

# DHB Health Workforce Information Programme (HWIP) Coding Guidelines

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## Purpose

This paper aims to explain and assist good quality DHB HWIP coding within the quarterly submissions, with particular emphasis on ANZSCO coding. It is intended to be used by those who code DHB staff, those who provide data in the HWIP quarterly Workforce Information submission and also for users who are involved in workforce analysis and planning.

There are currently a number of common problems across the HWIP collection that we have identified and are detailed in this paper. They can easily be addressed and this paper outlines each of these and how to amend them.

The reason we are focussing on ANZSCO is that this is one of the key variables used when identifying occupations for extraction and analysis, when responding to data requests. This section of the paper is written with the intent to make the coding process as straight forward as possible by providing clear best practice guidelines.

## The most common problems

There are a range of common problems with the coding of DHB employees for the HWIP quarterly return. The list below shows some of the most common errors:

- 1. Data completeness.** E.g. missing data
- 2. Data entries that do not follow the correct data specification.** E.g. text entries in numeric fields
- 3. Data entries provided where there is, in fact, no data.** E.g. 'NULL', 'missing', '#VALUE' is stated where data is unavailable. Please provide all mandatory data. If no data is required leave the cell blank
- 4. Data entries in free text fields that do not follow prescribed formats.** E.g. Responsible Authority Membership numbers follow prescribed formats (as identified by the Responsible Authorities covered under the HPCA Act 2003) but are not adhered to
- 5. Data entries that are obviously wrong.** E.g. Year of Birth is reported as the present year
- 6. Misinterpretation of how data variables should be reported.** E.g. Paid FTE reported as Contracted FTE, Sick Leave reported in days not hours
- 7. Ambiguous or generic job titles.** E.g. 'SMO' rather 'Anaesthetist', 'Dermatologist' etc.
- 8. Incorrect variable combinations, specifically the Common Chart of Accounts (CCoA), ANZSCO codes and Job Title combinations** E.g. 'RMO' CCoA code combined with 'SMO' ANZSCO code, with a vague/generic Job Title such as 'Medical Officer'
- 9. Changes in ANZSCO coding of an employee over different quarterly submissions where no evidence of a change in job has occurred.**
- 10. Obsolete or discontinued data variables are used.** E.g. ANZSCO 234512 / Anatomist or Physiologist (discontinued from September 2013)

The quarterly submission variable format requirements are provided in the self analysis template for easy reference when completing your submission. They are also provided here.

Extract from the self analysis template

<u>Variables:</u>	<u>Must use code table?</u>	<u>Details:</u>
Unique Employee Identifier	NO	This needs to be a unique value and must be populated for every row. It can be either <b>TEXT</b> or <b>NUMERIC</b> .
Facility of Usual Employment	YES	This must be populated for each row. It must be in <b>NUMERIC</b> form not <b>TEXT</b>
Entry Source	YES	This should be populated for each new employee, not necessary for all employees. It should be three (or one) characters long in <b>TEXT</b> format.
Employment Start Date	NO	This should be populated for each row. It should be in <b>DATE</b> format, not <b>NUMERIC</b>
Exit Source	YES	This should only be populated for employees leaving employment during the reported quarter. It should be in three (or one) characters <b>TEXT</b> format.
Employment End Date	NO	This should be populated for each leaving employee. It should be in <b>DATE</b> format, not <b>NUMERIC</b>
Reason for Leaving	YES	Should be populated for each leaving employee. It should be in 2 digit <b>NUMERIC</b> format.
Year of Birth	NO	This should be populated for each row. It should be in four digit <b>NUMERIC</b> format not <b>DATE</b> format.
Registration Authority Membership Number	NO	Ideally this would be populated for each row where relevant. It can be in either <b>TEXT</b> or <b>NUMERIC</b> format.
Scope of Practice	YES	Ideally this would be populated for each row where relevant. It must be in 4 character <b>TEXT</b> format.
Job Title	NO	Ideally this would be populated for each row. It should be in <b>TEXT</b> format.
DHB Common Chart of Accounts Occupation	YES	This should be populated for each row. It should be in 7 digit <b>NUMERIC</b> format only.
Sex	NO	This should be populated for each row. It should be in <b>TEXT</b> format only.
Ethnicity	YES	This should be populated for each row. It should be in 5 digit <b>NUMERIC</b> format only.
Employment Status	YES	This should be populated for each row. It should be in 1 digit <b>NUMERIC</b> format or two character <b>TEXT</b> format only.
Union Membership	NO	Ideally this would be populated for each row where relevant. It should be in <b>TEXT</b> format.
Iwi Affiliation	YES	Ideally this would be populated for each row where relevant. It should be in <b>NUMERIC</b> format.
Total Contracted Hours (annum)	NO	This must be populated for each row. It must be in <b>NUMERIC</b> format.
Total Hours Paid (calculated over previous 3 months)	NO	Ideally this would be populated for each row where relevant. It should be in <b>NUMERIC</b> format.
Total Hours Accrued (calculated over previous 3 months)	NO	Ideally this would be populated for each row where relevant. It should be in <b>NUMERIC</b> format.
ANZSCO Code	YES	This must be populated for each row. It must be in 6 digit <b>NUMERIC</b> format only.
Country of first professional qualification	YES	This should be populated for each row, especially for new employees. It should be in <b>NUMERIC</b> format.
Year of first professional qualification	YES	This should be populated for each row, especially for new employees. It should be in <b>NUMERIC</b> format.
Annualized Base Salary	NO	This should be populated for each row, especially employees under contract. It should be in <b>NUMERIC</b> format.
Pay Derived Document	YES	This must be populated for each row. It should be in <b>NUMERIC</b> format.
Annual Leave Entitlement	NO	This should be populated for each employee under contract. It should be in <b>NUMERIC</b> format.
Annual Leave Balance	NO	This should be populated for each employee under contract. It should be in <b>NUMERIC</b> format.
Sick Leave (calculated over previous 3 months)	NO	This should be populated for each employee under contract. It should be in <b>NUMERIC</b> format.
Primary Area of Work	YES	This must be populated for each row. It should be in <b>NUMERIC</b> format.

