hiso Health Information Standards Organisation
PAEREWA PĀRONGO HAUORA

Oral Health Data Standard

HISO 10059:2020

Published XXXX 2020

New Zealand Government

MINISTRY OF HEALTH
MANATŪ HAUORA

Citation: Ministry of Health. 2020. *HISO 10059:2020 Oral Health Data Standard*. Wellington: Ministry of Health.

Published in XXX 2020 by the Ministry of Health
PO Box 5013, Wellington 6140, New Zealand

ISBN xxx-x-xx-xxxxxx-x (online)
HP XX

Health Information Standards Organisation (HISO) standards are published by the Ministry of Health for the New Zealand health and disability sector.

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This document is available at health.govt.nz

Contents

1 Introduction

The Ministry of Health's Electronic Oral Health Record programme aims to improve the collection, access and reporting of oral health information to better meet the needs of District Health Board (DHB) oral health service providers and the populations they serve. The programme will support improved equity of service access and outcomes, including for Maori and Pacific populations, and support clinical safety. The oral health services DHBs are required to provide are defined in the Tier Two Ministry of Health Oral Health Specifications[1].

1.1 Background

In late 2017, the Ministry of Health observed that inconsistencies in DHB data collection are a barrier to the integration and interoperability of oral health information with other health records and systems. Data inconsistencies increase the costs of information system administration, end-user support and service report development. The implementation of a national standard service codeset for oral health can be incrementally applied to DHB systems and processes to ensure quality and progression towards information consistency and oral health data integration.

1.2 Purpose

This standard defines administrative and clinical data elements and service codes that constitute a minimum dataset for DHB Community Oral Health Services (COHS) and Hospital Dental Services (HDS). The capture and coding of some data elements is currently well established, and all that is required to comply with this standard is amendment of codes or descriptions. Some data elements are new and are proposed as they better recognise the context and setting of DHB service delivery and are likely to enhance future information sharing and interoperability. The implementation of new data elements will be iterative and is dependent on DHBs upgrading their existing oral health information system.

As New Zealand is a member of SNOMED International, the Ministry of Health is planning for transition to the use of SNOMED Clinical Terminology (CT). The majority of DHBs currently use of a set of procedure codes derived from the Australian Schedule of Dental Services and Glossary (ASDSG). The Standard design group has recommended that DHBs progress towards the consistent use of ASDSG and map codes to SNOMED CT where possible. SNOMED CT codes have been incorporated into this standard where it has been practical to do so. SNOMED CT codes for oral health disease diagnosis are likely to be introduced over a three to five-year timeframe.

[1] See **https://nsfl.health.govt.nz/oral-health-services**

1.3 Scope

The Standard sets out the minimum data required to cover administrative, demographic and clinical information. Such information is:

- to be collected, updated and maintained through primary and public health oral health care management systems operated by DHBs to support their Community Oral Health Service (COHS) and Hospital Dental Service (HDS).
- subject to control mechanisms that restrict access to the authorised, pre-approved health care agencies as set out in Schedule 2 of the Health Information Privacy Code 1994. The Privacy Code also restricts the creation and use of unique identifiers such as the National Health Index (NHI) number. Examples of these mechanisms include:
    - audit, security and protective mechanisms
    - an audit trail of individual patient record changes comprising for example, the date/time any discrete piece of information or its components were accessed and/or updated together with identification of both the organisation and individual that made the update/change.

DHBs will work with oral health information system vendors via revised regional and national governance arrangements to determine the priority and sequence of implementation.

The Standard will lead to improvements in the quality of oral health information that will become accessible to consumers/patients in time.

1.4 Legislation and regulations

The following Acts of Parliament and Regulations are relevant to this standard. Readers must consider other Acts and Regulations and any amendments that are relevant to their own organisation when implementing or using this standard.

- Health Act 1956
- Health and Disability Commissioner (Code of Health and Disability Services Consumers' Rights) Regulations 1996
- Health Information Privacy Code 1994
- Health Practitioners Competence Assurance Act 2003
- New Zealand Public Health and Disability Act 2000
- Privacy Act 1993 (as amended)
- Public Records Act 2005
- Retention of Health Information Regulations 1996.

1.5 Data elements

The data elements in the Standard describe patient demographic and service (course of care) information. Each course of care delivered to a patient is represented by at least one or more entries as are necessary to provide a clear record of that course of care. Data element specifications in this standard conform to the requirements of ISO/IEC 11179 Information Technology – Metadata Registries (MDR).[2]

Definition	A statement that expresses the essential nature of the data element and its differentiation from other elements in the data set.		
Source standards	Established data definitions or guidelines pertaining to the data element.		
Data type	Alphabetic (A) Date Date/time Numeric (N) Alphanumeric (X) Boolean SNOMED CT identifier	**Representational class**	Code, free text, value or identifier. For date and time data types, use full date or partial date.
Field size	Maximum number of characters	**Representational layout**	The formatted arrangement of characters in alphanumeric elements, for example: • X(50) for a 50-character alphanumeric string • NNN for a 3-digit number • NNAAAA for a formatted alphanumeric identifier.
Data domain	The valid values or codes that are acceptable for the data element. The following is provided for each data element: Either a code value, as well as a description and an explanation of the code value Or reference to internationally recognised code values (eg, International Standards Organisation – ISO, Department of Internal Affairs – DIA) The valid values or codes contained in this standard are principally New Zealand values, although, in certain cases, international codes are used. All fields including free text fields allow international data to be received and stored.		
Obligation	Indicates if the data element is mandatory, optional or conditional.		
Guide for use	Additional guidance on using the data element.		
Verification rules	Quality control mechanisms that preclude invalid values.		

[2] See https://standards.iso.org/ittf/PubliclyAvailableStandards/index.html

1.6 Related specifications

The standards listed below have been used in the development of this standard. They may provide some further clarity, if required. Compliance with this standard also requires compliance with related supporting HISO standards.

The current HISO Health Practitioner Index standards are listed below. These standards were published in 2008 and while they can provide guidance on Health Practitioner Index (HPI) values referred to in this standard, they are not suitable for any other purpose.

- HISO 10005:2008 Health Practitioner Index (HPI) Data Set

  https://www.health.govt.nz/publication/hiso-100052008-health-practitioner-index-hpi-data-set

- HISO 10006:2008 Health Practitioner Index (HPI) Code Set

  https://www.health.govt.nz/publication/hiso-100062008-health-practitioner-index-hpi-code-set

- HISO 10046 Consumer Health Identity Standard

  https://www.health.govt.nz/publication/hiso-10046-consumer-health-identity-standard

- HISO 10029:2015 Health Information Security Framework

  https://www.health.govt.nz/publication/hiso-100292015-health-information-security-framework

- HISO 10068:2017 Iwi Statistical Standard

  https://www.health.govt.nz/publication/hiso-10068-2017-iwi-statistical-standard

- HISO 10033 SNOMED CT

  HISO has endorsed SNOMED CT as the clinical terminology for use in New Zealand. Accordingly, this standard uses SNOMED CT in various data elements. The SNOMED NZ Edition includes all content from the SNOMED International Edition alongside New Zealand-specific content in the SNOMED NZ Extension.

  https://www.health.govt.nz/publication/hiso-10033-snomed-ct

  The Ministry of Health website provides relevant information regarding SNOMED releases and the link to download the SNOMED NZ Edition.

  https://www.health.govt.nz/nz-health-statistics/classification-and-terminology/new-zealand-snomed-ct-national-release-centre/snomed-ct-subsets-and-maps

  Where a data element in this standard uses SNOMED CT, the display is to show the Agreed SNOMED concept term or synonym to the user and record the correct SNOMED CT identifier. Active SNOMED CT concepts must be selected when determining values for data elements.

