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WORLD HEALTH ORGANIZATION

MEETING OF WHO COLLABORATING CENTRES FOR THE FAMILY OF INTERNATIONAL CLASSIFICATIONS

Cologne, Germany
19-25 October 2003

Title: Subgroup on Training and Credentialing: A Status Report, 2002-2003 and Future Plans

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Purpose: For information and discussion

Recommendations:

- Adopt the new Terms of Reference for the Subgroup, as finalized and presented by the Subgroup in Cologne
- Commit to development of an overall integrated Training Strategy for the WHO Family of International Classifications
- WHO work with Regional Offices and respective collaborating centres to develop training plans consistent with the overall strategy

Abstract: (no more than 200 words)

The Subgroup on Training and Credentialing of the WHO FIC Implementation Committee was established at the 1999 meeting of Heads of Collaborating Centres and has held meetings at the 2000, 2001 and 2002 Collaborating Centres meetings. In order to increase its productivity, a three-day meeting was held in Washington, D.C., on March 31 - April 2, 2003, preceded by several international conference calls. Representatives of seven countries, PAHO and the International Federation of Health Record Organizations (IFHRO) participated in the Washington, D.C. meeting, the objective of which was to progress work on an international training and credentialing program for ICD-10 mortality and morbidity coders. A proposal for such a program had been developed by the Subgroup in 2000 and endorsed in principal by IFHRO. During the meeting, the participants revised the proposal, as well as a document on definitions, skill levels and functions for coders and nosologists. Work also was begun on a core curriculum for coders, with an initial focus on coders of underlying cause of death.

These documents have been enhanced for further discussion at the annual meeting of Collaborating Centres in October 2003, where work will begin on creating an international examination for underlying cause coding. In addition, a revised needs assessment questionnaire for ICD-10 coders is being developed and will be fielded in late 2003. The Subgroup Chair also participated in meetings in Leiden, The Netherlands, and St. Louis, Missouri, to discuss the ICF work plan for the WHO FIC Implementation Committee. Based on these discussions, the Terms of Reference for the Subgroup have been revised to incorporate development of a Training Strategy for both ICD-10 and ICF.

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Introduction

The Subgroup on Training and Credentialing of the WHO FIC Implementation Committee was established at the 1999 meeting of Heads of Collaborating Centres as part of the ICD-10 Implementation Committee. The Subgroup has held meetings at the 2000, 2001 and 2002 Collaborating Centres meetings, as well as a separate three-day meeting in 2003. Communication between meetings has been by e-mail and occasional conference calls. In accordance with terms of reference established in 1999, a number of activities were carried out during 1999 – 2003. Questionnaires were developed and circulated and results compiled on ICD-10 mortality and morbidity training materials and training capacity. These results were presented at the 2000 and 2001 annual meetings of Collaborating Centres and are posted on the North American Collaborating Center home page (**http://www.cdc.gov/nchs/about/otheract/icd9/nacc.htm**). Needs assessment questionnaires for ICD-10 mortality and morbidity medical coders were also developed and circulated to regional offices and collaborating centres in 2002; preliminary results were reported at the 2002 annual meeting of collaborating centres. The Subgroup developed a proposal for an international training and credentialing program for ICD-10 mortality and morbidity coders, which was accepted in principle by the International Federation of Health Record Organizations (IFHRO) at its 13th Congress and quadrennial meeting in 2000. A Joint Work Group was established with IFHRO and held its first meeting at the 2001 annual meeting of collaborating centres. Participation by IFHRO in the Joint Work Group has been primarily through current members of the Subgroup and a staff member of the American Health Information Management Association; thus the Work Group and Subgroup have continued to meet together. In support of an international training and credentialing program, documents were drafted on Definitions, Skill Levels and Functions for mortality and morbidity coders. All aspects of the Subgroup's terms of reference were reviewed during the working sessions at the 2002 annual meeting of collaborating centres (Attendee list is Attachment 1), and discussions were initiated to integrate training and credentialing issues for the International Classification of Functioning, Disability and Health into the Subgroup's terms of reference and work plan. Informal working meetings held during 2003 addressed both ICD and ICF training issues. These meetings were organized in recognition of the limited time available during the annual meeting to progress work on the Subgroup's work plan.

This paper provides a status report of the Subgroup's activities since the 2002 Brisbane meeting (see (see 2002 meeting report at: **http://www.aihw.gov.au/international/who_hoc/hoc_02_papers/brisbane103.doc**). and proposes new terms of reference for the Subgroup. The paper also suggests directions for the coming year.

ICD-10 Mortality and Morbidity Training

During the 2002 Brisbane meeting, it was agreed that a separate meeting of the Subgroup should be organized to take advantage of participation by a number of members in the April 2003 meeting of the International Collaborative Effort (ICE) on Automating Mortality Statistics in Washington, D.C. A three-day meeting was organized for March 31 - April 2 to progress work on an international training and credentialing program for ICD-10 mortality and morbidity coders. This meeting provided the opportunity to address all of the components of the Subgroup's ICD-10 work plan (see below). A Planning group for the meeting (Attachment 2) held two conference calls and organized the agenda (Attachment 3) and

background materials. The full meeting report can be found at **http://www.cdc.gov/nchs/about/otheract/icd9/nacc_subgroup.htm.** The Subgroup Chair reported on the meeting outcomes at the ICE meeting the following week and received positive feedback from the participants.

Definitions, Skill Levels and Functions of Coders

A full review and revision of the document describing Definitions, Skill Levels and Functions of coders and nosologists was undertaken. An important change to the document was inclusion of a list of training needs for each type of coder. The document, which has separate sections for underlying cause-of-death coder/nosologist, multiple cause-of-death coder/nosologist and morbidity coder/nosologist, serves to identify the qualifications and tasks for each position and distinguishes between them as well. It also may be considered a record of core competencies. It was decided that credentialing will be limited to intermediate and advanced level coders, though the skills and functions of entry level coders and nosologists also were included in the document. The revised draft document is contained in Attachment 4.

International Training and Credentialing Proposal

The Subgroup revisited the original proposal to establish an international training and credentialing program for mortality and morbidity coders. It was agreed to delete nosologists from the program, although they are still referenced as important. Three phases were agreed. The first international credential will be established for underlying cause mortality coders. The second phase is the development of an international credential for morbidity coders reflecting the WHO standard for morbidity coding as defined in Volume 2 of ICD-10; it was decided that a separate phase for morbidity secondary conditions coding was not necessary. The third phase credentials the multiple cause mortality coders; however, work on this credential cannot commence until all participating countries approve international rules for multiple cause coding. It was recognized that the Mortality Reference Group could be a mechanism for bringing about consistency in multiple cause rules. As more and more countries use the same automated systems, it will be easier to achieve international consensus and comparability. The Subgroup identified that many countries do not use the WHO standards that already exist for mortality and morbidity coding as specified in Volume 2 of ICD-10. Attachment 5 contains the revised proposal.

Needs Assessment Questionnaires

Needs assessment questionnaires for mortality and morbidity coders were finalized and translated by PAHO into Spanish, French and Portuguese in early 2002. The Subgroup circulated the questionnaires in English and the other three languages to the six Regional Advisors and the Collaborating Centres by e-mail in the summer of 2002. Preliminary results from the questionnaires were discussed at the 2002 meeting in Brisbane. The response rate was quite low, and it was clear that several respondents misinterpreted a few of the questions. In Brisbane, the Chair agreed to follow-up non-responders and clarify existing responses, after receiving feedback from Subgroup members on revisions to the questionnaires. However, during the conference calls of the Planning Group for the 2003 Washington, D.C., working meeting, it was agreed that the two questionnaires should be reviewed during the working

meeting before being circulated further. Following this review, two participants agreed to revise the questionnaires based on the experience of surveys done in Australia and UK. The goal was to simplify them, align them better with the goals and strategies of the Subgroup and facilitate data analysis. The draft revised documents are contained in Attachments 6 and 7 and are being circulated to the entire Subgroup for comments before being finalized for translation and distribution. A decision will have to be made about gathering the new information from countries that responded to the earlier versions of the questionnaires. The Group meeting in Washington, D.C., recommended that the questionnaires be distributed to every country where ICD is used, whether or not ICD-10 has been implemented. This should be coordinated with the WHO FIC Implementation Committee.

Educational Needs/Core Curriculum

During the Brisbane meeting, the Subgroup had spent some time brainstorming requirements for a core curriculum for coders. This is considered an essential component for the international training and credentialing program. The participants in the 2003 working meeting revisited and expanded the "Initial Thoughts Regarding Educational Needs for Coders" developed in Brisbane. The group agreed that many of the requirements, possibly as much as 80-90%, are similar for both mortality and morbidity coders. However, because the initial credential will be for underlying cause-of-death coders, this was the focus of the expanded document. Following the meeting, further work was done on the draft document, which can be found in Attachment 8. Subgroup members also have developed a draft document on educational needs for morbidity coders, contained in Attachment 9. It should be noted that the curricula and related training materials need to remain dynamic, in order to reflect changes in technology, medical knowledge and coding procedures. Processes for continuous updating must be explored.

