

## **International Training and Certification Program: A Regional Approach**

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### Abstract

Health information is the basis for identification of needs, health planning and development and evaluation of prevention programs; it is essential for public health action. Mortality and morbidity data coded with the *International Statistical Classification of Diseases* are used for all of these important health-related activities. The production of high quality, consistent and timely coded health data on which so many decisions are based requires a competent, well-trained coder workforce.

The WHO Family of International Classifications (WHO-FIC) Education Committee and its Joint Collaboration with the International Federation of Health Records Organizations have established an **International Training and Certification Program (ITCP)** to improve the quality of coded health data and to support the coder workforce, which is critical to data quality.

Drawing on a cadre of dedicated international experts, the Joint Collaboration has laid the groundwork and piloted the processes for an ITCP for underlying cause-of-death ICD-10 Coders and Trainers. A complementary process is under development for morbidity coders, including an exam to test morbidity coder skill levels. Components of the program include:

- core curricula to train coders who use the *International Statistical Classification of Diseases (ICD)* for mortality and morbidity coding,
- core curriculum for certifiers of cause-of-death
- Web-based Training Tool for ICD-10 coders and certifiers of cause-of-death based on the core curricula
- procedures to review and certify training materials,
- an international underlying cause-of-death exam
- processes to assess and approve qualified trainers, and
- processes to assess and recognize the competence of coders

Curriculum modules also have been developed for training in the *International Classification of Functioning, Disability and Health (ICF)*, the other WHO reference classification, and an introductory eLearning Tool for ICF is undergoing testing and will be finalized in 2010.

In addition to the products mentioned above, the following materials also are available:

## IFHRO 2010

- Information Sheets on uses of mortality and morbidity data and related classification topics, which can be easily updated, translated and adapted for country use
- IFHRO Education modules for basic health information management practice
- Checklist for Implementation of WHO-FIC members at country level

The Joint Collaboration is now prepared to offer a package of materials to the WHO Regional Offices and IFHRO Regional Directors to advance the ITCP. The JC proposes a collaboration that will improve the skills and status of the international health information management workforce, including mortality and morbidity coders, and support health information system development on a global basis. This paper will describe the resources available from the Joint Collaboration and will suggest possible ways forward.

## Introduction

Health information is the basis for identification of needs, health planning and policy development and evaluation of outcomes; it is essential for program management and public health action. Mortality and morbidity data coded with the *International Statistical Classification of Diseases* are used for all of these important health-related activities. The production of high quality, consistent and timely coded health data on which so many decisions are based requires a competent, well-trained coder workforce. This workforce needs to be integrated into a functioning health information system.

A Joint Collaboration (JC)<sup>1</sup> between the WHO Family of International Classifications (WHO-FIC) Education Committee and the International Federation of Health Records Organizations (IFHRO) began in 2000 and was officially endorsed by the WHO-FIC Network and IFHRO General Assembly in 2004. The JC has established an **International Training and Certification Program (ITCP)** to improve the quality of coded health data and to support the coder workforce, which is critical to data quality. Drawing on a cadre of dedicated international experts, the Joint Collaboration has laid the groundwork and piloted the processes for an ITCP for underlying cause-of-death ICD-10 Coders and Trainers. A complementary process is under development for morbidity coders, including an exam to test morbidity coder skill levels. This collaboration is continuing with the newly created WHO-FIC Education and Implementation Committee (EIC), a merger of two separate committees that was approved by the Network in 2010. Components of the ITCP include:

- core curricula to train coders who use the *International Statistical Classification of Diseases (ICD)* for mortality and morbidity coding,
- core curriculum for certifiers of cause-of-death
- Web-based Training Tool for ICD-10 coders and certifiers of cause-of-death based on the core curricula
- procedures to review and certify training materials,
- an international underlying cause-of-death exam
- an international morbidity coding exam (in development)
- processes to assess the competence of coders and trainers
- processes to recognize qualified underlying cause-of-death coders and trainers

Curriculum modules also have been developed for training in the *International Classification of Functioning, Disability and Health (ICF)*, the other WHO reference classification, which describes the lived experience of functioning and social participation in the context of diseases and other health conditions that are classified in ICD. An introductory eLearning Tool for ICF is undergoing testing and will be finalized in 2010.