  Note: Where a SNOMED code has not been provided in this standard, either a suitable code does not currently exist or code choices for the particular domain are still under development and will be added at a later date. These entries are indicated by 'To be advised' (TBA) in this standard.

2 Patient information

This section includes reference to data elements that are already defined and specified in other HISO standards. The format and values for each of these elements are to be obtained from the referenced HISO standard.

Data element		Data element	
2.1	Identity information	2.3	Service co-ordination data
2.2	Patient Enrolment record		

2.1 Identity information

The following table lists patient identity data elements, the content and format definitions of which are set out in the Consumer Health Identity Standard and Iwi Statistical Standards (see 1.6 Related specifications). This information is available to registered health care providers and includes demographic and other generic information. The information is mandatory except for the collection of Iwi information which is optional.

Consumer Health Identity Standard
NHI Number/identifier
Date of birth
Gender
Ethnicity
Date of death
Domicile Code

Iwi Statistical Standard
Iwi

2.2 Patient Enrolment record

DHBs are often the primary oral health service provider for pre-school and school aged children. Enrolment in the service is required to ensure a child receives services on an ongoing basis. The scope and quality of dental care is also monitored over a calendar year. Monitoring an enrolled population and planning future service needs requires the capture of time-sensitive data. Oral health administrators require data that enables them to manage patient enrolment, reconcile school rolls and easily identify who in the eligible population is enrolled.

Service managers and clinicians need to understand why patients leave a DHB service or fall into arrears, and the impact this may have on a patient's continuity of care. Equity of service access and oral health outcomes are understood from patient enrolment elements described in the following section.

Data element		Data element	
2.2.1	Activity status	2.2.7	School year level
2.2.2	Patient record inactive date	2.2.8	School decile rating
2.2.3	Patient record inactive reason	2.2.9	Water fluoridation status - education facility
2.2.4	DHB funded service patient enrolment status	2.2.10	Water fluoridation status - child's home address
2.2.5	DHB service the patient is enrolled in	2.2.11	Date of under-18 oral health service enrolment
2.2.6	Current education facility	2.2.12	DHB under-18 oral health service programme enrolment pathway

2.2.1 Activity status

Some DHBs make patients inactive if they are known to be deceased or to have left the area and are unlikely to require services in the future. Others record a patient as no longer active if they have been unable to contact the patient after several attempts.

Definition	An indicator that the patient is currently receiving or is eligible to receive services from the DHB service provider		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes 0 – No		
Obligation	Mandatory		

Guide for use	Activity status for eligible patients is defined as follows: 1) Community Oral Health Services (COHS), Combined Dental Agreement (CDA) services Both of these feature patient enrolment with a service provider. A recall system is used to co-ordinate examination and preventative services. In this case, a value of 1 – Yes signifies a patient is receiving current services or is scheduled to receive future services. 2) Hospital Dental Services (HDS) The Hospital Dental Service generally accepts patients on a referral basis but may have long-term patients. In this case, a value of: a. 1 – Yes signifies the patient has an open referral, or services are required for the patient in the future b. 0 – No signifies that the patient is known to no longer require services or there have been several unsuccessful attempts to contact a patient A patient record is to be marked as 0 – No if a valid Date of death value is obtained from section 2.1 Identity information. A patient may have an activity status of 0 - No if they have left the service before they were deceased. In this case, section 2.2.3 Patient record inactive reason must: i. have a value other than 4 – Deceased, AND ii. section 2.2.2 Patient record inactive date may be before the value for 'Patient date of death' as described in section 2.1 Identity information
Verification rules	Valid code.

2.2.2 Patient record inactive date

Definition	The date the patient's record in the Oral Health information system was made inactive		
Source standards			
Data type	Date	**Representational class**	Full date
Field size	8	**Representational layout**	YYYYMMDD
Data domain			
Obligation	Mandatory on a response of 1 – Yes to section 2.2.1 Activity status		
Guide for use	When a response of 1 – Yes is recorded to section 2.2.1 Activity status and an inactive date is not known, the date the patient's demographic record was last updated can be entered		
Verification rules	A valid date that is less than or equal to the current date		

2.2.3 Patient record inactive reason

Definition	The reason the patient was deemed no longer eligible for services at the time the patient's record was made inactive		
Source standards			
Data type	Numeric	Representational class	Code
Field size	2	Representational layout	NN

Data domain

Agreed term	Code
Archived	1
Attendance issues	2
Consent refused	3
Deceased	4
Duplicate record	5
Not eligible for publicly funded care (Residency)	6
Not eligible for publicly funded care (Age 18+)	7
Not eligible for publicly funded care (Age 12+)	8
Moved overseas	9
Moved DHB	10
Private provider	11
Recall non-responder	12
Single course of care	13
Moved (Destination unknown)	14
Transfer to Special Dental Service provider	15
Not eligible for publicly funded care (Age unspecified)	16
UAT patient	17
Transfer to Hospital Dental Service	18
Transfer to Community Oral Health Service (COHS)	19

Obligation	Mandatory on a response to section 2.2.2 Patient record inactive date
Guide for use	
Verification rules	Valid code

2.2.4 DHB funded service patient enrolment status

Enrolment implies an expectation of a future service and that an enrolled patient may be (re)called for a service.

Definition	An indicator of the patient's current enrolment status with either the DHB's: a) Community Oral Health Service, or b) Hospital Dental Services for patient's seen under the Combined Dental Agreement		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes, enrolled 0 – No, not enrolled		
Obligation	Mandatory		
Guide for use	Default is '0 – No, not enrolled'		
Verification rules	Valid code		

2.2.5 DHB service the patient is enrolled in

Definition	A code that denotes the DHB service the patient is currently enrolled in for primary oral health services		
Source standards			
Data type	Alphabetic	**Representational class**	Code
Field size	4	**Representational layout**	AAAA
Data domain			

Agreed term	Code
Community oral health services	COHS
Oral health service for adolescents	OHSA
Oral health services (Combined Dental Agreement - Emergency/Temporary enrolment)	ECDA
Special Dental Services	SDS
Other dental programmes	OTH

Obligation	Optional
Guide for use	
Verification rules	Valid code

2.2.6 Current education facility

The collection of current education facility data supports reconciliation of school roll numbers with those in the oral health information system. It supports the identification of patients who are no longer active in the service or who have moved schools within the last 12 months. Current education facility may be an early childhood education centre, day care facility, home schooling and tertiary education facilities.

Definition	The education facility the patient is currently enrolled at		
Source standards	**https://www.educationcounts.govt.nz/data-services/directories/list-of-nz-schools**		
Data type	Numeric	**Representational class**	Code
Field size	4	**Representational layout**	NNNN
Data domain	Those codes available as part of the above link		
Obligation	Mandatory on a: response to section 2.2.5 DHB service the patient is enrolled in		
Guide for use	The facility may not be in the list of New Zealand schools. The code set associated with this standard may be extended to include known education facilities Some under-18-year olds are not at school. If a DHB provides oral health services to an individual who is not at school, they may wish to record 'not in school', 'at work' or record the tertiary education facility attended. These options will not be in the list of New Zealand schools and codes will be required for these options.		
Verification rules	Valid code		

2.2.7 School year level

The child's school year level at the education facility currently attended (as defined by the Ministry of Education). School year level is used to manage transitions, such as when children at the end of school year 8 transition to the Combined Dental Agreement and are enrolled with a Community Service Provider.

Definition	The child's school year level		
Source standards			
Data type	Numeric	**Representational class**	Integer
Field size	2	**Representational layout**	NN
Data domain	1-15 99 (preschool)		
Obligation	Conditional		
Guide for use			
Verification rules	Valid integer only		

2.2.8 School decile rating

Whilst school decile can be derived from the government list of New Zealand schools, not all schools are listed. Decile rating reflects the percentage of the school's students that live in low socio-economic or poorer communities.

