase unit code (%1) is not one of the allowed values for NNPAC (it may be valid in other datamarts). (See DIM_Purchase_Unit table)
NAP	5017	E	Purchaser Code invalid: %1	Purchaser code (%1) not one of the allowed values. Also known as Principal Health Service Purchaser or Health Purchaser.
NAP	5018	E	Health Specialty Code invalid: %1	Health specialty code (%1) not one of the allowed values. (See Common Code tables on the Ministry web site).
NAP	5019	E	Volume %1 incompatible with Attendance Code: %2	The value (%1) in the volume is not allowed for attendance code. For example, DNA should have a volume of 0.
NAP	5020	E	Invalid Client System Identifier: %1	The client system identifier is not that agreed with MOH.
NAP	5021	E	No PMS Unique Identifier provided	The PMS unique identifier is missing.
NAP	5022	E	ACC Claim must be NULL when Accident Flag	ACC claim must be NULL when accident flag is (%1) (where

<sup>3</sup> For code tables on the Ministry web site go to <http://www.nzhis.govt.nz/moh.nsf/pagesns/47>

Prefix_code	ID	Error Type	Error Message	Error Description
			is %1	%1 = populated value)
NAP	5023	E	Duplicate. All records for this EventID in this extract are rejected.	Duplicate. All records for this EventID in this extract are rejected.
NAP	5028	E	Purchaser Code %1 is invalid for this datetime of service	Purchaser Code (%1) is not yet active for use. Also known as Principal Health Service Purchaser or Health Purchaser
NAP	5029	E	Purchaser Code %1 is retired from use	Purchaser Code (%1) is retired from use.
NAP	5030	E	Health Specialty Code %1 invalid for this datetime of service	Health Specialty Code (%1) is not yet active for use. (See Common Code tables on the Ministry web site).
NAP	5031	E	Health Specialty Code %1 is retired from use	Health Specialty Code (%1) is retired from use.
NAP	5032	E	Purchase Unit Code %1 invalid for this datetime of service	Purchase Unit Code (%1) is not yet active for use.
NAP	5033	E	Purchase Unit Code %1 is retired from use	Purchase Unit Code (%1) is retired from use.
NAP	5034	E	Service Type %1 incompatible with Purchase Unit Code %2	Service Type (%1) is incompatible with Purchase Unit Code (%2).
NAP	5036	E	Volume: %1 is incompatible with Preadmission Purchase Unit %2	Volume (%1) is incompatible with Preadmission Purchase Unit (%2).
NAP	5037	E	Volume: %1 is invalid for Purchase Unit Code %2 (UOM='client').	Volume (%1) is invalid for Purchase Unit Code (%2) when (UOM='client').
NAP	5038	E	No longer used	
NAP	5039	E	No longer used	
NAP	5040	C	Domicile Code %1 is invalid for this Datetime of Service %2	Domicile Code (%1)is not active at the Datetime of Service (%2).
NAP	5041	C	Domicile Code %1 is for an overseas resident	Domicile Code (%1) is for an overseas resident
NAP	5042	C	Domicile Code %1 does not correspond to a valid DHB	Domicile Code (%1) does not correspond to a valid DHB.
NAP	5043	E	Invalid file version %1 for period %2	Invalid file version (%1) submitted for the period reported

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Prefix_code	ID	Error Type	Error Message	Error Description
				(%2).
NAP	5044	E	Date Sent invalid: %1	Date sent (%1) invalid
NAP	5045	E	%1 in the future: %2	(Datetime field %1) (%2) is in the future
NAP	5046	E	%1 is a required field	(Field %1) is a required field
NAP	5047	E	%1 is required for %2	(Field %1) is a required field when the condition (%2) is true
NAP	5048	E	%1 invalid: %2	(%2) is not one of the allowed values for (field %1)
NAP	5049	E	Attendance Code invalid: %1	Attendance code (%1) must be 'ATT'
NAP	5050	E	%1 must be on or before %2	Datetime field (%1) must be less than or equal to datetime field (%2)
NAP	5052	E	%1 must be null for %2 event type	A value has been submitted for (field %1) where null should have been submitted on an event type of (%2)
NAP	5053	E	%1 must be null for Attendance Code %2	A value has been submitted for (field %1) where null should have been submitted on an event with attendance code of (%2)
NAP	5054	E	%1 must be null for Purchase Unit Code %2	A value has been submitted for (field %1) where null should have been submitted on an event with purchase unit code of (%2)
NAP	5055	E	Service Type %1 is invalid for Event Type %2	Service type code (%1) is not allowed for event type (%2)
NAP	5056	E	Event End Type: %1 incompatible with Purchase Unit or Attendance Code	Event end type (%1) is incompatible with purchase unit code or attendance code
NAP	5057	E	%1 %2 invalid for this datetime of service	(The code %1) (eg. Triage Level) containing a value of (%2) is not yet active for use
NAP	5058	E	%1 %2 is retired from use	The code %1 (eg. Triage Level) containing a value of %2 is retired from use

