



# ICD-10 mortality coder training

## About ICD-10

The International Statistical Classification of Diseases and Related Health Problems 10th revision (ICD-10) is the international standard for the coding of diseases and other health issues for morbidity and mortality reporting. It is managed by the World Health Organization.

Coded data using ICD-10 are used for public health research and epidemiological studies at the population level. This data may be used to assess the efficacy of public health interventions, to pinpoint and access specific information and literature, and to inform managerial decision-making.

## About mortality decision tables

The mortality decision tables are contained within the United States National Centre for Health Statistics (NCHS) Medical Mortality Data System (MMDS).

Although originally designed for use with the automated coding, MMDS Automated Classification of Medical Entities (ACME) decision tables are also useful for assisting coders to understand causal relationships and applying mortality coding rules in manual coding.

Using MMDS decision tables ensures consistent application of the selection and modification rules across jurisdictions and assists with the provision of comparable cause of death data nationally and internationally.

Version 4 of the Iris automated coding software used components of the MMDS of the NCHS. Version 5 of the Iris software uses the Multicausal and Unicausal Selection Engine (MUSE). MUSE operates based on internationally agreed decision tables which are based on the most recent version of ICD-10.

## About this course

This course is offered to meet the needs of mortality coding staff working in healthcare or civil registration offices that use the ICD-10 health classification system. Participants should already have basic knowledge in the use of ICD-10 but may need more information and hands-on skills in mortality coding using MMDS mortality decision tables.

The standard international curriculum for coding education was developed by the World Health Organization's Family of International Classifications Network Education Committee, and is the basis for this course.

## Course aims and objectives

Coding of mortality data is one of the major tasks of health ministries, hospitals and national statistical data collectors. Coded mortality data are used at facility, provincial, national and international levels to describe health status. Coded data describe major causes of death and help to identify potential prevention and public health strategies.

This course is conducted with the objective of improving the knowledge and skills of the participants in ICD-10 mortality coding using mortality decision tables.

## Course outcomes

Course participants will be able to:

- Understand and use basic ICD-10 coding conventions
- Interpret and apply the World Health Organization's new rules for mortality coding
- Use MMDS mortality decision tables to apply mortality coding rules and select underlying cause of death.

## Intended audience

The intended audience are practitioners (eg demographers, statisticians, epidemiologists) who have responsibility for generating fertility and mortality estimates from the CRVS system. Such people may be employed by the National Statistics Office, universities (eg from population or health programs who could incorporate some of this course into their programs), the Ministry of Health or the institution responsible for CRVS (eg Ministry of Internal Affairs).

The participation of people with routine responsibility for generating estimates of completeness is vital to ensure that countries are appropriately employing appropriate methods. Post-training follow-up and supervision will be provided to enable the incorporation of methods into countries' monitoring and evaluation of their CRVS systems.

At a minimum, participants should be familiar with basic fertility and mortality measures (eg have used life tables), be proficient with Excel and ideally a stats program such as Stata or SPSS. Some participants may have experience using indirect methods to estimate fertility and mortality. Materials can be provided to students to read prior to the commencement of the course.

## Teaching modes

- For those with previous basic ICD-10 experience, the mortality coding skills training course will be offered as a 5 day intensive block. A 10 day course is offered for those who haven't had any exposure to ICD-10 before.
- The program's teaching mix is diverse and stimulating and includes: lectures, practice exercises and individual coding exercises.

## Language

The language of instruction is English. Participants need proficiency in spoken and written English to enable full participation in the program, and in particular, contribution to class discussions.

## Course inclusions

### Materials, facilities and resources

Each participant is provided with a set of ICD-10 work and answer books containing a variety of materials for the training course. These will provide a valuable reference resource following completion of the course.

### Course materials

- World Health Organization, International Statistical Classification of Disease and Related Health Problems, Tenth Revision, Volumes I, II, III, Geneva: WHO.
- A comprehensive, English language medical dictionary
- ICD-10 work and answer books
- MMDS mortality decision tables (hard or soft copy). If soft copies are used, each participant will need to have access to a personal computer during the training.

## Course units

- UNIT 1: Introduction to ICD-10 structure and principles of classification
- UNIT 2: Volume 1, Tabular list
- UNIT 3: Volume 3, Alphabetical index
- UNIT 4: Basic coding guidelines
- UNIT 5: Overview of morbidity coding
- UNIT 6: Mortality Coding - Unit 6.1 Overview of mortality coding; International Form of MCCOD; concept of underlying cause of death; selection and modification rules; selecting the underlying cause of death. Unit 6.2 Coding exercises.
- UNIT 7: Certain infectious and parasitic diseases
- UNIT 8: Neoplasm
- UNIT 9: Diseases of the blood and blood-forming organs, & certain disorders involving the immune mechanism
- UNIT 10: Endocrine, nutritional and metabolic diseases
- UNIT 11: Mental and behavioural disorders
- UNIT 12: Diseases of the nervous system
- UNIT 13: Diseases of the eye and adnexa
- UNIT 14: Diseases of the ear and mastoid process
- UNIT 15: Diseases of the circulatory system
- UNIT 16: Diseases of the respiratory system
- UNIT 17: Diseases of the digestive system
- UNIT 18: Diseases of the skin and subcutaneous tissue
- UNIT 19: Diseases of the musculoskeletal system and connective tissue
- UNIT 20: Diseases of the genitourinary system
- UNIT 21: Pregnancy, childbirth and the puerperium
- UNIT 22: Certain conditions originating in the perinatal period
- UNIT 23: Congenital malformations, deformations and chromosomal abnormalities
- UNIT 24: Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified
- UNIT 25: Injury poisoning and certain other consequences of external causes and external causes of morbidity and mortality
- UNIT 26: Factors influencing health status and contact with health services

## Course formats

### For experienced ICD-10 coders - 5 days

Days 1-2: Units 1-4

Days 3-5: Unit 6

### For new ICD-10 coders - 10 days

Days 1-2: Units 1-4

Day 3: Units 7, 9, 10, 11

Day 4: Units 8, 12, 13

Day 5: Units 14, 15, 16, 17, 23

Day 6: Units 20, 21, 25

Day 7: Units 22, 23, 19, 24, 18

Days 8-10: Unit 6

The program partners on this initiative include: The University of Melbourne, Australia; CDC Foundation, USA; Vital Strategies, USA; Johns Hopkins Bloomberg School of Public Health, USA; World Health Organization, Switzerland.

Civil Registration and Vital Statistics partners:



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