Note: The government has indicated an intention to replace the decile rating system by 2022. Section 2.2.8 School decile rating will be replaced when details about the replacement system are available. In the future, school deciles may be retired but this data element is retained in the Standard because decile is a useful indicator of socio-economic status.

Definition	The decile score of the school attended by the patient		
Source standards	School decile rating is defined by the Ministry of Education **https://www.educationcounts.govt.nz/data-services/directories/list-of-nz-schools**		
Data type	Numeric	**Representational class**	Integer
Field size	2	**Representational layout**	NN
Data domain	1-10		
Obligation	Mandatory		
Guide for use	Rating is on a scale of 1-10. Lower decile schools (school decile rating 1-3) have more students living in poorer communities.		
Verification rules	Valid value only		

2.2.9 Water fluoridation status - education facility

Required for DHB enrolled children from birth to the end of school Year 8, unless the child is transferred to a provider delivering services under the Combined Dental Agreement (CDA) or the Hospital Dental Service.

Definition	An indicator to capture the fluoridation status of water operating at the child's current education facility		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	1	**Representational layout**	N
Data domain			

Agreed term	Code
Not recorded	0
Fluoride	1
Non-fluoride	2

Obligation	Mandatory

Guide for use	The water fluoridation status of children attending school is derived from the fluoridation status of water delivered to the school or early childhood facility the child attends. If the child is home-schooled, the fluoridation status of water delivered to the child's residential address should be reported under section 2.2.10 Water fluoridation status - child's home address
Verification rules	Valid code

2.2.10 Water fluoridation status - child's home address

Definition	An indicator to capture the water fluoridation status operating at the child's home address		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	1	**Representational layout**	N
Data domain			

Agreed term	Code
Not recorded	0
Fluoride	1
Non-fluoride	2

Obligation	Optional for DHB enrolled children from birth to the end of school Year 8
Guide for use	If the child is pre-school age or home-schooled, the fluoridation status of the child's residential address should be reported
Verification rules	Valid code

2.2.11 Date of under-18 oral health service enrolment

The date of enrolment may differ from the date the patient is registered in the oral health information system. Some DHBs register a patient at birth to indicate that the parent/guardian may want to use the service at some point in the future.

Definition	The date the patient first enrolled in the DHB's under 18 oral health services programme		
Source standards			
Data type	Date	**Representational class**	Full date
Field size	8	**Representational layout**	YYYYMMDD
Data domain	Date		
Obligation	Mandatory if the patient is under 18 years of age		
Guide for use	If enrolment date is not recorded in the oral health Information system, the patient may not be included in DHB MOH enrolment statistics reporting		

Verification rules	Valid date that is: a) greater than or equal to both 1 January 2001 and the patient's date of birth, and b) less than or equal to the current date

2.2.12 DHB under-18 oral health service programme enrolment pathway

Some regions/DHBs have a multi-enrolment/registration process at birth, whilst others use an oral health coordinator who attends maternity clinics to enrol new-borns. In the case of relief of pain or when a patient moves into a DHB district, enrolment may be self-referred (initiated by the patient, a parent or guardian contacting the service) or by an external organisation/referrer.

Definition	How the patient came to be enrolled in the DHB under 18 oral health programme		
Source standards			
Data type	SNOMED CT identifier	**Representational class**	Code
Field size	18	**Representational layout**	N(18)
Data domain			

Agreed term	SNOMED Concept ID (SCTID)
Birth notification	312486000
Referral from another provider	3457005
Self-referral	306098008

Obligation	Optional if the patient is under 18 years of age
Guide for use	
Verification rules	Valid code

2.3 Service co-ordination data

Service co-ordination data enables the oral health service to understand the patient's clinic location and provider preferences, and to be aware of a patient's needs in respect of appointment planning and support when receiving a service. Collection of this data supports the analysis of service throughput.

Data element		Data element	
2.3.1	Provider information	2.3.3	Siblings in service
2.3.2	Special assistance requirement(s)	2.3.4	Attendance co-ordination alert indicator

2.3.1 Provider information

Provider patient information sourced from the HPI system is to be recorded. The format and description of the information at source is documented in Appendix A: HPI sourced information. This information is Mandatory.

Patient preferred dentist – the HPI Common person number

Current patient service – the HPI Organisation identifier

Patient preferred clinic location – the HPI Facility identifier

2.3.2 Special assistance requirement(s)

Patient special assistance terms and codes are used to enable the service to understand how a patient's special needs impact the support they need to receive a service.

Definition	Identification of the type of service support the patient needs or relies on attending an appointment		
Source standards			
Data type	SNOMED CT identifier	Representational class	Code
Field size	18	Representational layout	N(18)

Data domain	Agreed term	SNOMED Concept ID (SCTID)
	Interpreter	315594003
	Hoist	431188001
	Extra time	TBA
	Appointment assistance (Attendant)	TBA
	Wheelchair	225612007
	Guide dog *(SNOMED CT preferred term is "Dependence on seeing eye dog")*	105506000
	Other Service animal support	TBA
	Pre-requirement for antibiotics	TBA
	Advice re blood thinners	TBA
Obligation	Optional	
Guide for use	Up to eight instances of support requirement may be recorded	
Verification rules	Valid code	

2.3.3 Siblings in service

Definition	An indicator that a patient has siblings enrolled in the service		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes 0 – No		
Obligation	Optional		
Guide for use	For use when coordinating family appointments		
Verification rules	Valid code		

2.3.4 Attendance co-ordination alert indicator

Definition	An indicator that a patient may require special liaison to co-ordinate appointment times		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes 0 – No		
Obligation	Optional		
Guide for use	To be used to identify patients who may require special liaison to identify suitable times for appointments		
Verification rules	Valid code		

3 Clinician information

The consistent collection of information about the oral health clinical workforce will help the service to know how the workforce is being used in service delivery (such as the incidence of preventative work), and if professional development is needed.

Data element		Data element	
3.1	Provider information	3.2	Provider occupation code

3.1 Provider information

Provider clinician information sourced from the HPI system is to be recorded. The format and description of the information is documented in Appendix A: HPI sourced information. This information is Mandatory.

Responsible clinician - the HPI Common person number

Referred from organisation - the HPI Organisation identifier

Referred from facility - the HPI Facility identifier

3.2 Provider occupation code

Definition	A code representing the job role or occupation of a health care provider/worker		
Source standards			
Data type	SNOMED CT identifier	**Representational class**	Code
Field size	18	**Representational layout**	N(18)

Data domain	Agreed term	ANZSCO number	SNOMED Concept ID (SCTID)
	Dentist	252312	106289002
	Dental specialist	252311	21365001
	Dental hygienist	411211	26042002
	Dental technician	411213	160008000
	Dental prosthesis maker and repairer	411212	59317003
	Dental assistant	423211	4162009
	Oral health therapist		TBA
	Oral health educator		TBA
	Orthodontist		37504001
	Oral health surgeon		49993003
	Periodontist		37154003
	Paediatric dentist (SNOMED CT preferred term is "Pedodontist")		90201008
	Special Needs Dentist		TBA
	Maxillofacial Surgeon		TBA
Obligation	Mandatory		
Guide for use	A health care provider may have one or more professional occupations. The code used should be the most appropriate description of the professional occupation of the health care provider working with the patient and for the oral health service. This code is not intended to represent a provider's scope of practice		
Verification rules	Valid code		

4 Patient recall detail

Patient recall details are a record of future service(s) a provider has recommended a patient should receive and the date at which a patient is considered overdue for the recommended service. DHBs are required to report annually on the number of pre-school and primary (to school Year 8) children who are overdue for examination. Identifying that a patient is overdue is complex. The data elements in this section can assist DHBs to consistently monitor patient recall details and identify patients who are not receiving the services a provider has recommended.

