Prepared by:

Health Workforce Information Programme (HWIP): Base Data
Dataset Standard

Version	Date	Status
1.0	8 March 2006	Draft for initial discussion
4.0	December 2012	Updated to align with code sets
7.0	March/April 2017	Updated in line with code set changes
8.0	September 2017	Updated document format
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11.0	Dec 2018	Updated document format and to align with code set changes
12.0	July 2021	Updated annualised base salary comments for clarity

Related Documents

Standards

Statistics New Zealand, "ANZSCO - Australia New Zealand Standard Classification of Occupation V1.2", Statistics New Zealand, 2013

Statistics New Zealand, "Country – New Zealand Standard Classification 1999 Numeric, V12.0", Statistics New Zealand, 2014

Statistics New Zealand, "Statistical Standard of Ethnicity 2005 – V2.0", Statistics New Zealand, 2017

Statistics New Zealand, "Statistical Standard for Gender Identity – V1.0" Statistics New Zealand 2015

Other Publications

Ministry of Health. HISO 10001:2017 Ethnicity Data Protocols. Wellington: Ministry of Health, 2017.

1 Introduction

The health workforce information programme (HWIP) is part of the Strategic Workforce Services group within TAS. The programme has been capturing and reporting credible and timely DHB employed demographic data since 2006.

This document should be read in conjunction with the HWIP data code set.

It should be noted that there have been continual updates to the collection, including the removal of some variables and the addition of others, as set out below.

Variables removed from the dataset collection in 2013:

- Qualification list
- Medical trainee level
- Health service
- Union status

Variables introduced into the dataset collection at the end of 2013 and 2014:

- Year of first (relevant) professional qualification and Country of first (relevant) professional qualification
- Primary area of work
- Annualized base salary
- Pay derived document
- Annual leave entitlement
- Sick leave hours

Variable introduced into the dataset collection at the end of 2015:

- Vacancy numbers – this data is reported on a separate spreadsheet.

2 Details of the data standard

2.1   Data Standard Type

This section describes the data standards for both the records and the attributes required for practitioners, health workers, organisations and facilities.

This data standard reflects a logical view of the data. It does not necessarily represent the physical implementation of the data.

Every entity will require the following additional audit attributes to enable the recreation of an HWIP record at a point in time and attribute the data to someone:

(a)   create data source organisation ID

(b)   individual user ID

(c)   create an expiry date and time.

2.2   Data Element Structure

Each data element has been defined according to a set of metadata components that are based on ISO Standard 11179 *Information Technology – Specification and standardization of data elements*, 2015. Most components such as definition, data type, representational form, data domain, etc., describe essential

features of the structure of a data element. Some components such as collection methods and comments describe additional, non-essential features and may be left blank where appropriate.

The metadata components of each data element are:

(a) **Definition:** A statement that expresses the essential nature of the data element and its differentiation from all other data elements.

(b) **Source Standards:** Details of established data definitions or guidelines for data elements that have been cited in this Standard.

(c) **Data Type:** Alphanumeric (AN), Alphabetic (A), Numeric (N, numbers including decimals), Boolean (Y/N or checkbox on/off).

(d) **Date Data Structure:** Year (Y), Month (M) and Day (D). Full date representation is YYYYMMDD.

(e) **Representational Class:** For A, N and AN, use code, free text, value or identifier. For date use full, partial or both date types. Does not apply to Boolean types.

(f) **Field Size:** Maximum number of characters that may be recorded in the field.

(g) **Representational Layout:** The arrangement of characters in the data element. For example, 'A(50)' means up to 50 alphabetic characters; 'NNAAAA' means numeric, numeric, alpha, alpha, alpha, alpha.

(h) **Data Domain:** The valid values or codes that are acceptable for the data element. The data elements contained in this standard are dates, free text or coded. For each data element that is coded, a code value is provided in the HWIP Code Set, as well as a description and an explanation of the code value. The valid values or codes contained in this standard are principally New Zealand values, although, in certain cases, international codes are used. Free text fields also allow international data to be received and stored.