The Subgroup discussed the possibility of having one set of training materials organized by modules, packaged as a WHO product, and certified and made available by IFHRO. By having it in modules, this would allow those who wish to sit for the exam only to go through certain ones as necessary. The Subgroup concluded the format should be paper-based and made available by post. Internet based on-line availability was also suggested.

Updating and Review of Current Training Materials

The Planning Group had recommended deferring the update of information posted on the Subgroup Home Page regarding training materials and capacity until after the working meeting. Meeting participants recommended that once the core curricula are approved by the full Subgroup, the existing training materials should be evaluated against them to identify coverage and gaps. Proprietors of training materials will be requested to update the information on training materials previously submitted and to complete a form on the extent to which individual products cover the topics in the core curricula. Additional questions should be added about whether the training materials include the latest international updates and how continuing education and professional development are conducted. This can take place following the 2003 annual meeting in Cologne.

Development of brochure

The Subgroup previously had discussed developing a brochure about the Subgroup's inventory of training materials and capacity for persons who do not have access to the Internet. In Brisbane, this concept was expanded to include information more broadly about the Subgroup's activities, as well as about the Collaborating Centres network. A separate paper, "Supporting the International Coding Community Through Standardized Education and Credentialing Programs: Getting the Message Through", is being prepared by the Australian Centre for discussion at the Cologne meeting.

Credentialing Exam

The participants in the Washington, D.C., working meeting suggested that Subgroup members be asked to bring sample exams to the Cologne meeting to begin work on drafting an international exam for underlying cause of death coding. Several Subgroup members are preparing a paper on "The Benefits of Developing and Providing an Examination to Credential Clinical Coders" for discussion at the Cologne meeting.

Next steps

Following the Washington, D.C., meeting, the IFHRO representative and the Subgroup Chair communicated with the current IFHRO Chair about the further work of the Subgroup and the plan to present all revised documents to the IFHRO Executive Committee at the October 9-14, 2004 14th IFHRO Congress in Washington, D.C. The IFHRO Chair expressed continuing interest and support for the International Training and Credentialing Program and invited a representative of the Subgroup to meet with the Executive Committee at its next meeting on October 1-3 near Rochdale, UK. It also is hoped that the IFHRO Chair can participate in the Subgroup's meetings in Cologne.

ICF Training

As already indicated, the Subgroup agreed, in principle, during the Brisbane meeting, to integrate ICF training issues into the Subgroup's future work plan. A number of ICF experts attended the Subgroup's first working session in Brisbane and expressed interest in contributing to this effort. However, it was not possible for these individuals to attend the 2003 working meeting in Washington, D.C., and thus no ICF issues were covered at that time. Two additional meetings regarding ICF Implementation took place during 2003, where these issues were discussed briefly. The first was in Leiden, the Netherlands, on May 1, 2003, in conjunction with the meeting of the Planning Group for the 2003 annual meeting in Cologne. During the Leiden meeting, the importance of training as a component of ICF implementation was confirmed; further, participants recognized the value of cross-fertilization between ICD and ICF experts on training approaches. The second occasion was an informal meeting of the WHO FIC Implementation Committee in St. Louis, MO, on June 19-20, 2003, where participants identified topics for an international work plan on ICF. These included the need

to collect information on current ICF training tools, to identify best practices and to develop an overall training strategy for ICF; the latter should address different types of users, including clinical coders and clinicians, and at different levels, and a train the trainers programs for international use. It is expected that these issues will be discussed at the 2003 annual meeting in Cologne, in conjunction with the WHO FIC Implementation Committee, and persons will be identified to help progress the work.

Revised Terms of Reference

In light of the discussions in Brisbane and meetings and conference calls during 2003, revised terms of reference have been drafted (Attachment 10). The terms incorporate all relevant sections of the 1999 terms and are consistent with the draft Terms of Reference for the WHO FIC Implementation Committee prepared by the WHO Secretariat. The revised terms of reference have been circulated to the full Subgroup for review and comment. The plan is to discuss, revise as necessary and approve these terms during the 2003 annual meeting and present them to the plenary for adoption.

The revised terms state that the purpose of the Subgroup is to "Assist and advise WHO in improving the level and quality of use of the WHO Family of International Classifications (WHO FIC) in Member States by developing a training and credentialing strategy for the WHO FIC, identifying best training practices and providing a network for sharing expertise and experience on training." Considerable work already has been undertaken towards a training and credentialing strategy for ICD-10, as documented above. In developing the ICF component and an integrated strategy, the following issues, at a minimum, should be addressed: Purposes, audiences/users, needs assessment, training approaches, core curricula, inventory of existing materials, evaluation of existing materials, best practices, gaps, training capacity, role of credentialing, resources and partnerships. Once the overall, high-level training strategy is agreed, it is recommended that WHO work with the Regional Offices and the respective collaborating centres to develop regional training plans that are consistent with the overall strategy.

Work Plan for 2003-2004

The Subgroup expects to hold two working sessions during the 2003 Collaborating Centres annual meeting to review activities and accomplishments during the past year, discuss papers, revise and approve documents and develop the work plan for the coming year. Participants in the Washington, D.C., meeting also considered it essential that a several day working meeting be scheduled in March-April 2004 to further progress work on the Proposal to Establish an International Training and Credentialing Program for Mortality and Morbidity Coders in preparation for the October 2004 IFHRO Congress. Priorities for 2003-2004 are likely to include:

- Translation and circulation of the revised needs assessment questionnaires and analysis of completed questionnaires
- Further elaboration of the Educational Needs documents
- Updating of the matrices on training materials and capacity in the context of the Educational Needs documents and identifying gaps

- Development of a brochure on the Subgroup's work
- Drafting an international exam for underlying cause-of-death coding
- Identifying approaches, in conjunction with WHO Regional Offices, for disseminating core modules and facilitating training for countries currently not covered by Collaborating Centres
- Development of a training strategy for ICF and an integrated training strategy for WHO FIC in collaboration with the WHO FIC Implementation Committee

Attachments

Attachment 1

Participants in Brisbane 2002 Sessions of Subgroup on Training and Credentialing

Marjorie Greenberg, North American Center, Chair
Mounkaila Abdou, AFRO RO
Catherine Barral, French Centre
Roberto Becker, PAHO
Niels Bentzen, WICC
Lynn Bracewell, UK Centre
Debbie Bradshaw, South Africa
Ron Casey, Australian Centre
Diane Caulfeild, NA Center
Y.C. Chong, WPRO
Pornarong Chotiwan, Thailand
Tora Dahl, Nordic Centre
Jingwu Dong, Chinese Centre
David Evans, Australia
Jim Fraser, New Zealand
Donna Glenn, NA Center
Peter Goldblatt, UK Centre
Oye Gureje, Nigeria
Jenny Hargreaves, Australia
Margaret Hazlewood, PAHO/WHO
Caroline Heick, NA Center
Andre L'Hours, WHO HQ
Donna Hoyert, NA Center
Moriyo Kimura, ICD Office, Japan
Nenad Kostanjsek, WHO HQ
Marijke de Kleijn, Dutch Centre
Susan Linacre, Australia
Rafael Lozano, Mexico
Ros Madden, Australian Centre
Manuel Mosquera, Venezuelan Centre
Lori Moskal, NA Center
Fujii Norio, Japan
Kristina Brand Persson
Paul Placek, NA Center
Remigijus Prokhorskas, European RO
Cleo Rooney, UK Centre
Christine Sweeting, UK Centre
Luis M. Torres Palacios
Sue Walker, Australian Centre
Garry Waller, Australian Centre
Shannon Watts, Australia
Anne Wellington, Australia
Patricia Wood, NA Center

Attachment 2

Members of Planning Group for March 31 – April 2, 2003 Subgroup Meeting

Amy Blum, Medical Classification Specialist, CDC/NCHS
Kathy Brouch, Manager, AHIMA, and IFHRO representative
Ron Casey, Director, Population and Social Statistics, Australian Bureau of Statistics
Donna Glenn, Branch Chief, MMCB, CDC/NCHS
Marjorie Greenberg, Chief, Classifications and Public Health Data Standards, CDC/NCHS
Christine Sweeting, Data Quality and Classifications Advisor, NHS Information Authority
Sue Walker, National Center for Classification in Health, Brisbane, Australia

Additional attendees at March 31 – April 2, 2003 Subgroup Meeting

Tyringa Ambrose, Medical Classification Specialist, CDC/NCHS
Dr. Roberto Becker, Regional Advisor on ICD, PAHO
Joyce Bius, Medical Classification Specialist, CDC/NCHS
Dr. Cassia Buchalla, Assessor on ICD, WHO Collaborating Center for FIC in Portuguese Dr.
Jaume Canela-Soler, Regional Advisor of Biostatistics, PAHO
Lars Age Johansson, Senior Statistician, Swedish National Board of Health and Welfare, Nordic Collaborating Center for the Classification of Diseases
Professor Ruy Laurenti, Head, WHO Collaborating Center for FIC in Portuguese
Traci Ramirez, Program Specialist, CDC/NCHS
Dr. Cleone Rooney, UK WHO Collaborating Center for FIC Office for National Statistics
Patricia Wood, Mortality Classification Specialist, Health Statistics Division, Statistics Canada

Attachment 3

Agenda
Subgroup on Training and Credentialing
WHO Family of International Classifications Implementation Committtee
Working Meeting
Hotel Washington, Caucus Room
Washington, D.C.
March 31 – April 2, 2003