## Illustrative Examples

Below are two fictional employee records. One is from DHB 'A', the other from DHB 'B'. The DHB 'A' demonstrates entries with common errors and provides the reasons why they are incorrect entries. The DHB 'B' illustrates an example of good quality coding. Please note not all 29 HWIP variables are shown in the examples, those variables not shown have been entered correctly.

### DHB 'A' - example with errors

Header/Comments	EmployeeNum	FacilityOfUsual Employment	EntrySource	EmploymentStart Date	ExitSource	Employment End Date	ReasonForLeaving	YearOfBirth	RegistrationAuthority Membership Number	PractitionerScope of Practice	Job Title	DHB Common Chart of Accounts Occupation	ANZSCO	CountryOfFirst professional qualification	YearOfFirst professional qualification	Annualized Base Salary	PAOW
<b>HWIP Expected Variable Format</b>	DHB Specific format			Format: dd/mm/yyyy		Format: dd/mm/yyyy		Numeric format: yyyy (e.g. 1972)			DHB Specific format					The actual pro-rata base salary figure for union derived salaries or nearest \$10k (capped at \$100,000) for IEAs	
<b>Mandatory / Optional</b>	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
<b>Worked Example</b>	1044		Z99	18/02/1973	Z99	22/01/2108	unknown	2016	APDV12345*	ZZZZ	SENIOR MEDICAL OFFICER	9730	253999			108250	605

DHB Employee ID information has been placed in the Worked Example Row. All data entry should start at row 6 otherwise it will not get loaded and will be rejected

Missing mandatory data

Some DHBs use the code Z99 (**Unknown or Unidentified**) as a default response. This has no analytical value. Providing an accurate source is required.

If the data is unknown the field should be left blank

Incorrect format for Registration Authority Membership Number. (MCNZ = NNNNN)

Generic Job Title. Please use a more descriptive job title. E.g. "Anaesthetist" or "SMO - Anaesthetist"

If using a generic ANZSCO codes e.g. in this example "Medical Practitioners nec" **you must enter** a descriptive job title in the Job Title field

Salary not annualised. The contracted hours are 1043. The annualised salary should be 216,500

Missing mandatory data

The primary area of work values need to be four digits long. Use the formula =TEXT(CELL, "0000") to set it correctly.