(i) **Guide For Use:** Additional guidance to inform the use of the data element.

(j) **Verification Rules:** Quality control mechanisms that preclude non-valid codes from the data element.

3 HWIP entity data elements

3.1 Employment: Measuring Human Resource Demand

Following is the list of data elements used to measure the nature and amount of human resource in employment within the DHBS.

3.1.1 All Data Elements

3.1.1. Personal

3.1.1.1. Unique employee identifier

3.1.1.2. Facility of usual employment

3.1.1.3. Organization (Agency)

3.1.1.4. Birth year

3.1.1.5. Gender

3.1.1.6. Ethnicity

3.1.2. Employment

3.1.2.1. Employment start date

3.1.2.2. Employment end date

3.1.2.3. Entry source

3.1.2.4. Exit source/destination

3.1.2.5. Reason for leaving

3.1.2.6.   Paid employment status

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3.1.3.   Union

3.1.3.1.   Union membership

3.1.4.   Role

3.1.4.1.   ANZSCO (Australia New Zealand Standard Classification of Occupations)

3.1.4.2.   Job title

3.1.4.3.   DHB common chart of accounts occupation

3.1.4.4.   Primary area of work

3.1.5.   Registration

3.1.5.1.   Registration authority unique identification number (membership number)

3.1.5.2.   Practitioner scope of practice

3.1.6.   Education

3.1.6.1.   Country of first professional qualification

3.1.6.2.   Year of first professional qualification

Appendix A – Vacancy data collection

Appendix B – Abbreviations

3.1.1. Personal

3.1.1.1 Unique employee identifier

Definition:	A unique employee identifier for all staff with this employer		
Source standards:			
Data type:	Alphanumeric	**Representational Class:**	Free Text
Field size:	**Max:** 25	**Representational layout:**	AN(25)
Data Domain			
Guide for use:	This identifier is given by the employer and must be unique to the employee at that particular organisation.		
Verification rules:			

3.1.1.2 Facility of usual employment

Definition:	A facility has one physical location from which health goods and/or services are provided. A unique identifier for a facility.		
Source standards:	http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables/facility-code-table		
Data type:	Numeric	Representational class:	Identifier
Field size:	**Max**: 4	Representational layout:	NNNN
Data Domain:			
Guide for use:			
Verification rules:	Must be a valid code set.		

3.1.1.3 Organization (Agency)

Definition:	A unique identifier for an organisation (agency) assigned by the Data Source.		
Source standards:	http://www.health.govt.nz/nz-health-statistics/data-references/code-tables/common-code-tables/agency-code-table		
Data type:	Numeric	Representational class:	Identifier
Field size:	**Max**: 4	Representational layout:	NNNN
Data domain:			
Guide for use:	Only DHB organisations/agencies to be used.		
Verification rules:	Must be a valid code set		

3.1.1.4 Birth year

Definition:	The year of birth of the person.		
Source standards:			
Data type:	Numeric	Representational class:	Partial date
Field size:	**Max**: 4	Representational layout:	YYYY
Data domain:	Valid year.		
Guide for use:	Enter the full Year of Birth using a four digit year. If the date of birth is not known, provision should be made to collect age data (in years) and a year of birth is to be derived from that age data (i.e. YYYY).		
Verification rules:	This field must: (a) be less than or equal to the date of record creation; and (b) be a valid year.		

3.1.1.5 Gender

Definition:	A classification of the gender of an individual.		
Source standards:	http://www.stats.govt.nz/methods/classifications-and-standards/classification-related-stats-standards/gender-identity.aspx		
Data type:	Alphabetic	Representational Class:	Code
Field size:	**Max**: 1	Representational layout:	A
Data domain:			
Guide for use:	Code 'U' (Unknown) should only be used if the circumstances dictate that the data is not able to be collected.		
Verification rules:	Valid code set value only.		