Monday, March 31

9:00 a.m.	Welcome and Introductions Review of agenda and meeting objectives
9:30 a.m.	Discussion of scope (underlying vs. multiple cause, manual vs. automated systems, mortality vs. morbidity, etc.)
10:15 a.m.	Review and revision of documents on Definitions, Skills Levels and Functions for Certified Mortality Clinical Coders (Underlying Cause and Multiple Cause) and Certified Morbidity Clinical Coders
10:45 a.m.	Break
11:00 a.m.	Continuation of discussion of documents
12:00 p.m.	Lunch
1:00 p.m.	Review, revision and re-circulation of Needs Assessment questionnaires
3:00 p.m.	Coffee break
3:15 p.m.	Review and revision of Proposal to Establish an International Training and Credentialing Program for Mortality and Morbidity Coders and Nosologists
4:15 p.m.	Discussion of existing training materials
5:15 p.m.	Adjourn
6:00 p.m.	Group dinner

Tuesday, April 1

9:00 a.m.	Revisit Initial Thoughts Regarding Educational Needs for Coders
9:45 a.m.	Group topics into appropriate modules
10:45 a.m.	Coffee break
11:00 a.m.	Begin developing extended outline for each module for ICD-10 Underlying

	Cause Coders
12:00 p.m.	Lunch
1:00 p.m.	Continue work on outlines
3:00 p.m.	Coffee break
3:15 p.m.	Continue work on outlines
5:30 p.m.	Adjourn

Wednesday, April 2

8:00 a.m.	Resume work on outlines
10:00 a.m.	Discuss next steps on reviewing and finalizing outlines
10:45 a.m.	Coffee break
11:00 a.m.	Discuss plans for progressing work on core competencies and curriculum for multiple cause coders
12:00 p.m.	Lunch
1:00 p.m.	Discuss plans for progressing work on core competencies and curriculum for morbidity coders
2:00 p.m.	Presentation and discussion on emerging role of clinical coding as a health informatics profession
3:00 p.m.	Coffee break
3:15 p.m.	Discuss goals and agenda for October 2003 meetings in Cologne and second working meeting in Spring 2004

Attachment 4

DEFINITIONS, SKILL LEVELS, AND FUNCTIONS FOR UNDERLYING CAUSE OF DEATH CODER/NOSOLOGIST

The International Federation of Health Record Organizations (IFHRO) is working in conjunction with the World Health Organization's (WHO) Collaborating Centres for the Family of International Classifications Subgroup on Training and Credentialing to oversee credentialing examinations for medical coding personnel who wish to demonstrate an internationally recognized proficiency in the use of the International Statistical Classification of Diseases and Related Health Problems (ICD-10). Below are the definitions, skill levels and functions deemed necessary to sit for a credentialing examination in underlying cause coding. Each level does not necessarily apply to every type of system used. Various functions related to data preparation (e.g. data entry /data cleaning) may occur before coding is undertaken. At all levels, coders and nosologists adhere to the privacy principles of their country's respective ethical and legal framework.

CODING OF UNDERLYING CAUSE OF DEATH

Definition:

An underlying cause mortality classification coder assigns the ICD-10 code for the underlying cause of death on death certificates based on the rules of the ICD-10 as specified in Volume 2. These data become the source from which national and international mortality statistics are tabulated and compared.

Entry-level coder (trainee)

An entry-level underlying cause coder has the ability to read and comprehend a standard death certificate and to recognize and select the proper ICD-10 code for the underlying cause of death, based on international conventions for use of the ICD. S/he must demonstrate a capacity for accurately verifying coded work in compliance with complex instructions and rules. S/he exerts a high degree of discipline in adapting to the technical requirements of various classification activities and procedures. S/he must work towards a high rate of consistency and productivity. All work of a trainee should be subject to verification by a more experienced mortality classification coder before being released.

Intermediate level coder

An intermediate level underlying cause coder possesses all of the skills of an entry level coder. S/he is able to determine the underlying cause of death on more complex death certificates than an entry-level coder. S/he must accurately verify coded work in compliance with complex instructions and rules. S/he exerts a high degree of discipline in adapting to the technical requirements of various classification activities and procedures. S/he must maintain a high rate of consistency and productivity. Work of an intermediate level coder should be verified by an advanced coder periodically.

Advanced coder

An advanced level underlying cause coder possesses all of the skills of an intermediate level coder. An advanced level underlying cause coder has achieved a high level of expertise in the rules governing the assignment of the cause of death and in the interpretation and application of the ICD classification. S/he is able to train new mortality coders and participate in special projects and quality assurance on causes of death.

Nosologist

A nosologist has achieved a high level of expertise in the rules governing the assignment of the cause of death and in the interpretation and application of the current and previous revisions of the ICD classification. A nosologist should have an understanding of the intentions behind the ICD rules and guidelines. S/he is able to develop content for training programs, train new mortality coders and implement and oversee special projects on causes of death. A nosologist has the ability to implement revisions of the ICD, either major revisions or those resulting from the continuous updating process. Additionally, a nosologist has the ability to work collegially and supportively with statisticians in conducting special projects, in creating reports and in responding to inquiries related to cause-of-death information.

Skill levels (Qualifications):

Entry-level coder

An entry-level underlying cause coder should have the equivalent of a secondary school education and good reading skills. An entry-level coder must be able to consult source books and instructional manuals on the use of the ICD. S/he must be able to review medical books and technical journals to acquire familiarity with the etiology, symptoms and pathology of diseases.

Training needs and professional development: Anatomy and physiology and medical terminology and use of the ICD classification and conventions for underlying cause coding.

Intermediate level coder

An intermediate level underlying cause coder should have at least two years of experience coding death certificates. An intermediate level underlying cause coder should have successfully completed training in anatomy and physiology and medical terminology.

Training needs and professional development: Medical science including etiology, symptoms and pathology of diseases.

Advanced coder

An advanced underlying cause coder should be a credentialed intermediate level coder with at least five years of experience coding death certificates. S/he should demonstrate an ability to train others in ICD coding for underlying cause of death.

Training needs and professional development: Quality assurance techniques and presentation skills.

Nosologist

A nosologist has a detailed understanding of the history of ICD, its uses and its development. S/he has the ability to contribute to coding and classification policies and strategies at the national and international levels. A nosologist demonstrates expertise in application, interpretation and intentions of the classification.

Training needs and professional development: Exposure to the work of statisticians/epidemiologists with a view to possible collaboration in special studies. Presentation skills.

Functions:

Entry-level coder

Assigns the appropriate ICD code for underlying cause of death for death certificates that contain legible entries and use traditional terminology, that contain all required information, and that use terms for which there are specified codes and rules in the ICD. The coding should be supervised or verified by an experienced coder. Identifies the need to query certifier for clarification.

Intermediate level coder

Assigns the appropriate ICD code and ensures the appropriate code is assigned by others for underlying cause of death for certificates made more complex by, for example, the sequencing of the reported causes of death, the nature or manner of death or incomplete or imprecise information. Identifies the need to query certifier for clarification. Evaluates work of and assists the entry-level coder. Intermediate level coders are able to work independently without direct supervision

Advanced coder

Assigns the appropriate ICD code and ensures the appropriate code is assigned by others for underlying cause of death for certificates made more complex by, for example, the sequencing of the reported causes of death, the nature or manner of death or incomplete or imprecise information. Trains others in the use of ICD classification and conventions in underlying cause. Develops, performs or contributes to quality assurance programs and other special projects using coded data. Identifies the need to query certifier for clarification.

Nosologist

A nosologist responds to questions posed by peers nationally and internationally and is viewed as an expert with definitive knowledge of the procedures and techniques used to classify underlying cause of death.

S/he designs and conducts special studies that involve rule or code modifications that could influence changes in ICD coding practices, including updates and revisions to the classification, and national and international statistics. Such studies include projects where the comparability of classification between countries is examined or where different versions of the ICD or changes made to the classification are evaluated. These projects require recognition of problems and consistent interpretation of new and highly technical instructions for determining underlying cause of death. The nosologist consults clinical and other experts, including WHO Family of International Classifications Collaborating Centres, about the definition, recognition and coding of non-indexed conditions. Participates in implementing ICD changes resulting from major revisions and from the continuous updating process. Supports statisticians and epidemiologists in understanding and clarifying coding issues associated with special studies and responses to public inquiries.

DEFINITIONS, SKILL LEVELS, AND FUNCTIONS FOR MULTIPLE CAUSE OF DEATH CODER/NOSOLOGIST

The International Federation of Health Record Organizations (IFHRO) is working in conjunction with the World Health Organization's (WHO) Collaborating Centres for the Family of International Classifications Subgroup on Training and Credentialing to oversee credentialing examinations for medical coding personnel who wish to demonstrate an internationally recognized proficiency in the use of the International Statistical Classification of Diseases and Related Health Problems (ICD-10). Below are the definitions, skill levels and functions deemed necessary to sit for a credentialing examination in multiple cause of death coding. Each level does not necessarily apply to every type of system used. Various functions related to data preparation (e.g. data entry /data cleaning) may occur before coding is undertaken. At all levels, coders and nosologists adhere to the privacy principles of their respective country's ethical and legal framework.