Incorrect date provided

Current year entered, not the year of birth

Incorrect entry. A correct practitioner Scope of Practice code is required for employees regulated under the HPCA Act 2003. This employee is a Senior Medical Officer so 'ZZZZ' is an incorrect code

Incorrect CCoA code

### DHB 'B' – example with best practice good quality coding

Header/Comments	EmployeeNum	FacilityOfUsual Employment	EntrySource	EmploymentStart Date	ExitSource	Employment End Date	ReasonForLeaving	YearOfBirth	RegistrationAuthority Membership Number	PractitionerScope of Practice	Job Title	DHB Common Chart of Accounts Occupation	ANZSCO	CountryOfFirst professional qualification	YearOfFirst professional qualification	Annualized Base Salary	PAOW
<b>HWIP Expected Variable Format</b>	DHB Specific format			Format: dd/mm/yyyy		Format: dd/mm/yyyy		Numeric format: yyyy (e.g. 1972)			DHB Specific format					The actual pro-rata base salary figure for union derived salaries or nearest \$10k (capped at \$100,000) for IEAs	
<b>Mandatory / Optional</b>	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
<b>Worked Example</b>	12345	1234	A01	25/02/2014	N00	26/02/2014	43	1968	CCX4567	NCRN	Registered Nurse - Paediatric	2210	254424	2102	1989	65432	605
	32295	4311	A21	16/06/2008	A04	19/02/2016	44	1949	12345	MCPA	Pathologist	2005	253915	1101	1979	216500	0202

1. The Worked Example row has been left intact.
2. Every field has been completed accurately in the right format with correct data entries (e.g. not entries that read the equivalent of 'unknown' or 'undefined')
3. All the data fields **across** the employee record are consistent. For example the CCoA code, ANZSCO code, Registration Authority Membership number, Practitioner Scope of Practice Code, Annualised Base Salary, Primary Area of Work all match up.

## Reference Documents

The key documents that provide all the details required to complete the HWS/HWIP quarterly submissions are listed below:

- HWIP Base Data – Dataset Standard
- HWIP Base Data - Code set
- HWIP Self Analysis Template

Each document can be found at the following website:

<http://centraltas.co.nz/strategic-workforce-services/health-workforce-information-programme-hwip/>

## ANZSCO coding

### Job title to ANZSCO coding guidelines

One of the key reporting variables in HWIP is the ANZSCO code and associated ANZSCO description. The reason for this is that the ANZSCO code is the starting point for all/the majority of our analysis/data requests. The remainder of this paper, therefore, focusses on allocating ANZSCO codes correctly.

If you need to allocate or change an ANZSCO code, the following information will guide you on how to define what that code should be. This is a detailed process so you may not follow it completely, but it provides the full process that would be expected when first allocating an ANZSCO code to a job title.

### How to find the correct ANZSCO code and ANZSCO description

The paragraphs and diagram below describe how to match a job title to an ANZSCO code/description using manual coding methods.

The sources of information for manually identifying an ANZSCO code/description are:

- job title; Common Chart of Accounts Code; Scope of Practice (if applicable);
- job description (if available);
- The on-line Australian and New Zealand Standard Classification of Occupations (ANZSCO, First Edition version 1.2, 2013); which is available on the Australian Bureau of Statistics website.

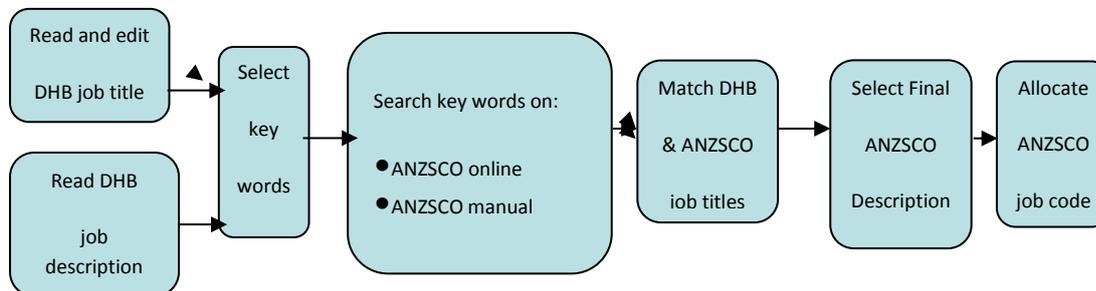


Figure 1: Manual process for allocating job titles to ANZSCO code and ANZSCO description

### Sequence

1. Read and edit the job title by checking it for obvious problems. Remove plurals, e.g. nurses becomes nurse. Remove multiple job titles, e.g. Enrolled Nurse/Registered Nurse becomes the most appropriate e.g. Registered Nurse. Remove advertising jargon such as “Supremo” from “Nurse Supremo” and in **all job titles where appropriate**, add more descriptive descriptions. So “Nurse” becomes “Registered Nurse – Paediatrics”. If the job title is vague such as “Team Leader”, add details of what field they are a team leader in e.g. “Team Leader – Physiotherapy”.
  - Please **do not** enter the following as job titles (or any possible spelling variations)
    - Parental Leave
    - Maternity Leave
    - Leave
    - LWOP
    - Overpayments
    - Govt accr
    - Individual invoices