3.1.1.6 Ethnicity

Definition:	'Ethnicity' is used as a label, which helps to differentiate ethnic groups within a population. Traditionally ethnic groups have been distinguished by objective features such as cultural values and customs, beliefs, language, common history, etc.		
Source standards:	Ethnicity New Zealand Standard Classification 2005 V2.0 http://archive.stats.govt.nz/methods/classifications-and-standards/classification-related-stats-standards/ethnicity.aspx		
Data type:	Numeric	Representational Class:	Code
Field size:	**Max: 5**	Representational layout:	NNNNN
Data Domain	1 – 99999		
Guide for use:	Level 4 ethnic group, 1 ethnicity only. (Prioritized prior to reporting to HWIP.)		
Verification rules:	Valid code set value only.		

3.1.2. Employment

3.1.2.1 Employment start date

Definition:	The date that the employee was contracted to start.		
Source standards:			
Data type:	Date	Representational class:	Full Date
Field size:	**Max: 10**	Representational layout:	DD/MM/YYYY
Data Domain			
Guide for use:			
Verification rules:	Must be a valid date		

3.1.2.2 Employment end date

Definition:	The date that the employees contract ended.		
Source standards:			
Data type:	Date	Representational class:	Full Date
Field size:	**Max: 10**	Representational layout:	DD/MM/YYYY
Data Domain			
Guide for use:			
Verification rules:	Must be a valid date		

3.1.2.3 Entry source

Definition:	Defines the entity associated with the employee's employment before their present employment.		
Source standards:	HWIP Code Set		
Data type:	Alphanumeric	Representational class:	Code Set
Field size:	**Max: 3**	Representational layout:	ANN
Data Domain			
Guide for use:			
Verification rules:	Must comply with the HWIP Code Set.		

3.1.2.4 Exit source (destination)

Definition:	Defines the entity associated with the employee's employment following their departure from the organisation.		
Source standards:	HWIP Code Set		
Data type:	Alphanumeric	**Representational class:**	Code Set
Field size:	**Max: 3**	**Representational layout:**	ANN
Data Domain			
Guide for use:			
Verification rules:	Must comply with the HWIP Code Set.		

3.1.2.5 Reason for leaving

Definition:	This classification reflects the primary or main reason for an employee's departure from an organisation. Reasons for Leaving are a hierarchical classification centred around predominate reasons for departure.		
Source standards:	HWIP Code Set		
Data type:	Numeric	**Representational class:**	Code Set
Field size:	**Max: 2**	**Representational layout:**	NN
Data Domain			
Guide for use:			
Verification rules:	Must comply with the HWIP Code Set.		

3.1.2.6 Paid employment status

Definition:	Employment status reflects the concept of: the expected duration of a worker's employment relationship. Employment status differs conceptually from other definitions of employment status, which provide more volume-related measures of expected employment delivered.		
Source standards:	HWIP Code Set		
Data type:	Numeric	**Representational Class:**	Code
Field size:	**Max: 2**	**Representational layout:**	NN
Data Domain	1 – 99		
Guide for use:			
Verification rules:			

3.1.2.7 Total contracted hours

Definition:	The total number of annual contracted hours the employee is legally required to provide through their employment.		
Source standards:			
Data type:	Numeric	**Representational Class:**	Value
Field size:	**Max: 4**	**Representational layout:**	NNNN
Data Domain	0 – 9999		
Guide for use:	Just the raw data as hours, HWIP will convert to FTE.		
Verification rules:			

3.1.2.8 Total paid hours

Definition:	The total number of hours the employer has paid the employee during the previous 3 months.		
Source standards:			
Data type:	Numeric	**Representational Class:**	Value
Field size:	**Max:** 6	**Representational layout:**	NNNNNN
Data Domain	0 – 999999		
Guide for use:			
Verification rules:			

3.1.2.9 Total accrued hours

Definition:	The total number of hours the employee has accrued during the previous three months.		
Source standards:			
Data type:	Numeric	**Representational Class:**	Value
Field size:	**Max:** 4	**Representational layout:**	NNNN
Data Domain	0 – 9999		
Guide for use:	Accrued hours mimics the adjustment made by employers within their financial systems to monthly accrue outstanding employee remuneration.		
Verification rules:			