Data element		Data element	
4.1	Patient recall purpose code	4.6	Recall status
4.2	Recall due date	4.7	Recall in arrears
4.3	Recall service	4.8	Recall active
4.4	Recall default risk	4.9	Recall inactive/cancellation date
4.5	Recall period	4.10	Recall inactive/cancellation reason

4.1 Patient recall purpose code

DHBs currently use recalls that can specify the need to be examined by a clinician (ie, Therapist Review, Hygienist) or the service to be provided (For example: Annual Assessment, Fluoride Application, Oral Medicine, Oral Surgery).

Definition	A code for the purpose of the patient's recall		
Source standards			
Data type	SNOMED CT identifier	**Representational class**	Code
Field size	18	**Representational layout**	N(18)

Data domain

Agreed term	SNOMED Concept ID (SCTID)
Annual assessment	TBA
Fluoride application	TBA
Hygienist appointment	TBA
Oral health therapist examination	TBA
Dentist examination	TBA
High risk caries	TBA
High risk medical assessment	TBA
High risk medical access	TBA
High risk fluoride application	TBA
Low risk caries	TBA

Obligation	Mandatory
Guide for use	A patient may have one or more recalls concurrently with the same DHB service or with both Community Oral Health Service (COHS) and Hospital Dental Services (HDS)
Verification rules	Valid code

4.2 Recall due date

Definition	The date by which the expected service associated with a recall is due to be completed		
Source standards			
Data type	Date	**Representational class**	Full date
Field size	8	**Representational layout**	YYYYMMDD
Data domain	Date		
Obligation	Mandatory		
Guide for use			
Verification rules	Valid date only		

4.3 Recall service

Definition	A code identifying the service the patient will receive when the recall is delivered		
Source standards	ADASDG		
Data type		**Representational class**	
Field size		**Representational layout**	
Data domain			

Agreed term	Code
	TBA
	TBA
	TBA

Obligation	Optional
Guide for use	This is the service the patient received when the recall was completed. See section 10.1 Service code for explanation of service codes that are in use for DHB funded oral health services.
Verification rules	Valid code only

4.4 Recall default risk

Definition	The default risk associated with the recall purpose identifier (as documented in section 4.1 Patient recall purpose code)		
Source standards			
Data type	SNOMED CT identifier	**Representational class**	Code
Field size	18	**Representational layout**	N(18)

Data domain

Agreed term	SNOMED Concept ID (SCTID)
None	260413007
Low	62482003
Moderate	6736007
High	75540009
Very High	260360000

Obligation	Mandatory
Guide for use	
Verification rules	Valid code

4.5 Recall period

Ministry of Health service standards require enrolled children to be recalled at regular intervals depending on their risk of oral health disease.

Definition	The time interval (in months), between the last examination/service and the recommended future service		
Source standards			
Data type	Numeric	**Representational class**	Integer
Field size	2	**Representational layout**	NN
Data domain	Valid integer greater than zero		
Obligation	Mandatory		
Guide for use			
Verification rules			

4.6 Recall status

Definition	The current workflow status of a patient's recall		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	1	**Representational layout**	N
Data domain			

Agreed term	Code
Awaiting Consent	7
Booked	9
Cancelled	4
Contacted	2
Completed	3
Due	8
Purged	5
Under Treatment	6

Obligation	Optional
Guide for use	
Verification rules	Valid code

4.7 Recall in arrears

Definition	An indicator that a recall is currently in arrears		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes 0 – No		
Obligation	Mandatory on a response to section 2.2.1 Activity status of 1 – Yes		
Guide for use			
Verification rules	Valid code		

4.8 Recall active

Definition	An indicator that the recall is currently active		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes 0 – No		
Obligation	Mandatory		
Guide for use			
Verification rules	Valid code		

4.9 Recall inactive/cancellation date

Definition	The date a recall was made inactive or cancelled		
Source standards			
Data type	Date	**Representational class**	Full date
Field size	8	**Representational layout**	YYYYMMDD
Data domain	Date		
Obligation	Mandatory on a response to section 4.8 Recall active of 1 – Yes		
Guide for use			
Verification rules	Valid date only		

4.10 Recall inactive/cancellation reason

Recalls may be made inactive or cancelled because the service is unable to contact the patient or at the patient's request.

Definition	The reason recorded in the oral health information system that a recall has been cancelled or made inactive		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	2	**Representational layout**	NN
Data domain			

Agreed term	Code
Entered in error	8
Left area	3
Non-responder	5
Patient declined	7
Patient inactive	1
Put forward	4
Transferred to CDA	2
Discharged from service	9
Not eligible for recall	10

Obligation	Mandatory on a response of 2 – No to section 4.8 Recall active
Guide for use	
Verification rules	Valid code

5 Incoming referral information

A referral is a transfer of some or all of the responsibility for a patient's care for a particular purpose. Incoming referrals are received from private dentists or GPs, other oral health service providers and clinicians from other specialties within the DHB. Oral health referrals may be recorded in one or more DHB information systems. Information collected about referrals for oral health service delivery should be aligned with National Patient Flow data collection.

Collecting consistent referral information will enable the DHB service to understand what is driving the demand for specialist oral health services; whether patients are waiting for oral health services in order to receive other specialist treatment; service wait times; and the reasons patients are removed from hospital waiting lists. Referrers do not always know the status of patients they have referred for specialist services and some of the data elements described in this section are concerned with improving inter-service communication and keeping referrers informed about the service delivery status of patients they have referred.

	Data element		Data element
5.1	Referral details duplicated in DHB CWS	5.6	Dental waiting list indicator
5.2	Source of referral	5.7	Seen in specified timeframe indicator
5.3	Referrer notification indicator	5.8	Hospital waiting list removal indicator
5.4	Treatment plan linked to referral	5.9	Referrer notified removed from waiting list
5.5	Receiving other services from a DHB service provider		

5.1 Referral details duplicated in DHB CWS

Definition	An indicator that a referral is recorded in the DHB's public hospital clinical workstation (CWS)		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes 0 – No		
Obligation	Optional		
Guide for use			
Verification rules	Valid code		

5.2 Source of referral

Definition	A code categorising the source of referral		
Source standards	Ministry of Health - National Collections - **National Patient Flow section 10.17.18**		
Data type	SNOMED CT identifier	**Representational class**	Code
Field size	18	**Representational layout**	N(18)

<table>
<tr><td>Data domain</td><td>
<table>
<tr><th>Agreed term</th><th>SNOMED Concept ID (SCTID)</th></tr>
<tr><td>COHS
• Community oral health practitioner, OR
• COHS clinician</td><td>TBA</td></tr>
<tr><td>General practitioner</td><td>305931005</td></tr>
<tr><td>Community Dentist (private)
(SNOMED CT preferred term is “Referral from general dental surgeon”)</td><td>306734004</td></tr>
<tr><td>Emergency department (Own DHB)</td><td>397721007</td></tr>
<tr><td>Specialist (Other DHB)</td><td>TBA</td></tr>
<tr><td>Well Child Tamariki Ora Programme</td><td>TBA</td></tr>
<tr><td>School nurse</td><td>306051000</td></tr>
<tr><td>School teacher</td><td>306097003</td></tr>
<tr><td>Public health nurse</td><td>TBA</td></tr>
<tr><td>Nurse practitioner</td><td>306724008</td></tr>
<tr><td>Self</td><td>306098008</td></tr>
<tr><td>Other agency</td><td>307836003</td></tr>
<tr><td>Aged residential care facility</td><td>305976005</td></tr>
<tr><td>Allied health practitioner</td><td>306056005</td></tr>
<tr><td>Karitane Lead Maternity Carer</td><td>TBA</td></tr>
<tr><td>Plunket</td><td>TBA</td></tr>
<tr><td>Other primary care health practitioner</td><td>305956004</td></tr>
</table>
</td></tr>
<tr><td>Obligation</td><td>Optional</td></tr>
<tr><td>Guide for use</td><td>Referral source cannot always be clearly differentiated (for example where a GP has a primary care practice but attends a patient who lives in a residential care facility). DHB services can opt to implement a reduced list or use local codes which are mapped to these sources. This list may be extended in the future.</td></tr>
<tr><td>Verification rules</td><td>Valid code</td></tr>
</table>

5.3 Referrer notification indicator

Definition	An indication that the referrer has been notified of the DHB Service prioritisation decision		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes 0 – No		
Obligation	Optional		
Guide for use	The default is 0 – No		
Verification rules	Valid code		

5.4 Treatment plan linked to referral

Linking treatment plans to a referral will enable the service to better understand the patient's end-to-end health care journey.