CODING OF MULTIPLE CAUSE OF DEATH

Definition:

A multiple cause of death coder assigns the ICD-10 codes for the conditions listed on the death certificates based on the rules of the ICD-10 and internationally-agreed rules on multiple cause coding. These data become the source from which national and international mortality statistics are tabulated and compared.

Entry-level coder (trainee)

An entry level multiple cause coder has the ability to read and comprehend a standard death certificate and to recognize and select the proper ICD-10 code(s), for the conditions listed on the certificate based on established conventions for use of the ICD. S/he must demonstrate a capacity for accurately verifying coded work in compliance with complex instructions and rules. S/he exerts a high degree of discipline in adapting to the technical requirements of various classification activities and procedures. S/he must work towards a high rate of consistency and productivity. All work of a trainee should be subject to verification by a more experienced mortality classification coder before being released.

Intermediate level coder

An intermediate level multiple cause coder possesses all of the skills of an entry level coder. S/he is able to assign codes on more complex death certificates than an entry-level coder. S/he must demonstrate a capacity for accurately verifying coded work in compliance with complex instructions and rules. S/he exerts a high degree of discipline in adapting to the technical requirements of various classification activities and procedures. S/he must maintain a high rate of consistency and productivity. Work of an intermediate level coder should be verified by an advanced coder periodically.

Advanced coder

An advanced level multiple cause coder possesses all of the skills of an intermediate level coder. An advanced level underlying cause coder has achieved a high level of expertise in the rules governing the assignment of the cause of death and in the interpretation and application of the ICD classification. S/he is able to train new mortality coders and participate in special projects and quality assurance on causes of death.

Nosologist

A nosologist has achieved a high level of expertise in the rules governing the assignment of the cause of death and in the interpretation and application of the current and previous revisions of the ICD classification. A nosologist should have an understanding of the intentions behind the ICD rules and guidelines. S/he is able to develop content for training programs, train new mortality coders and implement and oversee special projects on causes of death. A nosologist has the ability to implement revisions of the ICD, either major revisions or those resulting from the continuous updating process. Additionally, a nosologist has the ability to work collegially and supportively with statisticians in conducting special projects, in creating reports and in responding to inquiries related to cause-of-death information.

Skill levels (Qualifications):

Entry-level coder

An entry level multiple cause coder should have the equivalent of a secondary school education and good reading skills. An entry-level coder must be able to consult source books and instructional manuals on the use of the ICD. S/he must be able to review medical books and technical journals to acquire familiarity with the etiology, symptoms and pathology of diseases.

Training needs and professional development: Anatomy and physiology and medical terminology and use of the ICD classification and conventions for multiple cause coding.

Intermediate level coder

An intermediate level multiple cause coder should have at least two years of experience coding death certificates. An intermediate level multiple cause coder should have successfully completed training in anatomy and physiology and medical terminology.

Training needs and professional development: Medical science including etiology, symptoms and pathology of diseases.

Advanced coder

An advanced multiple cause coder should be a credentialed intermediate level coder with at least five years of experience coding death certificates. S/he should demonstrate an ability to train others in ICD coding for multiple cause of death.

Training needs and professional development: Quality assurance techniques and presentation skills.

Nosologist

A nosologist has a detailed understanding of the history of ICD, its uses and its development. S/he has the ability to contribute to coding and classification policies and strategies at the national and international levels. A nosologist demonstrates expertise in application, interpretation and intentions of the classification.

Training needs and professional development: Exposure to the work of statisticians/epidemiologists with a view to possible collaboration in special studies. Presentation skills.

Functions:

Entry-level coder

Assigns the appropriate ICD codes for multiple causes of death for death certificates that contain legible entries and use traditional terminology, that contain all required information, and that use terms for which there are specified codes and rules in the ICD. The coding should be supervised or verified by an experienced coder. Identifies the need to query certifier for clarification.

Intermediate level coder

Assigns the appropriate ICD codes and ensures the appropriate codes are assigned by others for multiple causes of death for certificates made more complex by, for example, the sequencing of the reported causes of death, the nature or manner of death or incomplete or imprecise information. Identifies the need to query certifier for clarification. Evaluates work of and assists the entry-level coder. Intermediate level coders are able to work independently without direct supervision

Advanced coder

Assigns the appropriate ICD codes and ensures the appropriate codes are assigned by others for multiple cause of death for certificates made more complex by, for example, the sequencing of the reported causes of death, the nature or manner of death or incomplete or imprecise information. Trains others in the use of ICD classification and conventions in multiple cause coding. Develops, performs or contributes to quality assurance programs and other special projects using coded data. Identifies the need to query certifier for clarification.

Nosologist

A nosologist responds to questions posed by peers nationally and internationally and is viewed as an expert with definitive knowledge of the procedures and techniques used to classify multiple causes of death.

S/he designs and conducts special studies that involve rule or code modifications that could influence changes in ICD coding practices, including updates and revisions to the classification, and national and international statistics. Such studies include projects where the comparability of classification between countries is examined or where different versions of the ICD or changes made to the classification are evaluated. These projects require recognition of problems and consistent interpretation of new and highly technical instructions for determining multiple causes of death. The nosologist consults clinical and other experts, including WHO Family of International Classifications Collaborating Centres, about the definition, recognition and coding of non-indexed conditions. Participates in implementing ICD changes resulting from major revisions and from the continuous updating process. Supports statisticians and epidemiologists in understanding and clarifying coding issues associated with special studies and responses to public inquiries.

DEFINITIONS, SKILL LEVELS, AND FUNCTIONS FOR MORBIDITY CODER

The International Federation of Health Record Organizations (IFHRO) is working in conjunction with the World Health Organization's (WHO) Collaborating Centres for the Family of International Classifications Subgroup on Training and Credentialing to oversee credentialing examinations for medical coding personnel who wish to demonstrate an internationally recognized proficiency in the use of the International Statistical Classification of Diseases and Related Health Problems (ICD-10). Below are the definitions, skill levels and functions deemed necessary to sit for a credentialing examination in morbidity coding. This international credential reflects the use of ICD-10 and the WHO standard for morbidity coding, as defined in Volume 2 of ICD-10. It is recognized that some countries use clinical modifications of ICD-10, already have their own national credentialing exams that require different pre-requisites and may use different definitions for selection of diagnoses to code and analyze; this complicates efforts to achieve international standardization in morbidity data. At all levels coders and nosologists adhere to the privacy principles of their country's respective ethical and legal framework.

CREDENTIAL FOR CODING OF MORBIDITY

Definition:

A morbidity clinical coder accurately extracts clinical data from a health record, assigns the correct ICD-10 code for each condition and selects the main condition.

Entry-level coder (trainee)

An entry-level morbidity coder has the ability to read and comprehend a standard health record and to recognize and select the proper ICD-10 code(s), for the conditions listed in the health record based on established conventions for use of the ICD. S/he must demonstrate a capacity for accurately assigning codes in compliance with complex instructions and rules. S/he exerts a high degree of discipline in adapting to the technical requirements of various classification activities and procedures. S/he must work towards a high rate of consistency and productivity. S/he will establish and record the correct sequence of codes relating to a single episode of health care and record these accurately and completely in a timely manner. All work of a trainee should be subject to verification by a more experienced morbidity classification coder before being released.

Intermediate level coder

An intermediate level morbidity coder possesses all of the skills of an entry level coder. S/he is able to assign codes on more complex cases from more complex records than an entry-level coder. Complicated health records and case notes will require significant experience and abstracting skills to accurately identify and assign the correct main condition and relevant co-morbidities. S/he must demonstrate a capacity for accurately verifying coded work in

compliance with complex instructions and rules. S/he exerts a high degree of discipline in adapting to the technical requirements of various classification activities and procedures. S/he must maintain a high rate of consistency and productivity. Work of an intermediate level coder should be verified by an advanced coder periodically.

Advanced coder

An advanced level morbidity coder possesses all of the skills of an intermediate level coder. An advanced level morbidity coder has achieved a high level of expertise in the rules governing the assignment of ICD codes and in the interpretation and application of the ICD classification. S/he is able to train new morbidity coders and implement and oversee special projects and quality assurance on morbidity data.

Nosologist

A nosologist has achieved a high level of expertise in the ICD rules and in the interpretation and application of the current and previous revisions of the ICD classification. A nosologist should have an understanding of the intentions behind the ICD rules and guidelines. S/he is able to develop content for training programs, train new morbidity coders and implement and oversee special projects on coded data. A nosologist has the ability to implement revisions of the ICD, either major revisions or those resulting from the continuous updating process. Additionally, a nosologist has the ability to work collegially and supportively with statisticians in conducting special projects, in creating reports and in responding to inquiries related to morbidity information.

Skill levels (Qualifications):

Entry-level coder

An entry-level morbidity coder should have the equivalent of a secondary level education and good reading skills. An entry-level coder must be able to consult source books and instructional manuals on the use of the ICD. S/he must be able to review medical books and technical journals to acquire familiarity with the etiology, symptoms and pathology of diseases.

Training needs and professional development: Anatomy and physiology and medical terminology and use of the ICD classification and conventions. Ability to read and interpret a health record.