3.1.2.10 Sick leave hours

Definition:	Total sick leave hours taken (please sum all sick leave for the employee, including those taken to care for dependents, sick leave without pay, discretionary sick leave, hospital requested sick leave) during the previous three months.		
Source standards:			
Data type:	Numeric	**Representational Class:**	Value
Field size:	**Max:** 3	**Representational layout:**	NNN
Data Domain	0 – 999		
Guide for use:	Should include all sick leave taken regardless of if or how it has been paid. Round to the nearest hour.		
Verification rules:			

3.1.2.11 Annual leave entitlement

Definition:	The total basic annual leave entitlement, in hours, as stated in the employment contract.		
Source standards:			
Data type:	Numeric	**Representational Class:**	Value
Field size:	**Max:** 3	**Representational layout:**	NNN
Data Domain	0 – 999		
Guide for use:	Round to the nearest hour, for example, if a MECA says 200 hours, and an employee works 0.5 FTE, then this figure should show as 100 hours.		
Verification rules:			

3.1.2.12 Annual leave balance

Definition:	The total annual leave balance, in hours, remaining at the end of the quarter.
Source standards:	

Data type:	Numeric	**Representational Class:**	Value
Field size:	**Max:** 6	**Representational layout:**	NNNNNN

Data Domain	0 – 999999
Guide for use:	Round to the nearest hour.
Verification rules:	

3.1.2.13 Annualized base salary

Definition:	Annualized base salary – the contracted amount the employer would pay the employee annually if the employee was to work 2086 hours (1.0 FTE) per year.
Source standards:	

Data type:	Numeric	**Representational Class:**	Value
Field size:	**Max:** 6	**Representational layout:**	NNNNNN

Data Domain	
Guide for use:	In the majority of cases, this will be the relevant salary value specified in the collective agreement that determines the individual's salary (i.e. their Pay Derived Document). This may also include additional allowances that become part of an individual's base salary, such as Merit or Professional Development Recognition Programme (PDRP) payments under the NZNO Nursing and Midwifery MECA. For Resident Medical Officers (RMOs), whose Pay Derived Document is either the RDA or STONZ MECA, this should be the Category F salary (40-44.9 hours per week) relevant to their role and year, regardless of the number of hours they are contracted for. Where the Pay Derived Document specifies a divisor other than 2086 for the individual's role, such as for Dental Therapists under the PSA Allied, Public Health and Technical MECAs, then the reported salary should be the 2086 divisor rate. These are listed in the Appendices of the MECAs and can be calculated by dividing the salary by the related divisor to generate an hourly rate and multiplying that by 2086. Similarly, when staff employed under the PSA Northern Clerical MECA are on a 37.5 hour salary rate, they should be reported at the equivalent 40 hour salary rate for their Level and Step. This can also be calculated by dividing their salary by 1950 for an hourly rate then multiplying by 2086. For non-derived IEA salaries, the salary should be rounded to the nearest $10,000. To ensure privacy, the maximum value for any non-derived IEA salaries should be $100,000. The reported salary should not be less than the equivalent of the legislated minimum wage, which can be calculated by multiplying the minimum wage by 2086.
Verification rules:	Multiplying the hourly rate by 2086 should produce the same figure.

3.1.2.14 Pay derived document

Definition:	The document (union led or otherwise) from which their pay is derived.		
Source standards:			
Data type:	HWIP Code set	**Representational Class:**	Code set
Field size:	**Max: 2**	**Representational layout:**	NN
Data Domain	0-99		
Guide for use:	List of unions or IEA		
Verification rules:	Must comply with HWIP Code set value only.		