Definition	An indicator that a treatment plan has been linked to the referral		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes (active) 0 – No (inactive)		
Obligation	Optional		
Guide for use			
Verification rules	Valid code		

5.5 Receiving other services from a DHB service provider

Definition	An indication that the patient is currently receiving other (non-dental) specialty services from the DHB (in a hospital or community delivery setting		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes 0 – No		
Obligation	Optional		
Guide for use	This field can be used to indicate service inter-dependencies (ie, oral health services are required before the patient can receive other planned care).		
Verification rules	Valid code only		

5.6 Dental waiting list indicator

This indicator, combined with section 5.5 Receiving other services from a DHB service provider, helps oral health services to understand how many patients are on other specialty waiting lists where dental services are a dependency of other treatment.

Definition	An indicator that a patient has a wait-listed procedure		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes 0 – No		
Obligation	Optional		
Guide for use			
Verification rules	Valid code		

5.7 Seen in specified timeframe indicator

Definition	An indicator that the patient been seen or treated in the specified public waiting timeframe.		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes 0 – No		
Obligation	Optional		
Guide for use			
Verification rules	Valid code		

5.8 Hospital waiting list removal indicator

Definition	The reason the patient's procedure has been removed from the hospital waiting list		
Source standards	Ministry of Health - National Collections - **National Patient Flow section 12.14**		
Data type	Numeric	**Representational class**	Code
Field size	2	**Representational layout**	NN

Data domain

Agreed term	Code
Patient not available (Suspended)	1
Patient decision not to proceed	3
Patient deceased	4
Patient treated privately	5
Entered on list in error	6
Patient received services acutely	7
Patient ineligible for publicly funded care	8
Patient referred to another DHB for care	9
Patient medically unfit (cancelled)	10
Patient medically unfit (suspended)	11
Patient did not attend booking (suspended)	14

Obligation	Mandatory
Guide for use	
Verification rules	Valid code

5.9 Referrer notified removed from waiting list

Definition	An indicator that the referrer has been advised patient has been removed from hospital waiting list		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes 0 – No		
Obligation	Optional		
Guide for use			
Verification rules	Valid code		

6 Outgoing referral information

Outgoing referral information describes the referral that is made by a service to another service (such as a referral from COHS to the HDS). The data elements described in this section enable the DHB service to track the progress of patients who are referred out of their service.

Data element		Data element	
6.1	External service prioritisation decision	6.3	Treatment/service received
6.2	Public waiting list	6.4	Referral discharge summary received

6.1 External service prioritisation decision

Definition	A code denoting the external service referral prioritisation decision		
Source standards	Ministry of Health - National Collections - **National Patient Flow – refer section 12.21**		
Data type	Alphabetic	**Representational class**	Code
Field size	1	**Representational layout**	A
Data domain			

Agreed term	Code
Accepted	A
Declined	D
Transferred	T
Not decided	N

Obligation	Optional
Guide for use	
Verification rules	Valid code

6.2 Public waiting list

Definition	An indication that the patient is wait listed for the service		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	1	**Representational layout**	N
Data domain			

Agreed term	Code
Yes	1
No	2
Unknown	3

Obligation	Optional
Guide for use	
Verification rules	Valid code

6.3 Treatment/service received

Definition	An indication that the patient has received service or treatment under the referral		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	1	**Representational layout**	N
Data domain			

Agreed term	Code
Yes	1
No	2
Unknown	3

Obligation	Optional
Guide for use	
Verification rules	Valid code

6.4 Referral discharge summary received

Definition	The date the referrer has received a discharge summary in respect of the referral		
Source standards			
Data type	Date	**Representational class**	Full date
Field size	8	**Representational layout**	YYYYMMDD
Data domain	Date		
Obligation	Optional		
Guide for use			
Verification rules	A valid date that is less than or equal to the current date		

7 Consent

Consent recognises the terms, rules and conditions related to the authorisation or restrictions of service delivery. Every informed consent process is different and every interaction (including any attempts to engage) with a patient, parent, legal guardian, or family member by any form of communication, is part of the informed consent process and should be recorded in the clinical record.

The data elements in this section record screening or treatment consent. Screening consent can be obtained at the time of enrolment/registration with a service. Treatment consent tends to be recorded in a specific treatment plan. Consent is not a 'tick-box' exercise and the onus is on the clinician treating the patient to know what the patient or their guardian has consented to. There is a need to be able to identify those patients for whom treatment has not yet gone ahead because consent has not been obtained.

Data element		Data element	
7.1	Category code	7.7	Status of treatment consent
7.2	Scope of consent	7.8	Consent effective from date
7.3	Treatment on hold due to consent	7.9	Consent effective to date
7.4	Examination for Treatment Consent type	7.10	Consent form
7.5	Treatment Consent type	7.11	Consent source
7.6	Status of Examination for Treatment consent		

7.1 Category code

Definition	A category code which classifies the service context for consent		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	1	**Representational layout**	N

Data domain

Agreed term	Code
Community Oral Health service (COHS)	1
Hospital Dental service (HDS)	2
Adolescent services (CDA)	3
Special Dental services (CDA)	4

Obligation	Optional
Guide for use	The type of consent may vary according to whether the service is the primary or secondary dental service provider for the patient

Verification rules	Valid code

7.2 Scope of consent

A description of the activity/scope of consent that has been collected in advance for the patient (also known as Screening Consent).

Definition	The scope of activity for which consent is covered		
Source standards			
Data type	SNOMED CT identifier	**Representational class**	Code
Field size	18	**Representational layout**	N(18)
Data domain			

Agreed term	SNOMED Concept ID (SCTID)
Regular dental checks	34043003
Cleaning and scaling *(SNOMED CT Preferred term is "Dental scaling and polishing")*	234696006
Dental X-Rays	22891007
Fluoride varnish	313042009
Fissure sealants	234713009
Procedures on mouth	118814005
Sedation and anaesthesia	410011004

Obligation	Optional
Guide for use	
Verification rules	Valid code

7.3 Treatment on hold due to consent

Definition	An indicator that treatment cannot proceed because the DHB has been unable to obtain consent.		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes 0 – No		
Obligation	Optional		
Guide for use			

Verification rules	Valid code

7.4 Examination for Treatment Consent type

Consent can be one-off, given until advised differently, or expiring on a specified date.

Definition	The type of screening consent given		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	1	**Representational layout**	N
Data domain			

Agreed term	Code
Examinations – full	1
Examinations – refused	2
Preventive – full	3
Preventive – refused	4
Preventive – partial	5

Obligation	Optional
Guide for use	
Verification rules	Valid code

7.5 Treatment Consent type

Consent can be one-off, given until advised differently, or expiring on a specified date.

Definition	The type of treatment consent given		
Source standards			
Data type	SNOMED CT identifier	**Representational class**	Code
Field size	18	**Representational layout**	N(18)
Data domain			

Agreed term	SNOMED Concept ID (SCTID)
Full consent to treat	408835000
Declined consent to treat	737038009
Not given: providing acute emergency care	TBA

Obligation	Optional
Guide for use	

Verification rules	Valid code

7.6 Status of Examination for Treatment consent

A patient may have multiple consent records. Current status of the consent applies to the scope of consent and recognises that the time interval for consent may have expired and needs to be renewed.