Intermediate level coder

An intermediate level morbidity coder should have at least two years of experience coding health records. An intermediate level morbidity coder should have successfully completed training in anatomy and physiology and medical terminology.

Training needs and professional development: Medical science including etiology, symptoms and pathology of diseases.

Advanced coder

An advanced morbidity coder should be a credentialed intermediate level coder with at least five years of experience coding health records. S/he should demonstrate an ability to train others in ICD coding for morbidity and to supply advice as required.

Training needs and professional development: Quality assurance techniques and presentation skills.

Nosologist

A nosologist has a detailed understanding of the history of ICD, its uses and its development. S/he has the ability to contribute to coding and classification policies and strategies at the national and international levels. A nosologist demonstrates expertise in application, interpretation and intentions of the classification. S/he understands the different uses of morbidity data which may require different approaches to coding and selection rules.

Training needs and professional development: Exposure to the work of statisticians/epidemiologists with a view to possible collaboration in special studies. Presentation skills.

Functions:

Entry-level coder

Assigns codes in the proper sequence, or ensures the appropriate ICD codes for records coded by others, of the conditions listed in the health record that contain legible entries and use traditional terminology, that contain all required information, and that use terms for which there are specified codes and rules in the ICD. The coding should be supervised or verified by an experienced coder. An entry level coder is able to work in all health care settings. The coder should be able to identify when further guidance/assistance is needed in assigning the correct code. The entry-level coder should be able to research unfamiliar terms and concepts and seek confirmation from an experienced coder.

Intermediate level coder

Assigns codes in the proper sequence, or ensures the appropriate ICD and interventions codes for records coded by others, of the conditions listed in the health record made more complex by, for example, the nature of injury or illness or incomplete or imprecise information. Evaluates work of and assists the entry-level coder. Intermediate level coders are able to work independently without direct supervision. An intermediate level coder is able to work in all health care settings.

Advanced coder

Assigns codes in the proper sequence, or ensures the appropriate ICD codes for records coded by others, of the conditions listed in the health record made more complex by, for example,

the nature of injury or illness or incomplete or imprecise information.. Trains others in the use of ICD classification and conventions in morbidity coding. Develops, performs or contributes to quality assurance programs and other special projects using coded data. Advanced level coders are able to work independently without direct supervision. An advanced coder is able to work in all health care settings.

Nosologist

A nosologist responds to questions posed by peers nationally and internationally and is viewed as an expert with definitive knowledge of the procedures and techniques used to classify morbidity data. S/he designs and conducts special studies that involve rule or code modifications that could influence changes in ICD coding practices, including updates and revisions to the classification, and national and international statistics. Such studies include projects where the comparability of classification between countries is examined or where different versions of the ICD or changes made to the classification are evaluated. These projects require recognition of problems and consistent interpretation of new and highly technical instructions. The nosologist consults clinical and other experts, including WHO Family of International Classifications Collaborating Centres, about the definition, recognition and coding of non-indexed conditions. Participates in implementing ICD changes resulting from major revisions and from the continuous updating process. Supports statisticians and epidemiologists in understanding and clarifying coding issues associated with special studies and responses to public inquiries.

August 25, 2003

Attachment 5

Proposal to Establish an International Training and Credentialing Program for Mortality and Morbidity Coders

The International Collaborative Effort on Automating Mortality Statistics requested assistance from the World Health Organization (WHO) Collaborating Centres for the Family of International Classifications (FIC) on the establishment of an international training and credentialing program for mortality coding. The need for trained mortality coders for both automated and manual systems is significant. Additionally, advanced coders and nosologists are needed to train and qualify new mortality coders and to implement special projects and maintain and enhance automated systems. With the majority of mortality coders today having learned their skills on the job and many being close to retirement, there is no structure in place to assure that new coders will be available to continue the profession.

Due to the current lack of status of this profession, the low salaries and the few number of positions available, there is little interest in those looking for health care careers to think of mortality coding as a profession. This raises the concern that the collection of mortality data in the future may be compromised. Using clinicians to code their own records is not an acceptable alternative, because it is expensive and may result in inconsistent data. Use of "pick lists" also must be discouraged and would degrade the quality of mortality data.

The need for international training and credentialing of mortality coders was identified as an action item by the network of WHO Collaborating Centers at their October 1999 annual meeting. The WHO Subgroup on Training and Credentialing also concurred that an international training and credentialing program for morbidity coding would be beneficial for the international collection and comparison of morbidity data. There are well established morbidity training programs leading to University level degrees in a few countries. But for most countries, no established training program exists even with the increasing importance of morbidity coding.

Finally, it has been identified that many countries do not use the WHO standards for mortality and morbidity coding, as specified in Volume 2 of the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10). International training and credentialing could address this problem.

It is being proposed that an international training and credentialing program for mortality and morbidity coding be established under the auspices of an existing non-governmental organization. There are significant differences in using automated systems versus manual coding for mortality. Also, there is different logic for multiple cause coding versus underlying cause selection. Similar differences exist between selection of the main condition versus listing of secondary conditions for morbidity coding. Due to these differences in approach to the different types of coding it is being proposed that the international training and credentialing be established in phases.

The initial phase will consist of training and credentialing for underlying cause of death coding. The second phase will be the establishment of training and credentialing for morbidity coding. The third phase will focus on multiple cause coding but cannot be established until international rules for multiple cause coding are approved by all participating countries. Definitions, Skill Levels and Functions have been developed by the WHO Subgroup on Training and Credentialing for all three categories of coders at the entry level, intermediate level, and advanced level, as well as for nosologists. Credentialing would be for coders at the intermediate and advanced levels.

The following model is being proposed for all three phases:

- The International Federation of Health Record Organizations (IFHRO) will oversee the international credentialing program with the direct administration of the program being maintained by either the professional health information management association of a particular country or the participating country's health ministry. It would also be possible, for those countries that wish, to establish a working association with a formal educational program of another country.
- Courses deemed essential for a professional mortality or morbidity coder, as well as the annual examination, could be certified by IFHRO.
- Those individuals who are currently working as mortality and morbidity coders would be eligible to sit for the credentialing examination regardless of their educational background.
- For underlying cause, the training program will be based on existing training materials for the ICD-10 that have been designed for the selection of underlying cause developed by the U.S. National Center for Health Statistics, the United Kingdom Collaborating Center (TENDON), Australia, as well as relevant training materials developed by other countries. These training materials should incorporate internationally-approved updates to the classification.
- For main condition coding the training program will be based on the rules and conventions of Volume 2 of the ICD-10.
- For multiple cause, the training program will be based on the rules established by the international community prior to the implementation of this phase.
- All countries electing to participate in a credentialing program and accept credentialed mortality and morbidity coders as professionals responsible for the quality of the data collected on death certificates and medical records must adhere to the same set of coding rules and conventions.
- For those countries with an established health information management association, the credentialing should be offered as an extension to existing college degree or similar programs. This may encourage persons interested in the health information management field to pursue the additional mortality coder credential.
- The credentialing should be considered an essential qualification for those individuals selected to code death certificate data for the country.
- Formal examinations will be overseen by IFHRO on an annual basis for those persons who have completed the training program established by each person's respective country. IFHRO will award the international credential. An earlier version of this proposal was approved at the 2000 meeting of IFHRO.

August 25, 2003

Attachment 6

NEEDS ASSESSMENT QUESTIONNAIRE
FOR ICD MORTALITY CODERS

This questionnaire has been developed by the subgroup on Training and Credentialing of the network of World Health Organization Collaborating Centres for the Family of International classifications. The purpose of the questionnaire is to gather information about the capacity, skills and responsibilities of ICD mortality coders in member countries. The questionnaires should be returned to your WHO Regional Adviser, as follows:

_____

_____

_____

Please write legibly or type responses or enter the information directly onto the computer file of the form. We would appreciate receiving your response by 1 December 2003. Thank you.

Country: _____

Person completing the questionnaire:

Name: _____

Organization: _____

Post/job title: _____

Mailing address: _____

_____

_____

Telephone number: _____

Fax number: _____

Role in ICD implementation: _____

_____

Signature: _____

Date (dd/mm/yy): _____

1. Does your country code mortality (death certificate) data?

□ Yes *(please go to Q2)*
□ No *(please go to Q4)*

2. If you answered Yes to Q1, do you code underlying cause of death for all deaths in your country?

□ Yes
□ No, only for a portion of the deaths – *please explain* _____
_____
_____

3. If you answered Yes to Q1, do you use:

□ ICD-10 (*please go to Q7*)
□ ICD-9 (*please go to Q4)*
□ other versions of the ICD
– specify _____ (*please go to Q4)*
□ another classification
– specify _____ (*please go to Q4)*

4. If you do not code mortality data or if your country uses a classification other than ICD-10, do you have plans to implement ICD-10?

□ No *(please go to Q6)*
□ Yes

5. If you answered Yes to Q4, when do you plan to implement ICD-10?

_____

6. If your country does not code mortality data, does not currently use ICD-10 or plan to implement ICD-10, please indicate the impediments to introducing ICD-10 (*please tick all that apply)*

□ there is a lack of high-level political commitment
□ there is a lack of financial resources to support training
□ it is too expensive to buy the coding books
□ it is too expensive or difficult to change our computer system/s
□ we don't have a computer system which will handle ICD-10 codes
□ we don't have sufficient ICD-10 trainers
□ we don't have sufficient coders
□ our coders are too inexperienced
□ there are no translations of the ICD-10 in our language
□ other – *please specify* _____

_____
_____
_____

The remainder of the survey is for countries that currently code mortality data.
If you answered Yes to Q1, please continue to answer the following questions.
If you answered No to Q1, this is the end of the survey. Thank you for your time.