3.1.3. Union

3.1.3.1 Union membership

Definition:	The name of the union which the employee is a member of.		
Source standards:			
Data type:	Alphabetic	**Representational Class:**	Free Text
Field size:	**Max: 20**	**Representational layout:**	A(20)
Data Domain			
Guide for use:			
Verification rules:			

3.1.4. Role

3.1.4.1 ANZSCO

Definition:	Statistics New Zealand, "ANZSCO - Australia New Zealand Standard Classification of Occupations V1.2", Statistics New Zealand, 2013		
Source standards:	HWIP Code Set. http://www.stats.govt.nz/surveys_and_methods/methods/classifications-and-standards/classification-related-stats-standards/occupation.aspx		
Data type:	Numeric	**Representational Class:**	Code
Field size:	**Max: 6**	**Representational layout:**	NNNNNN
Data Domain	0 – 999999		
Guide for use:	The Australian New Zealand Classification of Occupations is a skills based classification system. The reader is directed to Statistics New Zealand's Australian New Zealand Classification of Occupations V1.2, 2013		
Verification rules:	Valid code set value only.		

3.1.4.2 Job title

Definition:	This is a free text field, which may be used to further describe the actual occupation.		
Source standards:			
Data type:	Alphanumeric	**Representational class:**	Free Text
Field size:	**Max**: 100	**Representational layout:**	AN(100)
Data domain:			
Guide for use:	Please ensure the job title is sufficiently descriptive, e.g., Team Leader, Physiotherapy		
Verification rules:			

3.1.4.3 DHB common chart of accounts occupation

Definition:	DHBs are required to collect their financial information according to a common chart of accounts. Within the chart of accounts are codes (Level 4) for allocating occupation.
Source standards:	HWIP Code Set. MoH – National Service Framework Library (NSFL), see website link below: http://nsfl.health.govt.nz/accountability/financial-standards-and-guidelines/common-chart-accounts

Data type:	Numeric	**Representational Class:**	Code
Field size:	**Max: 7**	**Representational layout:**	NNNNNNN

Data Domain	2005000 – 2832999
Guide for use:	May also be presented as a four digit code beginning with a '2'
Verification rules:	Valid code set value only.

3.1.4.4 Primary area of work

Definition:	Where the employee's majority of hours are worked.
Source standards:	HWIP Code Set. Area of service, based on UK NHS groups

Data type:	Numeric	**Representational Class:**	Code
Field size:	**Max: 4**	**Representational layout:**	NNNN

Data Domain	0101 - 1701
Guide for use:	In order to analyse the staffing component of multidisciplinary departments an area of service grouping has been devised based on the new area of work code set developed by the UK NHS. Our code set is the concatenation of 17 primary and 118 secondary codes that rolls up into 49 departments. The 118 area of work codes can be used to map to departments.
Verification rules:	Must comply with HWIP code set value only.

3.1.5. Registration

3.1.5.1 Registration authority unique identifier number (membership number)

Definition:	The Registration Authority defined membership number (unique identifier)
Source standards:	

Data type:	Alphanumeric	**Representational Class:**	Identifier
Field size:	**Max: 12**	**Representational layout:**	

Data Domain	
Guide for use:	Identifiers from multiple sources may be recorded as required, for example: (a) Responsible Authority number(s); and (b) ACC Provider number. There may be multiple identifiers collected for any individual. Together, the following data elements make up one complete identifier: a) Source Person Identifier b) Assigning Source
Verification rules:	Valid code set value only

3.1.5.2 Practitioner scope of practice

Definition:	A code identifying the type of scope of practice that is applied to a practitioner under the Health Practitioners Competence Assurance Act, 2003.		
Source standards:	https://www.health.govt.nz/system/files/documents/publications/10006-hpi-codeset-v1-2.pdf		
Data type:	Alphabetic	Representational class:	Code
Field size:	**Max**: 4	Representational layout:	A(4)
Data domain:			
Guide for use:			
Verification rules:	Valid code set value only.		

3.1.7. Education

3.1.6.1 Country of first professional qualification

Definition:	The country the employee gained their first professional qualification **relevant** to their **current position**		
Source standards:	http://www.stats.govt.nz/surveys_and_methods/methods/classifications-and-standards/classification-related-stats-standards/country.aspx		
Data type:	Numeric	Representational class:	Code Set
Field size:	**Max: 4**	Representational layout:	NNNN
Data Domain	0000-9999		
Guide for use:			
Verification rules:	Must comply with Statistics New Zealand's Standard Classification of country 1999 Numeric, V12.0", 2014 as documented in the HWIP code set.		