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## 11. Purchase Unit Data Quality Update

### 11.1. Overview

Once per year (1st July) each DHB will provide a file showing the estimated percentage of events that they are providing for each and every purchase unit that is valid for the NNPAC. As some DHBs will be providing partial information about some purchase units, this information will be available on the intranet to allow analysts to use the data correctly

### 11.2. Purchase Unit Data Quality Record

Field	Type	Format	Notes
DHB Code	char 3	AAA	Validated against the MOH DHB code table. Leading zeroes included.
purchase unit code	char 8	X (8)	Must be a valid purchase unit code.
unit of measure	char 256		The Purchase Unit's Unit of Measure.
record year	char 4	CCYY	Must be this year.
percentage provided range	integer		The range of estimated percentage of non-admitted events that will be sent to the data mart that year. eg 1-20, 21-40, 41-60, 61-80, 81-100. Admitted events may exist in NMDS.

## 12. Business Rules

### 12.1. Overview

The validation rules for individual fields are in the extract file layout. Other rules are defined here.

### 12.2. Errors, Warnings and Cautions

Rules can generate errors, warnings or cautions. If a record causes an error it will always be rejected. Cautions are used to describe why data is considered invalid. If a record causes a caution, it will be loaded. If a record causes a warning, it will be rejected. However, if it is re-submitted it will be accepted. The system will record all warnings and check to see if the warning has already been sent to the DHB.

Warnings will be implemented at a later phase.

### 12.3. Purchase unit and specialty cross-validation

The facility will be available to add rules for gender and age cross-validation with health specialty and purchase units, where such rules have been identified. For example, paediatric specialties may have a maximum age. These rules will generate warnings rather than errors.

This will be implemented at a later phase.

### 12.4. Purchase Unit Date Validation

Start and End Dates were introduced for Purchase Unit Codes as at 1 July 2007. Validation is performed during the load process on the Equivalent Purchase Unit Code to ensure it is active for the Date of Service.

### 12.5. Duplicate Events Validation

From 1 July 2008, duplicate events in an extract will all be rejected. Duplicate events are defined all those events, including deletes, with the same:

- Extract System Identifier
- Client System Identifier
- PMS Unique Identifier

### 12.6. Checks Between Related Fields

Some data in an event record is validated against other data in the record or the system. This includes ensuring:

- The **IDF\_UOM** = 'client' and the **Volume** = 0
- The **Purchase Unit Type** = 'P' and the **Volume** = 0
- Service Type 'CRD' is only valid for Event Type 'CR'
- Valid combinations of Purchase Unit Type and Service Type as shown in the table below.

Service Type	Purchase Unit Type					
	F - First	S - Subsequent	P - Preadm	G – General	O – Procedure	C - Community
PREADM	-	-	Valid	-	-	-
FIRST	Valid	-	-	Valid	Valid	Valid
FOLLOWUP	-	Valid	-	Valid	Valid	Valid
CRD	-	-	-	Valid	Valid	Valid

For ED events the datetime stamps must be in chronological order. ie

1. Datetime of presentation  $\leq$  Datetime of service
2. Datetime of presentation  $\leq$  Datetime of service  $\leq$  Datetime of first contact if Datetime of first contact not null
3. Datetime of service  $\leq$  Datetime of first contact  $\leq$  Datetime of departure if Datetime of departure not null

### 12.7. Cautions

Cautions are issued as a record is accepted with possibly the wrong IDF DHB.

## 13. Guidelines for Coding Events

### 13.1. Overview

This section provides additional guidelines for coding fields.

### 13.2. Events that occur outside a hospital

For purchase units that have events that may occur outside the hospital, reporting should be as follows

**Location type** - choose the location that best describes where the event took place. The options are:

- 1 Public hospital
- 2 Private Hospital
- 3 Psychiatric Hospital
- 4 Other Institution
- 5 Private Residence
- 6 Other
- 10 Residential Care
- 11 Marae
- 12 Primary Care
- 13 Other community

**Facility Code** Where a facility code is available in the facility code table then enter it but it must reflect the location of the event. If no facility code is available leave the field blank. If you are using a facility code for the first time in NNPAC or if a code is rejected by the NNPAC load please notify the Identity Data Management Team in Information Delivery and Operations.- National Health Board.