7. If you answered Yes to Q1, where is mortality coding done in your country?
(*please tick all that apply*)

□ Ministry of Health
□ national statistical office
□ one central hospital
□ only some hospitals
□ all hospitals
□ Registrar's office
□ other – *please specify* _____

_____

8. How is mortality coding done in your country?

□ manually (i.e. using coding books)
□ using automated software – *please specify* _____

□ both

□ other – *please specify* _____

9a. We are interested in the type of people who do the mortality coding in your country. Please indicate the job title/s of the people who do the coding (*please tick all that apply)*

□ Clinical coder

□ Administration officer/clerk

□ Medical record officer/health information manager

□ Statistical assistant

□ Medical officer

□ other - *please specify* _____

_____

9b. What is the employment category for coders?

□ Clerical

□ other - *please specify* _____

_____

9c. Are there different gradings based on knowledge and experience? If yes, please explain.

□ Yes- *please explain*_____

_____

□ No

9d. Are there plans to change the category/gradings? If yes, please explain.

□ Yes- *please explain*_____

_____

□ No

9e **For each category ticked in Q9a, please indicate what level of coders they can be considered, using the criteria in the definitions document that accompanied this survey** *(again, please tick all that apply)*

	Entry level	Intermediate	Advanced	Nosologist
Clinical coder	□	□	□	□
Administration officer /clerk	□	□	□	□
Medical record officer /health information manager	□	□	□	□
Statistical assistant	□	□	□	□
Medical officer	□	□	□	□
Other – *please specify title/s*				
_____	□	□	□	□
_____	□	□	□	□

9f. **What percentage of their time do the categories of mortality coders specified in Q9a spend assigning mortality codes?**

	<20%	21-50%	51-80%	81-100%
Clinical coder	□	□	□	□
Administration officer /clerk	□	□	□	□
Medical record offices				

/health information manager	□	□	□	□
Statistical assistant	□	□	□	□
Medical officer	□	□	□	□
Other – *please specify title/s*				
_____	□	□	□	□
_____	□	□	□	□

10. If mortality coders in your country do not spend 100% of their time coding, what other responsibilities do they have?

□ data entry
□ data analysis
□ quality assurance of coded data
□ report writing
□ coding of birth certificates
□ other *please specify* _____
_____
_____

11. Think about entry level mortality coders in your country. Before these coders initially begin the job of mortality coding, is it necessary for them to have had formal education in how to code?

□ Yes
□ No, we teach them on the job *(please go to Q14)*

12. If you answered Yes to Q11, where is this education provided? (*please tick all that apply)*

□ university
□ community college
□ distance education course
□ through a short course provided by trainers from another country

□ other – *please specify*_____

_____

13. What subjects do you require them to have studied before they start to code cause/s of death? (*please tick all that apply)*

□ medical terminology
□ anatomy & physiology
□ basic coding
□ computer basics (data entry, word processing, spreadsheets)
□ principles behind the use of statistical classifications
□ how to use automated coding software
□ other - *please specify*_____

_____

14. If you provide on-the-job training, which of these subjects do you provide after coders are hired but before they start to code cause/s of death? *(please tick all that apply)*

□ medical terminology
□ anatomy & physiology
□ basic coding
□ computer basics (data entry, word processing, spreadsheets)
□ principles behind the use of statistical classifications
□ how to use automated coding software
□ other - *please specify*_____

_____

15. Are there specific training materials being used in your country for ICD mortality coding?

□ No
□ Yes - *please specify* _____

_____

_____

16. Do you feel that the training that mortality coders get before they start to code is adequate to enable them to assign codes correctly according to coding rules applicable to the classification you use?

□ Yes

□ No - *please specify why it is inadequate*_____

_____

_____

17. Do you think you have a sufficient number of trained mortality coders in your country?

□ Yes

□ No - *please specify how many more coders you think are required*

_____

18. Do you need assistance with training of mortality coders?

□ No

□ Yes - *please specify what assistance you would find helpful*

_____

_____

_____

19. After a person begins to code cause/s of death, how long do you think they need to become proficient at it?

□ 0-6 months

□ 7-12 months

□ 13-24 months

□ more than 2 years

20. After initial training in how to code, how do you ensure that your mortality coders become expert at their jobs?

□ further on the job training

□ further formal education external to the organization

□ mentoring with another expert coder

□ other – *please specify* _____

_____

21. Do you experience a serious problem with turnover of coders?

□ No

□ Yes - *please specify why you think there is a problem with turnover*___

_____

_____

22. Is there some form of standard national credentialing, certification or formal examination for mortality coders in your country?

□ No *(please go to Q24)*

□ Yes

23. If you answered Yes to Q22, please indicate how this works:

□ national examination held at a central location

□ national examination held at many locations

□ recommendation by supervisor based on coder experience

□ examination held after a training course

□ other – *please specify* _____

_____

24. If you answered No to Q22, would you find an international credential for mortality coders useful?

□ Yes

□ No – *please specify why this would not be useful* _____

_____

_____

25. Are there any other comments you would like to make about mortality coding in your country?

Thank you for your time in completing this questionnaire.

Attachment 7

NEEDS ASSESSMENT QUESTIONNAIRE FOR ICD MORBIDITY CODERS

This questionnaire has been developed by the Subgroup on Training and Credentialing of the network of World Health Organization Collaborating Centres for the Family of International Classifications. The purpose of the questionnaire is to gather information about the capacity, skills and responsibilities of ICD morbidity coders responsible for coding in a hospital inpatient setting in member countries. The questionnaires should be returned to your WHO Regional Adviser, as follows: _____

_____

_____

Please write legibly or type responses or enter the information directly onto the computer file of the form. We would appreciate receiving your response by 1 December 2003. Thank you.

Country: _____

Person completing the questionnaire:

Name: _____

Organization: _____

Post/job title: _____

Mailing address: _____

_____

_____

Telephone number: _____

Fax number: _____

Role in ICD implementation: _____

_____

Signature: _____

Date (dd/mm/yy): _____

1. Does your country code morbidity (hospital discharge) data?

□ Yes *please go to Q2*
□ No *please go to Q5*

2. If you answered Yes to Q1, do you code:

□ all hospital discharges from all hospitals
□ a percentage of discharges from all hospitals
□ all discharges from some hospitals
□ a percentage of discharges from some hospitals
□ other *please specify* _____

3. If you answered Yes to Q1, please indicate what is coded.
(please tick all that apply)

□ Main (or principal) diagnosis only
□ Main diagnosis plus other secondary diagnoses
□ Main operation or procedure
□ Main operation plus other operations or procedures
□ External causes
□ Other *please specify* _____

4. If you answered Yes to Q1, what classification/s do you use:

4.1 for <u>diagnoses</u>

□ ICD-10
□ ICD-9
□ other versions of the ICD (eg ICD-9-CM, ICD-10-AM)
– specify _____
□ another classification
– specify _____

4.2 for <u>operations or procedures</u>

□ ICPM
□ OPCS

□ ICD-9-CM

□ ACHI

□ another classification

– specify _____

5. If you do not code morbidity data or if your country uses a classification other than ICD-10, do you have plans to implement ICD-10 (or a clinical modification)?

□ No *please go to Q7*

□ Yes

□ not applicable, we already use ICD-10

6. If you answered Yes to Q5, when do you plan to implement ICD-10 (or a clinical modification)?

_____

7. If your country does not code morbidity data, does not currently use ICD-10 or plan to implement ICD-10, please indicate why this is the case (*please tick all that apply)*

□ there is a lack of high-level political commitment

□ there is a lack of financial resources to support training

□ it is too expensive to buy the coding books

□ it is too expensive or difficult to change our computer system/s

□ we don't have a computer system which will handle ICD-10 codes

□ we don't have sufficient ICD-10 trainers

□ we don't have sufficient coders

□ our coders are too inexperienced

□ there are no translations of the ICD-10 in our language

□ there is no procedure coding system with ICD-10

□ we are waiting for ICD-10-CM to be released

□ other – *please specify* _____

_____

_____

_____

The remainder of the survey is for countries that currently code morbidity data.

If you answered Yes to Q1, please continue to answer the following questions.
If you answered No to Q1, this is the end of the survey. Thank you for your time.

8. If you answered Yes to Q1, where is morbidity coding done in your country? (*please tick all that apply*)

□ all hospitals
□ one central hospital
□ only some hospitals
□ Ministry of Health
□ national statistical office
□ other – *please specify* _____

_____

9. How is morbidity coding done in your country?

□ manually (i.e. using coding books)
□ using coding software – *please specify* _____
□ both
□ other – *please specify* _____

10a. We are interested in the type of people who do the morbidity coding in your country. Please indicate the job title/s of the people who do the coding (*please tick all that apply)*

□ Clinical coder
□ Administration officer/clerk
□ Medical record officer/health information manager
□ Statistical assistant
□ Medical officer
□ Nurse
□ Nosologist
□ other - *please specify* _____

_____

10b. What is the employment category for coders?