Definition	The current status of screening consent		
Source standards			
Data type	SNOMED CT identifier	**Representational class**	Code
Field size	18	**Representational layout**	N(18)
Data domain			

Agreed term	SNOMED Concept ID (SCTID)
Active	55561003
Inactive	73425007
Entered in error	723510000

Obligation	Optional
Guide for use	
Verification rules	Valid code

7.7 Status of treatment consent

A patient may have multiple consent records. Current status of the consent applies to the scope of consent and recognises that the time interval for consent may have expired and needs to be renewed.

Definition	The current status of treatment consent		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	1	**Representational layout**	N
Data domain	**Agreed term**		**Code**
	Active		55561003
	Inactive		73425007
	Entered in error		723510000
Obligation	Optional		
Guide for use			
Verification rules	Valid code		

7.8 Consent effective from date

A patient may have multiple records associated with their scope of consent.

Definition	The date the status of consent is effective from		
Source standards			
Data type	Date	**Representational class**	Full date
Field size	8	**Representational layout**	YYYYMMDD
Data domain	Date		
Obligation	Mandatory on a response of 1 – Active to section 7.6 Status of Examination for Treatment consent		
Guide for use			
Verification rules	A valid date that is less than or equal to the current date		

7.9 Consent effective to date

A patient may have multiple records associated with their scope of consent.

Definition	The date the consent expired		
Source standards			
Data type	Date	**Representational class**	Full date
Field size	8	**Representational layout**	YYYYMMDD
Data domain	Date		
Obligation	Mandatory on a response of 2 – Inactive or 3 – Entered in error to section 7.6 Status of Examination for Treatment consent		
Guide for use			
Verification rules	A valid date that is more than or equal to the current date		

7.10 Consent form

Definition	How was consent obtained		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	1	**Representational layout**	N

Data domain

Agreed term	Code
Verbal	1
Hand written	2
Electronically written	3
Online health record	4

Obligation	Optional
Guide for use	
Verification rules	Valid value

7.11 Consent source

Definition	Who verified consent was given		
Source standards			
Data type	SNOMED CT identifier	**Representational class**	Code
Field size	18	**Representational layout**	N(18)

Data domain

Agreed term	SNOMED Concept ID (SCTID)
Patient	116154003
Legal guardian	58626002
Person acting in place of patient *(SNOMED CT Preferred term is "Patient advocate")*	429577009
Enduring power of attorney	TBA

Obligation	Optional
Guide for use	
Verification rules	Valid code

8 Appointment information

The data elements and codes in this section will enable oral health administrators and clinicians to manage appointments, efficiently plan ahead; understand how many clinics and appointments are cancelled due to staff shortages and illnesses and follow-up of high needs patients who do not attend examinations and treatments. Appointment information combined with patient demographics and service delivery information enables the DHB to understand how access barriers impact population oral health.

Data element		Data element	
8.1	Appointment date/time	8.6	Individual cancelling appointment
8.2	Appointment length	8.7	Appointment status
8.3	New patient indicator	8.8	Number of reminders
8.4	Date appointment cancelled	8.9	Appointment location
8.5	Reason appointment cancelled		

8.1 Appointment date/time

Definition	The date of the patient's appointment		
Source standards			
Data type	Date/time	**Representational class**	Full date and time
Field size	14	**Representational layout**	YYYYMMDD HH:MM
Data domain	Date/time		
Obligation	Mandatory		
Guide for use	24-hour clock time format		
Verification rules	A valid date/time		

8.2 Appointment length

Definition	The allocated length of time of the booking in minutes		
Source standards			
Data type	Numeric	**Representational class**	Integer
Field size	3	**Representational layout**	NNN
Data domain	Valid numbers		
Obligation	Mandatory		
Guide for use			
Verification rules	An integer greater than zero		

8.3 New patient indicator

The new patient appointment indicator is set when a patient attends their first appointment. The indicator alerts providers that additional administration and attention is required on this visit.

Definition	An indicator that the appointment is for a new patient		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes 0 – No		
Obligation	Mandatory		
Guide for use			
Verification rules	Valid code		

8.4 Date appointment cancelled

Definition	The date a booking was cancelled		
Source standards			
Data type	Date	**Representational class**	Full date
Field size	8	**Representational layout**	YYYYMMDD
Data domain	Date		
Obligation	Conditional		
Guide for use			
Verification rules	A valid date less than or equal to the current date		

8.5 Reason appointment cancelled

Definition	The reason an appointment was cancelled		
Source standards			
Data type	SNOMED CT identifier	**Representational class**	Code
Field size	18	**Representational layout**	N(18)

Data domain

Agreed term	SNOMED Concept ID (SCTID)
Patient unavailable	398090008
Staff sickness	405536006
Transport problems	266934004
Late arrival	185328004
Clinician unavailable	TBA
Administration error	185981001

Obligation	Mandatory on a valid date recorded in section 8.4 Date appointment cancelled
Guide for use	
Verification rules	Valid code

8.6 Individual cancelling appointment

Definition	The individual who cancelled the appointment		
Source standards			
Data type	SNOMED CT identifier	**Representational class**	Code
Field size	18	**Representational layout**	N(18)

Data domain

Agreed term	SNOMED Concept ID (SCTID)
Patient	116154003
Patient Guardian/Caregiver	133932002
Teacher/School Principal	TBA
Other patient family member	303071001
Administrator	TBA
Dental clinician	TBA

Obligation	Optional
Guide for use	
Verification rules	Valid code

8.7 Appointment status

Definition	The status of a patient's appointment according to the Oral Health Information System workflow		
Source standards			
Data type	SNOMED CT identifier	**Representational class**	Code
Field size	18	**Representational layout**	N(18)

Data domain

Agreed term	SNOMED Concept ID (SCTID)
Booked	317411000
Attended *(SNOMED CT Preferred term is "Seen in establishment")*	308467007
Did not attend/failed to attend	185324002
Cancelled	TBA

Obligation	Mandatory
Guide for use	
Verification rules	Valid code

8.8 Number of reminders

Definition	The number of times a patient is reminded about the appointment		
Source standards			
Data type	Numeric	**Representational class**	Integer
Field size	2	**Representational layout**	NN
Data domain	Valid numbers		
Obligation	Optional		
Guide for use			
Verification rules	An integer greater than zero		

8.9 Appointment location

Appointment information sourced from the HPI system is to be recorded. The format and description of the information is documented in Appendix A: HPI sourced information. This information is Mandatory.

Facility code - the HPI Facility identifier

9 Course of care summary details

An oral health course of care (treatment plan) may include examinations, diagnoses, procedures, recording of notes and treatment consent. It may span one or more appointments. A course of care may be marked as completed and may involve invoicing. The data elements defined in this section relate to information about the patient's planned and actual service (including service location, whether treatment approval is required), and service completion status. Consistent recording of these details will enable service managers to understand how their service is performing in real time.

	Data element		Data element
9.1	Course of care/treatment plan unique identifier	9.4	Number of service items in examination/treatment course of care
9.2	Date examination/treatment course of care started	9.5	Course of care/treatment approval required
9.3	Date examination/treatment course of care completed	9.6	Course of care/treatment approval received

9.1 Course of care/treatment plan unique identifier

Definition	The unique identifier for an Examination and Treatment Plan for a Course of Care		
Source standards			
Data type	Numeric	**Representational class**	Integer
Field size	10	**Representational layout**	N(10)
Data domain	Valid numbers		
Obligation	Mandatory		
Guide for use			
Verification rules	Integer		

9.2 Date examination/treatment course of care started

An oral health examination and treatment course of care may span one or more dates/appointments. The start date recognises when a course of care starts.