3.1.6.2 Year of first professional qualification

Definition:	The year the employee gained their first professional qualification **relevant** to their **current position**		
Source standards:			
Data type:	Numeric	Representational class:	Code Set
Field size:	**Max: 4**	Representational layout:	NNNN
Data Domain	1930 onwards		
Guide for use:	Where possible this year should be for the first professional qualification (the year they received their results to say they had qualified) relevant to their **current position** but where this is not possible then the year of their first professional qualification/registration should be used.		
Verification rules:			

Appendix A: Vacancy data collection

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Vacancy information is submitted on a separate spreadsheet, sent out at the same time as the standard quarterly reporting, using the three variables shown below:

Variable	Definition
Job title (area of work)	This is the main descriptor for the vacancy occupation allocation. Often referred to as "area of work" in ER vacancy collections it is also accurate to call it "Job title". This needs to be a clear descriptor of the job; i.e. not "Team leader" but rather "Team leader - occupation therapy" or "Occupational Therapist", or other descriptive texts. (NOTE: This is not the same as the "Primary Area of Work" variable in the HWIP submission - it is coincidental that the titles are similar.)
ANZSCO	This is the variable that is used more often to analyse the workforce so an accurate ANZSCO code is extremely helpful. (See the ANZSCO Codes tab, in the spreadsheet, for a list of the codes and groups used.)
Contracted FTE	This is the sum of all contracted FTE figures for all the vacancies covered under the job title or ANZSCO codes The Contracted FTE definition says that 2086 annual hours is 1.0 FTE. (This may not reflect some occupation specific local policies, but it does allow for inter-DHB analysis.)

The definition of a vacancy is as follows:

1. An unfilled position that has funding allocated and will be actively recruited for within the next six months.
2. It is a permanent position that is part of the FTE allocation (if applicable).
3. Where a vacancy exists, it remains a vacancy when temporarily filled.

To help with the interpretation of this definition a number of FAQs are listed below:

Q. Why do we need to change the current definition we use in our organisation?

A. Under the current arrangements in DHBs there is no universal definition for recording vacancies. This creates uncertainty when making direct comparisons between different DHBs.

Q. Operationally we do not have FTE allocations only funding application. What should we do?

A. The way that certain DHBs operate their services means that they have the flexibility to determine FTEs and do not have pre-determined FTE allocations (excluding Management/Administration staff which have an FTE cap in all DHBs). In these instances a vacancy exists where a permanent FTE position has been identified as necessary to deliver services and the position has not been permanently filled.

Q. Do employees on long-term sick leave or maternity leave create vacancies?

A. These are not vacancies as these are instances of 'situational' leave and the employee is still a permanent employee of the relevant organisation.

Q. Does recruiting to a fixed term appointment still leave a vacancy?

A. Yes. Fixed term positions, including locums, are still considered to represent a vacancy as they are temporary in nature. It is expected an employer would plan to recruit a permanent employee if necessary.

Q. What about work carried out by contractors or staff from contract labour agencies?

A. This work still represents a vacancy because contracting work is temporary in its nature.

Q. We have funding for a short term work program in this year's funding allocation but do not need to recruit for at least another six months. Is this classed as a vacancy?

A. Recording vacancies should be a measure of the current situation at the time of data collection.   This example is not a vacancy since recruitment will not actively occur for at least six months and the position is not permanent.

Appendix B: Abbreviations

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Term	Definition
A	Alphabetic
ACC	Accident Compensation Corporation
AN	Alphanumeric
ANZSCO	Australia and New Zealand standard Classification of Occupations
DHB	District Health Board
DHBSS	District Health Boards' Shared Services
ER	Employment relations
FTE	Full Time Equivalent
HISO	Health Information Standards Organisation (MoH)
HWIP	Health Workforce Information Programme
IEA	Individual Employment Agreement
ISO	International Organisation for Standardisation
MECA	Multi-Employer Collective Agreement
N	Numeric
NFSL	National Service Framework Library
UK NHS	United Kingdom National Health Service