□ Clerical

□ other - *please specify* _____

_____

10c. Are there different gradings based on knowledge and experience? If yes, please explain.

□ Yes- *please explain*_____

_____

□ No

10d. Are there plans to change the category/gradings? If yes, please explain.

□ Yes- *please explain*_____

_____

□ No

10e. For each category ticked in Q10a, please indicate what level of coders they can be considered, using the criteria in the definitions document that accompanied this survey *(again, please tick all that apply)*

	Entry level	Intermediate	Advanced	Nosologist
Clinical coder	□	□	□	□
Administration officer /clerk	□	□	□	□
Medical record officer /health information manager	□	□	□	□
Statistical assistant	□	□	□	□
Medical officer	□	□	□	□

Nurse	□	□	□	□
Nosologist	□	□	□	□
Other – *please specify title/s*				
_____	□	□	□	□
_____	□	□	□	□

10f. What percentage of their time do the categories of morbidity coders specified in Q10a spend assigning morbidity codes?

	<20%	21-50%	51-80%	81-100%
Clinical coder	□	□	□	□
Administration officer /clerk	□	□	□	□
Medical record offices /health information manager	□	□	□	□
Statistical assistant	□	□	□	□
Medical officer	□	□	□	□
Nurse	□	□	□	□
Nosologist	□	□	□	□
Other – *please specify title/s*				

_____ □ □ □ □

_____ □ □ □ □

11. If morbidity coders in your country do not spend 100% of their time coding, what other responsibilities do they have? *please tick all that apply*

□ data entry
□ data analysis
□ quality assurance of coded data
□ report writing
□ general medical record duties
□ medico-legal duties
□ ward clerk or ward receptionist
□ other *please specify* _____
_____
_____

12. Think about entry level morbidity coders in your country. Before these coders initially begin the job of morbidity coding, is it necessary for them to have had formal education in how to code?

□ Yes
□ No, we teach them on the job *please go to Q15*

13. If you answered Yes to Q12, where is this education provided? (*please tick all that apply)*

□ university
□ community college
□ distance education course
□ through a short course provided by trainers from another country
□ through a short course provided by local trainers
□ other – *please specify*_____
_____

14. What subjects do you require them to have studied before they start to code diseases and/or procedures? (*please tick all that apply)*

□ medical terminology
□ anatomy & physiology
□ basic coding
□ computer basics (data entry, word processing, spreadsheets)
□ principles behind the use of statistical classifications
□ how to use coding software
□ general records management
□ cancer notification
□ other - *please specify*_____
_____

15. If you provide on-the-job training, which of these subjects do you provide after coders are hired but before they start to code? *(please tick all that apply)*

□ medical terminology
□ anatomy & physiology
□ basic coding
□ computer basics (data entry, word processing, spreadsheets)
□ principles behind the use of statistical classifications
□ how to use coding software
□ cancer notification
□ general records management
□ other - *please specify*_____
_____

16. Are there specific training materials being used in your country for ICD morbidity coding?

□ No
□ Yes - *please specify* _____
_____
_____

17. Do you feel that the training that morbidity coders get before they start to code is adequate to enable them to assign codes correctly according to coding rules applicable to the classification you use?

□ Yes

□ No - *please specify why it is inadequate*_____

_____

_____

18. Approximately how many morbidity coders do you estimate there are in your country?

_____

19. Do you think you have a sufficient number of trained morbidity coders?

□ Yes

□ No - *please specify how many more coders you think are required*

_____

20. Do you need assistance with training of morbidity coders?

□ No

□ Yes - *please specify what assistance you would find helpful*

_____

_____

_____

21. After a person begins to code diagnoses and/or operations, how long do you think they need to become proficient at it?

□ 0-6 months

□ 7-12 months

□ 13-24 months

□ more than 2 years

22. After initial training in how to code, how do you ensure that your morbidity coders become expert at their jobs? *(please tick all that apply)*

□ periodic assessment or auditing of their coding with feedback to the coder
□ further on the job training
□ further formal education external to the organization
□ mentoring with another expert coder
□ other – *please specify* _____
_____

23. Do you experience a serious problem with turnover of coders?

□ No
□ Yes - *please specify why you think there is a problem with turnover*___
_____
_____

24. Is there some form of standard national credentialing, certification or formal examination for morbidity coders in your country?

□ No *(please go to Q32)*
□ Yes

25. If you answered Yes to Q24, please indicate how this works:

□ national examination held at a central location
□ national examination held at many locations
□ examination held after a training course
□ other – *please specify* _____
_____

26. If you answered Yes to Q24, who develops the examination?

□ national health information management association
□ government agency
□ other – *please specify* _____
_____

27. If you answered Yes to Q24, who administers the examination?

□ national health information management association

□ government agency

□ other – *please specify* _____

_____

28. If you answered Yes to Q24, what is the format of the examination? *(please tick all that apply)*

□ multiple choice

□ case studies

□ essay

□ other – *please specify* _____

_____

29. If you answered Yes to Q24, how is the examination given? *(please tick all that apply)*

□ written

□ oral

□ on line (computerized)

□ other – *please specify* _____

_____

30. If you answered Yes to Q24, how often is the examination given?

□ twice a year

□ once a year

□ other – *please specify* _____

_____

31. If you answered Yes to Q24, once an individual has received the credential or certification is there a requirement for continuing education or professional development in order to retain the credential?

□ Yes

□ No

32. If you answered No to Q24, would you find an international credential for morbidity coders useful?

□ Yes

□ No – *please specify why this would not be useful* _____

_____

_____

33. Are there any other comments you would like to make about morbidity coding in your country?

_____
_____
_____
_____
_____
_____

Thank you for your time in completing this questionnaire.

Attachment 8

EDUCATIONAL NEEDS FOR UNDERLYING CAUSE OF DEATH CODERS

Availability of resource materials and essential references needed for coding

- Full sets of the ICD-10
- Medical dictionary
- Training materials
- Drug references
- Abbreviation list
- Contact person to ask questions

Knowledge of basic medical science

- Medical terminology
- Basic anatomy
- Basic physiology
- Etiology
- Signs and symptoms
- Basic pathology

Privacy and confidentiality principles (see appended proposed principles)

- Use of patient identifiable information
- Minimal necessary principles
- Access to patient identifiable information
- Adherence to relevant laws and regulations

General uses of coded data

- Context in which coding is done
- Purposes for coding
- Statistical outputs
- Evidence for health policy
- Planning and evaluating health services and programs
- Medical and public health research

Specific uses of underlying cause of death data

- Health situation and trend analysis
  - Leading causes of death
  - Definition of policies and priorities
  - Planning health programs and services
  - Health indicators
  - Trend analyses
  - A critical element to identify:
    - ✓ Public health problems
    - ✓ Groups at risk
    - ✓ Needs of medical and sanitary research
- Epidemiological surveillance
  - First or main source of information for certain diseases
  - At local level, investigation of cases, disease control measures
  - Specific population groups/problems (e.g., maternal and infant mortality, adolescents, elderly)
- Evaluation in health
  - Quality of attention
  - Achievements from specific programs
  - Different technologies

Users of coded data

- Epidemiologists
- Statisticians
- Program managers
- Actuaries
- Policy makers
- Researchers
- Demographers
- Funeral directors
- International organizations (World Health Organization, United Nations)

The International Classification of Diseases (ICD)

- Nomenclature and Classification
- International context
- Standardization and comparability

- History of the classification
- Structure
- Updating mechanisms of classification
- Mappings with other terminologies

Source Documents

- Death certificate or equivalent
- Police reports, coroner reports and other reports
- Quality of source documents

How to code (see appended draft curriculum)

- How to use different volumes of the ICD
- Rules and conventions for coding
- Concept of underlying cause of death
    - Definition
    - International format of medical certificate of cause of death
- Appropriate exercises in selection and coding

Quality Assurance

- Querying processes (e.g., sequencing on certificate, what and how to query)
- Editing and validation
- Responsibility for data quality
- Processes for accessing expert advice

Appendices

August 25, 2003

Appendix 1

Proposed Confidentiality and Privacy Principles

The following recommendations are for organisations holding personal health data. Organisations and clinical coders should comply with the following principles:

- Justify the purpose – Every proposed use or transfer of patient identifiable information within or from an organisation should be clearly defined and scrutinised, if possible prior to the collection of the data, with continuous uses regularly reviewed.
- Do not use patient identifiable information unless it is absolutely necessary - Patient identifiable information items should not be used unless there is no alternative. Knowledge and consent by the individual should be obtained where necessary.
- Use the minimum necessary patient identifiable information – where it has been considered that patient identifiable information is essential, each data item should be justified separately, with the aim of reducing identifiability.
- Personal health information should be as accurate and up to date as necessary for the purposes for which it is collected.
- Access to patient identifiable information should be on a strictly need to know basis – Only those coders who need access to patient identifiable information should have access to it, and they should only have access to the items they need to see. Both the amount and type of information collected are limited to what is necessary to fulfil the purposes identified.
- Everyone with access to patient identifiable information should be aware of their responsibilities – All coders should be fully aware of their responsibilities and obligations to respect patient confidentiality. Personal health information should not be disclosed for purposes other than those for which it is collected unless permitted by the country's confidentiality and privacy policies as articulated in law or regulation.
- Understand and comply with the law (Data Protection) of the respective country – Every use of patient identifiable information and data must be lawful and fully upheld by the coder.
- Liaise closely with Data Protection Manager (if in post) – Especially with reference to sending confidential information over the internet or via e-mail. Personal information should be protected with appropriate security safeguards.