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<sup>1</sup> Members of the Joint Collaboration are Cassia Maria Buchalla (Brazil), Christine Sweeting (UK, retired), Huib ten Napel (The Netherlands) and Sue Walker for the WHO-FIC Network and Joon H. Hong (Korea), Marcie MacDonald (Canada) and Margaret Skurka (USA) for IFHRO. Marjorie Greenberg (USA) is an ex-officio member.

In addition to the products mentioned above, the following materials are available from the WHO-FIC Network to support health information systems development:

- Information Sheets on uses of mortality and morbidity data and related classification topics, which can be easily updated, translated and adapted for country use
- Six IFHRO Education modules for Basic Health information Management Practice
- Checklist for Implementation of WHO-FIC members at country level

## **Needs Assessment**

Needs assessment questionnaires for ICD-10 mortality and morbidity coders were circulated to WHO Regional Offices and Collaborating Centers for distribution to the member states in 2004. A paper describing the findings was published in the *Journal of the Health Information Management Association of Australia* in 2006.<sup>2</sup> The survey findings supported the need for an International Training and Certification Program for ICD-10 mortality and morbidity coders and have guided its development. They confirmed the lack of standardization of coder training, the relatively low status of coders in some countries and the need for continuing education. The importance of a well-trained health information workforce has only increased since the needs assessment was conducted, especially with many countries around the world now promoting the implementation of electronic health records<sup>3</sup>.

The Joint Collaboration is now prepared to offer a package of materials to the WHO Regional Offices and IFHRO Regional Directors to advance the ITCP. The JC proposes a collaboration that will improve the skills and status of the international health information management workforce, including mortality and morbidity coders, and support health information system development on a regional and global basis. The JC also recognizes the work being done by many other organizations (e.g., Health Metrics Network, Health Information Systems Knowledge Hub, Centers for Disease Control and Prevention) to enhance health information systems and improve mortality, morbidity and disability data and seeks a partnership with these efforts.

This paper describes the resources available from the Joint Collaboration and suggests possible ways forward.

## **Resources**

### *Core Curricula and approved training materials*

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<sup>2</sup> Walker S. (2006) Capturing Health Information – A Perspectives Paper, *Journal of the Health Information Management Association of Australia*, 35(3):13-22

<sup>3</sup> The collaborative arrangement signed by WHO and the International Health Terminology Standards Development Organization in July 2010 will link the WHO Family of International Classifications and the Standardized Nomenclature of Medicine – Clinical Terms (SNOMED-CT) , enabling the linkage of terminologies and classifications.

The Joint Collaboration developed core curricula for ICD-10 mortality and morbidity coders, which were the basis of a call for training materials issued in early 2005. Training materials from Korea, Australia, Sri Lanka and the United States subsequently have been recognized by the JC as meeting the standard for Underlying Cause of Death coder training in several knowledge clusters. During 2006, the Education Committee developed a core curriculum and best practices for training certifiers of cause of death. All three core curricula are posted on the Education Committee web site: [http://www.cdc.gov/nchs/icd/nacc\\_education\\_committee.htm](http://www.cdc.gov/nchs/icd/nacc_education_committee.htm).

### Web-based Training Tool

The core curricula serve as the framework for the ICD-10 Web-based Training Tool developed by WHO between 2007 – 2010 with significant participation by the Education Committee and Joint Collaboration. The tool has undergone multiple reviews by the Network, a field test and an external review by the American Health Information Management Association. It is posted on the WHO website at: <http://www.who.int/classifications/icd/implementation/en/index.html> The Education Committee has established a Training Tool Support Group to support users and oversee annual updates to the tool. The tool is designed as a self-study course with exercises; provides an overview of ICD-10 mortality and morbidity coding; focuses on each of the chapters in ICD, as well as the certification of cause-of-death; and covers other critical areas such as confidentiality and ethics and statistical presentation. It serves as a benchmark for country-based training and can serve as a pre-requisite for any in-person training courses.