Definition	The date the examination and/or treatment course of care is planned to start		
Source standards			
Data type	Date	**Representational class**	Full date
Field size	8	**Representational layout**	YYYYMMDD
Data domain	Date		
Obligation	Conditional		
Guide for use	This date will be the earliest (minimum) 'Treatment Planned Date' for the examination and treatment course of care uniquely identified in section 9.1 Course of care/treatment plan unique identifier.		
Verification rules	A valid date that is less than or equal to the current date		

9.3 Date examination/treatment course of care completed

Definition	Date the treatment plan was completed		
Source standards			
Data type	Date	**Representational class**	Full date
Field size	8	**Representational layout**	YYYYMMDD
Data domain	Date		
Obligation	Mandatory on completion of treatment		
Guide for use	Conditional on service/treatment course of care being completed. The date at which the identified course of care specified in section 9.1 Course of care/treatment plan unique identifier is completed. If treatment is not yet completed (or recorded) then date examination/treatment course of care completed date may be blank		
Verification rules	A valid date that is: a) Greater than or equal to the date in section 9.2 Date examination/treatment course of care started, and b) less than or equal to the current date		

9.4 Number of service items in examination/treatment course of care

Definition	The number of service items in an oral health examination/treatment course of care		
Source standards			
Data type	Numeric	**Representational class**	Integer
Field size	2	**Representational layout**	NN
Data domain	1-99		
Obligation	Optional		
Guide for use	Refer Section 10.1 Service code for Service items definition		
Verification rules	An integer greater than zero		

9.5 Course of care/treatment approval required

Definition	An indicator that prior approval is required before treatment can proceed		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes 0 – No		
Obligation	Mandatory on completion of treatment		
Conditional			
Verification rules	Valid code		

9.6 Course of care/treatment approval received

Definition	An indicator that prior approval has been received for treatment to proceed		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes 0 – No		
Obligation	Conditional		
Guide for use			
Verification rules	Valid code		

10 Service details

The data elements in this section support service delivery benchmarking and will enable DHB stakeholders to recognise how the non-delivery of services (such as bite wing X-rays) impacts on patient health outcomes. Service details support understanding of how many treatments are repeated and changes to diagnosis hanged (which may indicate workforce training and professional development needs).

The following table details the services provided in the uniquely identified course of care described in section 9.1 Course of care/treatment plan unique identifier.

	Data element		Data element
10.1	Service code	10.6	Surface
10.2	Planned and actual treatment plan service provider	10.7	Service is completed
10.3	Provider role in service	10.8	Education facility at time of examination/treatment
10.4	Planned and actual examination/treatment location	10.9	Radiographs linked to service record
10.5	Tooth number		

10.1 Service code

DHB oral health services want to be able to better understand the incidence of certain types of work, (such as preventative work), and the relationship between services, oral health outcomes and patient quality of life (in respect of pain). The use of a nationally consistent set of oral health service procedure codes supports clinical audit.

Definition	A service code associated with a term that describes an oral health service, eg, examination, diagnosis, treatment or procedure provided in a course of care.		
Source standards			
Data type	SNOMED CT identifier	**Representational class**	Code
Field size	18	**Representational layout**	N(18)

Data domain

Agreed term	SNOMED Concept ID (SCTID)
	TBA
	TBA
	TBA
	TBA
	TBA

Obligation	Conditional
Guide for use	Historically there is variation in the use of codes and terms by DHBs in New Zealand. The sector uses procedure codes defined by the Australian Dental Association (with New Zealand extensions), ACC, in the Combined Dental Agreement, and local/custom codes.
Verification rules	Valid code

10.2 Planned and actual treatment plan service provider

Service detail information sourced from the HPI system is to be recorded. The format and description of the information is documented in Appendix A: HPI sourced information. This information is Mandatory.

Planned treatment provider - the HPI Common person number

Actual treatment provider - the HPI Common person number

10.3 Provider role in service

A service may be provided by one or more providers. Recording provider role in service supports understanding of current oral health workforce utilisation and professional development needs, as well as planning future workforce needs.

Definition	A code denoting the provider's role in examination services/treatment delivered to the patient as part of a course of care.		
Source standards			
Data type	SNOMED CT identifier	**Representational class**	Code
Field size	18	**Representational layout**	N(18)

Data domain

Agreed term	SNOMED Concept ID (SCTID)
Specialist	TBA
Dentist	TBA
Dental/oral health therapist	TBA
Hygienist	TBA
Assistant	TBA
Student oral health therapist	TBA
Student dentist	TBA
Tutor/mentor oral health therapist	TBA
Faculty partner	TBA

Obligation	Optional
Guide for use	
Verification rules	Valid code

10.4 Planned and actual examination/treatment location

The location of planned and actual service delivery are to be recorded using HPI Facility identifiers . The format and description of the information is documented in Appendix A: HPI sourced information. This information is Mandatory.

Planned treatment facility - the HPI Facility identifier

Actual treatment facility - the HPI Facility identifier

10.5 Tooth number

Definition	Tooth number that the service code refers to. Identified by a two-digit numbering system that refers to the quadrant of the mouth and number of the tooth		
Source standards	Fédération Dentaire Internationale (FDI), also known as ISO 3950 notation. Seer **https://www.iso.org/standard/68292.html**		
Data type	Numeric	**Representational class**	Integer
Field size	2	**Representational layout**	NN
Data domain	11-85		
Obligation	Optional		
Guide for use			
Verification rules	An integer that is greater than 10 and less than 86		

10.6 Surface

Definition	The tooth surface(s) associated with a diagnosis, examination or treatment service code.		
Source standards			
Data type	Alphabetic	**Representational class**	Code
Field size	20	**Representational layout**	A(20)
Data domain			

Agreed term	Code
Occlusal	83473006
Mesial	8483002
Buccal	245648002
Distal	90933009
Lingual	72203008
Labial	245647007
Palatal	245650005

Obligation	Optional
Guide for use	
Verification rules	Valid code

10.7 Service is completed

Definition	An indicator that the patient's service code is complete		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes 0 – No		
Obligation	Mandatory		
Guide for use			
Verification rules	Valid code		

10.8 Education facility at time of examination/treatment

Recorded for the under-18 enrolled population. Education facility at time of examination/treatment may be an early childhood education centres, day care facilities, home schooling and tertiary education facilities.

Definition	The education facility the patient is attending at the time of treatment		
Source standards	**https://www.educationcounts.govt.nz/data-services/directories/list-of-nz-schools**		
Data type	Numeric	**Representational class**	Code
Field size	4	**Representational layout**	NNNN
Data domain			
Obligation	Mandatory on a: response to section 2.2.5 DHB service the patient is enrolled in		
Guide for use			
Verification rules	Valid code		

10.9 Radiographs linked to service record

Definition	An indication that radiographs are linked to this service record		
Source standards			
Data type	Boolean	**Representational class**	N/A
Field size	1	**Representational layout**	N(1,0)
Data domain	1 – Yes 0 – No		
Obligation	Mandatory if available		
Guide for use	Default is No.		
Verification rules	Valid code		

11 Decayed, missing, filled teeth

dmft/DMFT is an index of the dental caries experience of the patient determined by counting the number of decayed (d), missing (m), and filled (f) teeth. Lower case letters denote primary teeth (dmft) and upper-case letters (DMFT) denote permanent teeth.

dmft/DMFT	Decayed, missing or filled teeth • dmft (in lower case) primary teeth – deciduous teeth • DMFT (in upper case) adult teeth – non-deciduous teeth only • dmft/DMFT – deciduous and non-deciduous teeth

The index is calculated following an oral health examination and is typically used to benchmark the oral health status of two age groups:

- dmft for primary teeth
- dmft/DMFT for primary and permanent teeth

A DHB's oral health information system needs to enable the reporting of dmft/DMFT index to show that DHB and other health and social services (such as Well Child Tamariki Ora and Oranga Tamariki) have made an impact on the outcome of protecting and promoting good health and independence through providing effective publicly-funded child oral health programmes. dmft/DMFT data, itemised by ethnicity and fluoridation status, enables DHBs to identify and target the populations in their district where children's oral health status is poorest.