2. Where job description information is available; read this looking for information about job tasks, qualifications, registration, experience, requirements of the job, and key words.
3. Select the *key words* from the job title and job description to help identify the correct ANZSCO code and ANZSCO description.
4. Use the key words to search the ANZSCO online lists (Australian Bureau of Statistics) to provide suggestions for ANZSCO coding.
5. Use the ANZSCO online lists to assist you if you want further suggestions for coding. The ANZSCO online lists have information about the requirements of the ANZSCO code and ANZSCO description; such as job title, qualifications, registration, experience, requirements of the job, and key words.
6. Using the original job title and job description try to identify the correct ANZSCO code by matching the job title to the ANZSCO descriptions available in the ANZSCO manual or online ANZSCO dictionary.
7. After identifying the correct ANZSCO code and description there are two options for the next step. One, if the job title is unambiguous use the ANZSCO code and description identified. Two, if the job title is ambiguous, that is to say that it could be associated with more than one ANZSCO code and description change the ANZSCO description to the **closest** ANZSCO occupation taking into account any other relevant HWIP data variables that may assist in making the correct decision (such as CCoA, Scope of Practice etc.).
8. If the job title and/or job description are ambiguous or the job description simply does not provide enough information to satisfactorily classify the occupation then either:
  - Consult with the relevant personnel in the DHB (e.g. service managers, recruitment personnel) to retrieve further information to make an informed decision and/or
  - Contact the HWIP analysts at DHBSS for further advice
9. Each ANZSCO description has a corresponding numerical ANZSCO code. Once an ANZSCO description is selected, the associated ANZSCO code can be identified.
10. This is the code to be submitted in the HWIP quarterly return.

## Common problems with ANZSCO coding

The common problems with ANZSCO coding are ambiguous job titles, dual job titles, coding of managerial jobs, the role of qualifications and incompatibility with other HWIP data variables in the employee record.

### Ambiguous job titles

Please use specific job title descriptions for employees. A common job title description seen in the HWIP quarterly submissions is 'SMO'. When combined with a more generic ANZSCO code, such as '253399: Specialist Physicians nec' it provides limited analytical value. In this example it is not possible to identify the vocational scope of practice the Senior Medical Officer is regulated to practise under. A more descriptive job title of 'Palliative Medicine Specialist' has much greater analytical value.

### Coding dual title occupations

If an employee is working part-time in two (or more) different roles please report the employee with two (or more) separate employee records.

## The role of qualification requirements

A job title cannot be coded to a professional occupation if the job description does not require the qualifications associated with that profession. For example, if a job description for a qualified Pharmacist does not include the statutory minimum qualifications or the need for a current annual practising certificate, as specific by the Pharmacy Council of New Zealand, then the job title of Pharmacist has been assigned in error. Check ANZSCO to see whether experience can replace the required qualification, as ANZSCO is specific about when experience can replace qualifications.

### *Worked Example:*

To code a job title in the Social Worker category (272511), the job description must require applicants to have a recognised qualification in social work. Otherwise the job title can be coded as a Community Worker (411711). Community Worker is an example of an occupation where 3 years experience can replace the required qualification. If the job description does not specify the experience required then the Social Worker or Community Worker must be coded to one of the categories under Personal Carers and Assistants (423), depending on the wording of the job description.

## Coding of Managerial job titles?

If the job title mentions the word Manager in the title and the job requirements include managerial functions (such as planning, staff supervision, budgeting, co-ordination and monitoring) code to the relevant managerial occupation code, for example Medical Superintendent - 134211, Nursing Clinical Director – 134212 and Health and Welfare Services managers nec - 134299.

If the job title is ‘...Manager’, do not automatically code the job within the Health and Welfare Services Managers (1342) section. Read the job description first, where possible, to enable a more informed decision.

Sometimes job titles are inflated. For example a Nurse Manager may be in the job title but if you read the job description carefully it may only require supervision rather than management.

There is no specific ANZSCO code for an Assistant Manager, Supervisor or Team Leader. The role may be coded to a managerial role **only if there are clearly defined managerial duties described in the job description**. Otherwise it should be coded to the specific occupation/profession.

Job descriptions for Contract Manager/Administrator/Coordinator are usually not managerial positions, with the exception of a Medical Administrator (134211). As a rule, if they require a specialist degree or diploma code to the relevant professional or associate professional/technician or other occupational classification.

A Project Manager should be coded to Program or Project Administrator (511112) unless it is clear they are specialized, such as ICT Project Manager (135112).