### International Underlying Cause-of-Death Exam

The JC has developed a rigorous international exam for underlying cause-of-death coders to promote the production of high quality, consistent and timely coded health data, recognize the necessary expertise to produce high quality data and promote coding as a profession. The JC also is developing a cadre of recognized trainers to be available to provide ICD-10 training within their own countries and within other countries. Five successful pilots of the exam were conducted in Canada, Korea, United States and United Kingdom in 2007 and 2008<sup>4</sup> and led to the awarding of certificates to 60 coders, 19 coder/trainers, as well as seven honorary certificates for international expert trainers who helped develop the exam. The certified trainers represent an international resource as several are available to conduct ICD-10 training courses. Standardized procedures have been developed for administering and scoring the exam, in conjunction with the Joint Collaboration, wherever there are interested candidates and organizations, and work currently is underway to refresh and expand the question bank. A comprehensive evaluation of the exam and certification processes can be found on the Education Committee website.

### Information Sheets

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<sup>4</sup> The Japan Hospital Association translated and managed the exam process but conducted this project solely as a trial for information purposes, with no intentions of awarding certificates to those who sat for the exam. The Mexican Collaborating Centre also translated and administered the exam but did not award certificates.

The EC has developed a series of short documents for implementers and users of WHO classifications. These Information Sheets can be easily updated, placed on the web and translated. Because they are in the public domain, countries and collaborating centres can adapt them to meet local needs. The intended purposes of these high-level overviews are education, communication and promotion of best practices. Information Sheets on the following topics were approved by the EC during 2010:

- WHO-FIC – IFHRO Joint Collaboration
- What You Should Know about Clinical Documentation – Acute care hospitals
- Uses of Coded Clinical Data
- Mortality (Cause-of-Death) Data
- Civil Registration and Vital Statistics
- International Classification of Functioning, Disability and Health (ICF)
- International Statistical Classification of Diseases (ICD)

#### *IFHRO Education Modules for Basic Health Records Practice*

The International Federation of Health Records Organizations has developed a set of education modules for basic health records practice as a resource for developing health record educational programs or departments in healthcare organizations and as educational tools for established programs and departments. There currently are six modules, all of which have been posted to the IFHRO website ([www.ifhro.org](http://www.ifhro.org)) under the Learning Center. The current modules cover the following topics:

- The Health Record
- Patient identification, registration and the master patient index
- Record identification systems, filing and retention of health records
- Healthcare statistics
- Planning a health record department
- Administration and Management of the Health Record Department

A new module on the Electronic Health Record is under development and will be available later in 2010.

#### *WHO-FIC Implementation Checklist*

The WHO-FIC Implementation Committee has developed a Checklist for implementation of WHO classifications on a country level, based on the practical experience of members and WHO-FIC Collaborating Centres. The checklist covers:

- Reasoning for implementation of classifications
- Strategy
- Necessary steps
- Necessary materials
- Potential groups and persons to be involved
- Education
- Organization issues

- Resources

The EIC hopes to collect information on experiences in using the checklist.

### ICF Educational resources

The International Classification of Functioning, Disability and Health (ICF) was approved as the second WHO Reference Classification in 2001. The WHO-FIC Network maintains both the ICD and ICF and promotes their implementation and use in member countries throughout the world. Development of educational materials for the ICF has been on a parallel track with those for ICD-10. This work is being carried out in collaboration with the Network Functioning and Disability Reference Group (FDRG). ICF Curriculum Modules have been developed by the EC and FDRG and are the framework for an Introductory self-learning tool under development by the German Collaborating Centre/ICF Research Branch and WHO, with participation and review by the EC, JC and FDRG. The tool was field tested during March – August 2010 and will be available for use by the end of 2010. Plans are underway to develop additional advanced and specialized modules of the learning tool. The ICF is a multipurpose classification system designed to serve various disciplines and sectors – for example in education and transportation as well as in health and community services – and across different countries and cultures. Together, information on diagnosis plus functioning provides a broader and more meaningful picture of the health of people or populations, which can then be used for decision-making purposes.<sup>5</sup>

The WHO-FIC Network also is working with WHO on an International Classification of Health Interventions and an International Classification of Traditional Medicine.