#### Examples

1. For DOM101-Professional nursing services provided in the community which will occur in the patients home use 5 Private Residence and leave facility code blank.
2. For S00008 Minor Operations eg Skin Lesions provided in GP Practice use 12 Primary Care and the facility code of that GP Practice from facility code table (<http://www.moh.govt.nz/moh.nsf/pagesns/442?Open>)

### 13.3. ED Timestamps

#### 13.3.1.1 Datetime of Presentation

The date and time a patient presents/or is presented physically to the ED department; either the triage nurse or clerical staff, whichever comes first.

#### 13.3.1.2 Datetime of Service (Triage)

The date and time that a triage nurse/suitable ED medical professional starts the process of categorising the triage level of the incoming patient (i.e. 1 – 5).

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The appropriate standard of care is for the first contact with staff in the ED to be with a triage nurse ('triage first'), so this datetime ideally should be the same as 'datetime of presentation.' However, it is understood that patients may present to a receptionist first in some departments, or may wait in a triage queue on some occasions. Hence 'datetime of presentation' and 'datetime of triage' are recorded separately. However, DHBs should endeavour to have 'triage first' and to ensure triage is undertaken immediately upon the patient's arrival.

Note the 'datetime of triage' is from the start of triage. It is understood that many EDs record the time the triage nurse 'files' the electronic triage record for the patient and that this is often towards the end of the triage process. DHBs with EDs of this sort should endeavour to have a system which electronically records the start of triage.

### **13.3.1.3 Datetime of First Contact**

The date and time that the triaged patient's treatment starts by a suitable ED medical professional (could be the same time as the above if treatment is required immediately i.e. triage level 1).

### **13.3.1.4 Datetime of Departure from ED**

The date and time of the physical departure of the patient from ED to an in-patient ward, or the time at which a patient begins a period of formal observation (whether in ED observation beds, an observation unit, or similar), or the time at which a patient being discharged from the ED to the community physically leaves the ED.

Admission time is the time at which the patient is physically moved from ED to an inpatient ward, or the time at which a patient begins a period of formal observation, whether in ED observation beds, an observation unit, or similar. The physical move will follow, or be concurrent with, a formal admission protocol, but it is the patient movement that stops the clock, not associated administrative decisions or tasks.

Inpatient wards include short stay units (or units with a similar function). Under certain circumstances, a 'decant' ward designed to deal with surge capacity will qualify as an inpatient ward. Key criteria are that patients should be in beds rather than on trolleys, and be under the care of appropriate clinical staff.

A formal observation area generally has dedicated space, dedicated staffing, and fixed capacity (beds). In relation to transfers to an APU; if there is a clinical intervention and supervision by ED staff over and above triage, then the time from presentation to transfer should be counted in reporting against the ED LOS target. Otherwise, it should be excluded.

Discharge time is the time at which a patient being discharged from the ED to the community physically leaves the ED. If a patient's treatment is finished, and they are waiting in the ED facilities only as a consequence of their personal transport arrangements for pickup, they can be treated as discharged for the purposes of this measure. If the patient goes home then returns to become an inpatient, then the clock stops at the point they leave the ED. If the patient goes home then returns to ED for further care, it is counted as another ED admission.

### 13.4. Community Referred Diagnostic Event

The type of events that should be reported under Community Referred Diagnostic Event include any tests that have purchase units that currently start with 'CS'. See table below.

PURCHASE_UNIT_CODE	PU_DESCRIPTION
CS01001	Community Radiology
CS02001	Community Laboratory (Hospital)
CS02002	Community Laboratory
CS02003	Refugees and Asylum seekers - lab tests
CS02004	Non-Schedule Community Laboratory Tests
CS03001	Hospital Dispensing of Pharmaceuticals
CS04001	Community referred tests - cardiology
CS04002	Community referred tests - neurology
CS04003	Community referred tests - audiology
CS04004	Community referred tests - gastroenterology
CS04005	Community referred tests - endocrinology
CS04007	Community referred tests - urology
CS04008	Community referred tests - respiratory
CS04009	Community referred tests - Pacemaker physiology tests
CS05003	Long Stay Labs and Pharms
CS05004	Mobile Dental X-Ray Service

### 13.5. Deaths

There is no requirement to send NNPAC or NMDS events for patients who are dead on arrival in ED.

However, if a patient arrives in ED and receives treatment then dies, that event must be submitted to NNPAC as an EDA event and to NMDS too. This is the case irrespective of how long they received treatment.