## Common job title and incorrectly assigned ANZSCO codes

The table below describes a number of common (descriptive) job titles which are assigned to incorrect ANZSCO codes on a regular basis. The table describes the job title, the incorrect ANZSCO and the **correct ANZSCO to be assigned**.

DHB Job Title	Incorrect ANZSCO Code/Description	Correct ANZSCO Code/Description	Comments
MRT (Medical Radiation Technologist)	251212 - Medical Radiation Therapist	251211 - Medical Diagnostic Radiographer	This is the most common incorrectly coded job title / occupation. For clarity  - MRT/Medical Radiation Technologists -> Use 251211 - Medical Diagnostic Radiographer - RT/Radiation Therapist -> Use 251212 - Medical Radiation Therapist - Nuclear Medicine Technologist-> Use 251213 - Nuclear Medicine Technologist
Medical Radiation Technologist	251212 - Medical Radiation Therapist	251211 - Medical Diagnostic Radiographer	
Echsonographer	251214 - Sonographer	311212 - Cardiac Technician	Sonographer (251214) is the ANZSCO code for those employees who meet the scope of practice definition and qualification requirements to be registered with a Sonographer Scope of Practice as recognised by the Medical Radiation Technologist Board except those Sonographers who have a restriction of Cardiac Ultrasound. If an employee was issued with a Sonographer APC with a condition of practice stating they 'Must practise within Cardiac Ultrasound only', for the purposes of ANZSCO coding, they should be given the ANZSCO description of Cardiac Technician (311212). Where the employee was issued with a Sonographer APC with a condition other than Cardiac Ultrasound, please use the ANZSCO code Sonographer (251214) but clearly state in the HWIP job title field the restriction, e.g. "Sonographer – must practise within Vascular Ultrasound only"  <b>Please note:</b> For Cardiac Physiologists if their CCoA code is
Echocardiographer	251214 - Sonographer	311212 - Cardiac Technician	
Cardiac Physiologist	251214 - Sonographer	311212 - Cardiac Technician	
Cardiac Sonographer	251214 - Sonographer	311212 - Cardiac Technician	

			2464 (technologist) they get coded to the scientific group Medical Laboratory Scientists (234611), but where the CCoA is for a technician (2508) they get coded to Cardiac Technician (311212)
MOSS	253112 - Resident Medical Officer	Any other Medical Practitioner ANZSCO starting with 253	To be able to accurately distinguish Medical Officers (not Specialists) the CCoA code 2015 must be used.
M.O.S.S	253112 - Resident Medical Officer	Any other Medical Practitioner ANZSCO starting with 253	
Clinical Physiologist	234512 - Anatomist or Physiologist (acceptable prior to Sep 2013)	311299 - Medical Technicians nec (Sep 2013 onwards)	<b>234512 - Anatomist or Physiologist</b> is the correct ANZSCO code for Clinical Physiologists prior to the September 2013 quarterly return. The code was discontinued by the Australian Bureau of Statistics 26 June 2013. From September 2013 onwards the <b>311299 - Medical Technician nec</b> should be used.
Clinical Physiologist Technician	234512 - Anatomist or Physiologist (acceptable prior to Sep 2013)	311299 - Medical Technicians nec (Sep 2013 onwards)	
Phlebotomist	311299 - Medical Technicians nec	311216 - Pathology Collector (AUS) / Phlebotomist (NZ)	
Intelligence Analyst	Any of the following: 224412 - Policy Analyst 224712 - Organisation and Methods Analyst 225112 - Market Research Analyst 261111 - ICT Business Analyst 261112 - Systems Analyst 263113 - Network Analyst	224411 - Intelligence Officer	
Clinical Analyst		224411 - Intelligence Officer	
Health Analyst		224411 - Intelligence Officer	
Information Analyst		224411 - Intelligence Officer	
Data Analyst		224411 - Intelligence Officer	
Any job title containing "Co-ordinator"	Any managerial (Skill Level 1) ANZSCO codes starting with 1	Assign the ANZSCO code to what field they are a Co-ordinator or Team Leader in e.g. "Team Leader – Physiotherapy". Should be assigned the ANZSCO code	In the context of ANZSCO coding, "MANAGERS plan, organise, direct, control, coordinate and review the operations of government, commercial, agricultural, industrial, non-profit and other organisations, and departments." In the DHB context this means employees assigned with an ANZSCO code
Any job title containing "Team Leader"	Any managerial (Skill Level 1) ANZSCO codes starting with 1		

		for Physiotherapist (252511)	beginning with a 1 are usually tier 2 or 3 managers.
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