Appendix 2

Draft Curriculum for Underlying Cause of Death Coders (How to Code)

(Available upon request)

Attachment 9

EDUCATIONAL NEEDS FOR MORBIDITY CODERS

This core international curriculum describes entry-level requirements. Its purpose is to provide a basis for education for all countries. There may be additional country specific items such as education in the applicable procedure classification not listed here.

Resource materials and essential references needed for coding

- Full sets of the ICD-10 (-AM, -CA, -CM)
- Medical dictionary
- Training materials
- Drug references
- Abbreviation list
- Contact person to ask questions

Knowledge Clusters

- Biomedical sciences

  Intent: To develop an understanding of the clinical knowledge base through the study of the structure and function of the healthy human body, pathophysiology, diagnostic and treatment modalities, and pharmacy therapy available for clinical management of patient care and to enhance professional communication in healthcare environments.

    - Medical terminology (Designed to teach students to accurately spell and define common medical terms related to major disease processes, diagnostic procedures, laboratory tests, abbreviations, drugs, and treatment modalities.)
    - Basic anatomy and physiology (A study of the structure and function of the human body utilizing a system approach. Emphasis placed on the gross and microscopic anatomy as well as the physiology of the cell, skeletal system, skin and muscular system, nervous system cardiovascular, respiratory, urinary, reproductive, endocrine, and digestive systems.)
    - Pathophysiology/Disease process (Emphasis placed on the disease processes affecting the human body via an integrated approach to specific disease entities, including the study of causes, diagnosis and treatment of disease)
    - Pharmacology (A study of the principles of pharmacology)
- Healthcare Data Content and Structure

  Intent: To introduce the generic components of the content, use and structure of healthcare data and data sets and how these components relate to primary and secondary record systems and to introduce legal and ethical issues applicable to health information.

    - Healthcare data content and structure

        - Content of the health record
        - Documentation requirements
        - Healthcare record data sets
        - Source documents
            - Quality of source documents
    - General uses of coded data
        - Context in which coding is done
        - Purposes for coding
        - Statistical outputs
        - Evidence for health policy
        - Planning and evaluating health services and programs
        - Medical and public health research
        - Reimbursement, e.g., case mix funding
    - Users of coded data
        - Providers (e.g., clinicians, hospitals)
        - Third party parties (e.g., government, private insurance)
        - Epidemiologists
        - Statisticians
        - Program managers
        - Actuaries
        - Policy makers
        - Researchers
    - Legal/Ethical issues relevant to the country in which coding is being done
        - Privacy and confidentiality principles
        - Release of information
        - Professional ethics
- Healthcare Delivery Systems

  Intent: To describe the organization, financing and delivery of healthcare services
    - Organization of healthcare delivery
    - Healthcare organizations
    - Accreditation standards if any
    - Licensure/regulatory agencies if any
    - Payment and reimbursement systems if any
- Clinical Classification Systems

  Intent: To develop an understanding of coding and classification systems in order to assign valid diagnostic and/or procedure codes. The validation of coded clinical information, case mix/severity of illness data is included.
    - The International Classification of Diseases (ICD)
        - Nomenclature and Classification
        - International context
        - Standardization and comparability
        - History of the classification
        - History of modifications
        - Updating mechanisms of classification
    - How to code
        - How to use different volumes of the ICD
        - Coding rules and conventions of ICD Coding Guidelines/standards
        - Reporting Guidelines

        - Definition of main diagnosis, secondary diagnoses etc. as per volume II of ICD-10. Additional local definitions relevant to the country in which training is occurring such as principal diagnosis, other diagnoses, principal procedure and other procedures
    - Appropriate exercises in coding and sequencing
- Quality Assurance
    - Querying processes (e.g., sequencing of diagnoses/procedures, what and how to query)
    - Editing and validation
    - Responsibility for data quality
    - Processes for accessing expert advice
    - Clinical coding audit

- Specific Uses of Morbidity Data

  Intent: To study the specific uses of coded morbidity data and health information appropriate to healthcare settings.
  - Quality and utilization of healthcare services
    - Quality assurance
    - Utilization of healthcare services
  - Healthcare clinical decision-making and communication
    - Monitor outcomes
    - Measure performance
  - Health situation and trend analysis
    - Leading causes of disease and injury
    - Definition of policies and priorities
    - Planning health programs and services
    - Public health
    - Medical research
  - Performance improvement activities
    - Monitor service and resource utilization, analyze healthcare costs
  - Health research and treatment development
    - First or main source of information for certain diseases
    - At local level, investigation of cases, disease control measures
    - Specific population groups/problems (e.g., maternal and infant mortality, adolescents, elderly)
  - Healthcare management and policy decision-making

- Other Uses of Morbidity Data (Country specific)

  Intent: To study other uses of coded morbidity data and health information appropriate to the country in which coding is being done.
  - Reimbursement
    - Prospective payment systems
    - Third party payers (e.g., government, private insurance)
    - Peer review organization
    - Compliance
  - Grouping methodologies
    - Case mix adjusted resource utilization
    - Health care organization comparison

Attachment 10

Terms of Reference
WHO FIC Implementation Committee
Subgroup on Training and Credentialing

Purpose

Assist and advise WHO in improving the level and quality of use of the WHO Family of International Classifications (WHO-FIC) in Member States by developing a training and credentialing strategy for the WHO-FIC, identifying best training practices and providing a network for sharing expertise and experience on training.

Background

The Subgroup on Training and Credentialing of the WHO-FIC Implementation Committee was established at the 1999 meeting of Heads of Collaborating Centres in recognition of:

- The critical role of education and training for the successful implementation, use and maintenance of a classification system and for the quality of data produced
- The opportunities for sharing and strengthening education and training in members of the Family of International Classifications through international efforts, and
- The resulting benefits for comparability of national and international statistics

The Subgroup was established specifically to:

- Advise WHO and the WHO Regional Offices on best training practices
- Provide a network for sharing expertise and experiences on training
- Work with WHO Regional Offices in identifying needs for skills and training in countries both covered and not covered by Collaborating Centres
- Address the unique issues concerning mortality medical coders and nosologists in an automated environment
- Explore the possibilities for developing an international training and credentialing program for coders of WHO-FIC classifications
- Make recommendations to WHO and the WHO-FIC Collaborating Centres through the WHO-FIC Implementation Committee

Functions

The primary function of the Subgroup is to develop an integrated training and credentialing strategy for the International Classification of Diseases and the International Classification of Functioning, Disability and Health. Other members of the Family of International Classifications will be considered as resources permit. The components of this strategy include the following tasks:

1. Define the skills and levels of training required for coders and nosologists
2. Catalogue, characterize (e.g., purpose, subject, language, availability, media and technology) and disseminate information on current educational and training curricula and modules for the WH0-FIC, with an emphasis on ICD and ICF, and identify gaps

3. Review relevant WHO training materials and the mechanisms for their dissemination
4. Gather information from Collaborating Centres and Regional Offices on capacity for ICD-10 and ICF training in WHO member states
5. Conduct needs assessments about the capacity, skills and responsibilities of ICD and ICF coders in member states
6. Explore national and international organizations (e.g., the International Federation of Health Record Organizations) with which coders and nosologists can affiliate
7. Explore the capacity of these organizations to support an international training and credentialing program
8. Identify the additional groups requiring education and training about ICD and ICF (e.g., statisticians, epidemiologists, policymakers, relevant systems managers, clinicians and health sciences students)
9. Identify groups requiring education and training in the proper completion of source documents (e.g., death certificate, health record)
10. Catalogue, characterize and disseminate information on current educational and training curricula and modules for these additional professionals and identify gaps
11. Identify approaches for assuring that training and credentialing are dynamic processes, responsive to changes in medical science, technology, coding rules, etc.

Structure and Working Methods

The Subgroup should have an integrated mandate of WHO-FIC training and credentialing although the nature and phase of different members of WHO-FIC may differ in different countries. If necessary, different work groups may be formed on specific WHO-FIC classifications so as to address different issues.

The structure of the Subgroup should involve permanent members from WHO (including the regional offices) and each collaborating centre who will primarily devote their time to developing and, to the extent possible, carrying out strategies for addressing the functions specified above.

Membership is open to Regional Offices and all Collaborating Centres with national and regional responsibilities for WHO FIC implementation. All WHO-FIC centers may nominate participants and beyond the permanent members additional participants may take part in committee meetings as observers.

The chair should preferably be a single person to emphasize the integration of WHO- FIC implementation.

The Subgroup should develop an annual work plan, which lists in detail aims, activities, deliverables, timelines and responsibilities for addressing the terms of reference.

Working methods should include e-mail, conference calls and meetings, including an annual meeting during the WHO-FIC HOC. Official meetings of the committee must be held in conjunction with international WHO-FIC meetings.

August 25, 2003