Data element		Data element	
11.1	Facility where dmft/DMFT recorded	11.6	Permanent teeth
11.2	School at time of dmft/DMFT examination	11.7	Deciduous teeth
11.3	Education facility fluoride status at dmft/DMFT	11.8	Fissure protectants/sealants
11.4	dmft/DMFT record type	11.9	Root information
11.5	Date of dmft/DMFT		

11.1 Facility where dmft/DMFT recorded

Service detail information sourced from the HPI system is to be recorded. The format and description of the information is documented in Appendix A: HPI sourced information. This information is Mandatory.

11.2 School at time of dmft/DMFT examination

Definition	The school/education facility the patient attended at the time of the dmft/DMFT examination		
Source standards	**https://www.educationcounts.govt.nz/data-services/directories/list-of-nz-schools**		
Data type	Numeric	**Representational class**	Code
Field size	4	**Representational layout**	NNNN
Data domain	Valid codes		
Obligation	Optional		
Guide for use			
Verification rules	Valid code		

11.3 Education facility fluoride status at dmft/DMFT

Definition	The school/education facility water fluoride status at the time of the dmft/DMFT examination		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	1	**Representational layout**	N
Data domain			

Agreed term	Code
Not recorded	0
Fluoride	1
Non-fluoride	2

Obligation	Optional
Guide for use	If the child is home-schooled, the fluoridation status at the child's residential address should be the same as reported in section 2.2.10 Water fluoridation status - child's home address
Verification rules	Valid code

11.4 dmft/DMFT record type

Definition	The stage of the examination/treatment process when the dmft/DMFT was recorded		
Source standards			
Data type	Numeric	**Representational class**	Code
Field size	1	**Representational layout**	N
Data domain			

Agreed term	Code
Examination	0
Treatment	1
Completion	2

Obligation	Optional
Guide for use	
Verification rules	Valid code

11.5 Date of dmft/DMFT

Definition	The date of the dmft/DMFT examination		
Source standards			
Data type	Date	**Representational class**	Full date
Field size	8	**Representational layout**	YYYYMMDD
Data domain	Date		
Obligation	Mandatory		
Guide for use			
Verification rules	A valid date that is less than or equal to the current date		

11.6 Permanent teeth

Definition	Information in respect of permanent teeth when the dmft/DMFT examination was recorded		
Source standards			
Data type	Numeric	**Representational class**	Integer
Field size	2	**Representational layout**	NN

Data domain

Agreed term for permanent teeth information	Number
Number of teeth present	0-32
Number of caries free teeth	0-32
Number of decayed teeth	0-32
Number with decayed surfaces	0-99
Number of missing teeth	0-32
Number of missing surfaces	0-99
Number of filled teeth	0-32
Number of filled surfaces	0-99
Number of teeth with noncavitated carious lesions	0-32
Number of teeth surfaces with noncavitated carious lesions	0-99

Obligation	Mandatory
Guide for use	
Verification rules	Record a valid number for each and every agreed term

11.7 Deciduous teeth

Definition	Information in respect of deciduous teeth when the dmft/DMFT examination was recorded		
Source standards			
Data type	Numeric	**Representational class**	Integer
Field size	2	**Representational layout**	NN

Data domain

Agreed term for deciduous teeth information	Number
Number of teeth present	0-20
Number of caries free teeth	0-20
Number of decayed teeth	0-20
Number with decayed surfaces	0-99
Number of missing teeth	0-20
Number of missing surfaces	0-99
Number of filled teeth	0-20
Number of filled surfaces	0-99
Number of teeth with noncavitated carious lesions	0-20
Number of teeth surfaces with noncavitated carious lesions	0-99

Obligation	Mandatory
Guide for use	
Verification rules	Record a valid number for each and every agreed term

11.8 Fissure protectants/sealants

Definition	Information in respect of fissure protectants/sealants when the dmft/DMFT examination was recorded		
Source standards			
Data type	Numeric	**Representational class**	Integer
Field size	2	**Representational layout**	NN

Data domain

Agreed term for fissure sealants	Number
Number of teeth with fissure protectants/sealants	0-32
Number of surfaces with fissure protectants/sealants	0-99

Obligation	Mandatory
Guide for use	
Verification rules	Record a valid number for each and every agreed term

11.9 Root information

Definition	Root information when the dmft/DMFT examination was recorded		
Source standards			
Data type	Numeric	**Representational class**	Integer
Field size	2	**Representational layout**	NN

Data domain

Agreed term for fissure sealants	Number
Number of root decay teeth	0-32
Number of root filled teeth	0-32
Number of root decay surfaces	0-99
Number of root filled surfaces	0-99

Obligation	Mandatory
Guide for use	
Verification rules	Record a valid number for each and every agreed term

Appendix A: HPI sourced information

The following three data elements set out the information that is to be held within the Oral Health system. The table identifies the requisite HPI system field name and data format for a provider, organisation and facility.

Common person number

The Common Person Number (CPN) identifies an individual person. The CPN takes precedence over all other health worker identifiers across the HPI.

Definition	A unique six-character identifier assigned by the HPI system to an individual person		
Source standards			
Data type	Alphanumeric	**Representational class**	Identifier
Field size	6	**Representational layout**	NCAAAA
Data domain	Valid CPN only		
Obligation	Mandatory		
Guide for use	Only the HPI system generates a new unique CPN which is the primary key for person records. This CPN is not re-used once assigned. Where more than one CPN exists for a single person, one CPN is declared 'live' and all other CPNs are made 'dormant' and attached to the live record. The CPN is the primary key for person records. A Modulus 11 routine is used to produce the identifier check digit		
Verification rules	N – is a number excluding number zero "0" A – is an alpha character excluding letter 'I' or 'O' C – is a check digit number in the second position calculated using check digit Modulus 11.		

Organisation identifier

Definition	A unique 8-character ID assigned by the HPI system to an individual organisation		
Source standards			
Data type	Alphanumeric	**Representational class**	Identifier
Field size	8	**Representational layout**	GXXNNN-C
Data domain			
Obligation	Mandatory		
Guide for use	Only the HPI system generates an HPI organisation identification (HPI ORG ID). This ID is not re-used once assigned. Where more than one HPI ORG exists for an organisation, one is declared 'live' and all other HPI ORG IDs are made 'dormant' and attached to the live record. The HPI ORG ID is the primary key for organisation records. A Modulus 11 check digit routine is run over the organisation identifier to produce the organisation identifier check digit		
Verification rules	G is a constant prefix. X is either an alphabetic or a numeric. N is a numeric C is the Check Digit established using the Modulus 11 system.		

Facility identifier

Definition	A unique 8-character identifier assigned by the HPI system to an individual facility		
Source standards			
Data type	Alphanumeric	**Representational class**	Identifier
Field size	8	**Representational layout**	FXXNNN-C
Data domain	Valid HPI Facility Identifier		
Obligation	Mandatory		
Guide for use	Only the HPI System generates a new HPI FAC ID. They are not re-used once assigned. Where more than one FAC ID exists for a single facility, one FAC ID is declared 'live' and all others are made 'dormant' and attached to the live record. The HPI FAC ID is the primary key for facility records. A Modulus 11 check digit routine is run over the six characters of the facility identifier to produce the facility identifier check digit		
Verification rules	F is a constant prefix – all facility identification numbers start with 'F'. X is either an alphabetic or a numeric. N is a number C is the check digit established using the Modulus 11 system The Facility Identifier is assigned by the HPI system at the time that the facility record in the HPI is created.		