### **Why a Regional Approach?**

The mandate to improve health and health information systems and the implementation of WHO-FIC Classifications is global. The mission of the WHO-FIC Network is to improve health through the ongoing development, maintenance and promotion of an integrated suite of health classifications and related products that produce information of value and utility across the world. However, health and functioning are influenced by a wide range of social determinants that often are best understood and addressed at the local and regional levels. Language, geography and culture impact the implementation and organization of health care and health information systems and their sustainability. While international standards are the fundamental building blocks of health information systems, they must be implemented, and often adapted, to the local context. Also, the organization of the World Health Organization, the WHO-FIC Network of collaborating centres and IFHRO are all based on a regional concept. This facilitates education, dissemination of best practices and technical assistance. For these reasons, the Joint Collaboration is pursuing a regional approach to advancing the goals of the International

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<sup>5</sup> World Health Organization 2001. The International Classification of Functioning, Disability and Health (ICF). Geneva: WHO. <http://www.who.int/classifications/icf/en/>, p.4.

Training and Certification Program and will build on existing regional structures.

The JC also recognizes a number of related activities that are focusing their efforts at both a global and a regional level:

- Health Metrics Network<sup>6</sup>  
The Joint Collaboration has liaised with the Health Metrics Network (HMN) since the latter's inception in 2005. The recently approved HMN MOVE-IT Strategy will harness information technology in a drive to improve systems to manage pregnancies, record births, deaths and causes of death and enhance measurement of progress towards the health related Millennium Development Goals. These priorities, which recognize that civil and vital events registration systems lie at the heart of a sound and viable national health information system, are fully aligned with the priorities of the WHO-FIC Network and Joint Collaboration. While the HMN Framework and assessment tools have global relevance, work is being conducted in selected low and low-middle income countries.
- Health Information Systems Knowledge Hub<sup>7</sup>  
The Health Information Systems (HIS) Knowledge Hub was established by AusAID in 2008 at the School of Population Health, University of Queensland, Brisbane, Australia to contribute to the quality and effectiveness of Australia's engagement in the health sector in the Asia Pacific region. The HIS Knowledge Hub works with global and regional organizations to facilitate the development and integration of health information systems and local capacity to ensure that cost-effective, reliable and relevant information is available and used to better inform health development policies across the region. Developing methods to improve cause-of-death data has been a major focus of the Hub. Another focus is strengthening and expanding the HIS workforce. Both of these foci are well aligned with the ITCP.
- Centers for Disease Control and Prevention<sup>8</sup>  
The U.S. Centers for Disease Control and Prevention, through its National Center for Health Statistics (NCHS), is developing a new project to improve vital registration and statistics systems in developing countries. Work already has been initiated in Africa. The assistance to countries will include ICD-10 cause-of-death coder training (drawing on experts recognized by the Joint Collaboration) and, in some cases, the installation of automated coding software. The latter is the focus of an International Collaborative Effort (ICE) on Automating Mortality Statistics<sup>9</sup> established by NCHS in 1996 with the goals of sharing knowledge and experience of automated systems for coding mortality information, developing and improving existing automated systems

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<sup>6</sup> <http://www.who.int/healthmetrics/en/>

<sup>7</sup> <http://www.uq.edu.au/hishub/>

<sup>8</sup> <http://www.cdc.gov/>

<sup>9</sup> [http://www.cdc.gov/nchs/nvss/ice\\_automation.htm](http://www.cdc.gov/nchs/nvss/ice_automation.htm)

through collaboration and establishing mechanisms for technical support for automated systems. The first ICE plenary made recommendations that led to the establishment of the International Training and Certification Program. Eurostat has supported the development of IRIS, software that is designed to facilitate the use of NCHS automated mortality coding systems in non-English speaking countries, and supports implementation in the European region. Use of automated systems based on internationally approved decision tables can make a significant contribution to comparability of mortality data.

## **Conclusion**

The regional approach to implement the International Training and Certification Program for ICD-10 mortality and morbidity coders and to support implementation of the WHO Reference Classifications and robust health information systems was discussed within the WHO-FIC Education Committee and Joint Collaboration with IFHRO and with the IFHRO Executive Board during meetings in Cologne, Germany and Brussels, Belgium in February 2010. Further discussion took place during the October 16-22, 2010 WHO-FIC Network Annual Meeting in Toronto, Canada, where the WHO Regional Advisors were in attendance, and will be held at the November 15-19, 2010 IFHRO 16<sup>th</sup> Congress in Milan, Italy, where regional meetings will be organized to consider next steps. Partnerships also will be sought with international and national organizations sharing the ITCP commitment to improve the skills and status of the international health information management workforce, including mortality and morbidity coders, and support health information system development on a regional and global basis.