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WHO/HFS/CAS/C/03.
Distr.: LIMITED
ENGLISH ONLY

MEETING OF WHO COLLABORATING CENTRES FOR THE FAMILY OF INTERNATIONAL CLASSIFICATIONS

Cologne, Germany
19-25 October 2003

Title: ICD-10 Electronic Tools Committee: Annual Report 2003

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Purpose: for information

Recommendations: -

Abstract: -

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ICD-10 Electronic Tools Committee: Annual Report 2003

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Introduction

At the WHO Center Heads Meeting in Cardiff in October 1999 it was agreed to convene a committee to support WHO and the WHO Collaborating Centers for the Family of International Classifications in developing policies on electronic classification tools and their dissemination.

This is the fourth annual report of the Electronic Tools Committee (ETC) to summarize the work of the committee in 2003. It puts the results of the current work into the context of the years before. Important new parts have been marked by a sidebar.

Membership

Membership to the ETC is open to any individuals from collaborating organizations who wish to participate actively in the work and aims of the committee. They should submit their names to the Chair (Michael Schopen, schopen@dimdi.de) with copy to the secretariat.

The terms of reference of the ETC are printed in Appendix A.

Meetings

An inaugural meeting was held during the Center Heads Meeting in Cardiff 1999. A second meeting was held during the Center Heads Meeting in Rio de Janeiro in 2000, a third meeting in Bethesda in 2001, and a fourth meeting in Brisbane in 2002. Between the annual meetings the committee has communicated via e-mail.

Workplan 2001-2005

1. Establish and improve a communication platform
2. Establish personal links to other organizations and groups working in related areas
3. Survey collaborating centers for existing electronic tools and classify them according to their purpose, availability and dissemination
4. Identify gaps and current needs
5. Establish criteria for the evaluation and accreditation of electronic tools
6. Support WHO to establish an electronic version of ICD-10 in English

		2001	2002	2003	2004	2005
1.	Establish a communication platform					
	– step 1: e-mail	■	■	■	■	■
	– step 2: news group for discussions			■	■	■
2.	Establish personal links					
	- step 1: identify organizations and groups	■				
	- step 2: establish personal links		■	■	■	■
3.	Survey Collaborating Centers					
4.	Identify gaps and current needs		■	■	■	■
5.	Establish criteria for evaluation				■	■
6.	Electronic version of ICD-10 in English					
	- collect material from Coll. Centers		■			
	- draft concept		■			
	- feasibility study			■		
	- first version			■		

Achievements

During the first meeting ETC participants listed all tools known to them and grouped them into a framework (Appendix B). It was agreed to survey all Collaborating Centers to get more detailed information on the existing tools.

Establish a communication platform

The ETC mainly works by e-mail communication. However, alternative ways of communication improving interactivity are to be considered. As a first step towards interactivity, DIMDI has implemented a news server with restricted access as a discussion platform for the ETC. A news server open to the general public has already been operational at DIMDI since 4 years. As this forum for discussion of coding questions has been very well accepted by the German users, it was considered to implement a version with restricted access for the ETC. However, due to network security restrictions access to this news server was not possible from the Collaborating Centers. As it will be easier to install a web based discussion forum than to convince system administrators in different organizations and institutions all over the world to allow the access to a news server, DIMDI will implement a web based discussion forum with restricted access for the members of the ETC.

This implementation is still pending due to severe technical problems with the content management system of the DIMDI web server. A solution in late 2003 or early 2004 seems now possible following an upgrade of the content management system.

Establish personal links

Members of the ETC have suggested organizations and institutions working in related areas and people as contact persons to exchange information on their work.

Web Site

A web site has been set up to distribute information about the Electronic Tools Committee and results of its work. It is accessible at

<http://www.dimdi.de/en/klasi/koop/who/etc/index.html>

Survey

For the purpose of this survey the ETC agreed on the following definition of an ICD-10 related electronic tool:

"Software for production, maintenance, and application of ICD or for processing and evaluation of data coded with ICD. Electronic tools can be based on standard software, but need some extra functionality."

A questionnaire on ICD-10-related electronic tools was designed via electronic communication in 2001 and sent out to the Collaborating Centers and other institutions.

The results of the survey are available from the web site of the Electronic Tools Committee at

<http://www.dimdi.de/en/klasi/koop/who/etc/index.html>

Electronic version of ICD-10

During the second meeting of the ETC in Rio de Janeiro in 2000 the discussion revealed that there is a strong need for an electronic version of ICD-10 which is also suitable for integration into database systems. The ETC discussed possibilities to disseminate such an electronic version, whether it should be in the public domain or whether it should be sold by WHO or a commercial company. Members of the ETC agreed to prepare a discussion paper for the meeting in Bethesda in 2001.

During this meeting the committee proposed two recommendations for consideration by the Heads of Centers:

Recommendation 1

There is an urgent need for an updated version of all three volumes of the ICD-10. Thus, the Heads of Centers recommend that WHO contact DIMDI in order to obtain necessary support to fulfil this need. DIMDI should collaborate with WHO and those centers that have an electronic version of all three volumes available.

Recommendation 2

The Heads of Centers recommend that WHO, DIMDI and Collaborating Centers work together on promoting the dissemination of updated versions of all volumes of ICD-10 through the Internet in downloadable and accessible form and by CD-ROM. Dissemination should take into account the periodicity recommended by the Update Reference Committee.

These two recommendations were adopted by the Center Heads.

Together with the relaunch of the DIMDI web site in August 2002, web pages with restricted access for WHO and Collaborating Centers have been implemented. Staff of WHO and Collaborating Centers have received a password. These pages give online access to the Tabular List of ICD-10 in English (updates effective in 2003 have been incorporated) and in French (updates not yet incorporated).

Furthermore, files of the Electronic Version of ICD-10 are available in this restricted area.

From an e-mail exchange the chair of the ETC learned that no electronic version of ICD-10 is distributed by WHO. The diskettes are no longer available because the CD-ROM was imminent. Once work on the CD-ROM was discontinued, the diskettes (updated or otherwise) were not reinstated. To overcome this untenable situation, the chair has offered to prepare files of the Tabular List (English) in ASCII, HTML, RTF and CSV within a few days as an emergency solution. However, the approval of WHO will be needed because of copyright issues. Updates effective in 2002 will be incorporated, updates effective in 2003 could be added immediately after the 2002 Center Heads Meeting.

Dissemination policies for the ICD-10 electronic version

During the third meeting of the ETC in Bethesda in 2001 problems of dissemination policies for the ICD-10 electronic version had been identified. The aspects concerning the ETC are closely linked to the dissemination issues raised in the URC. The following three recommendations were approved:

Recommendation 3

All successive versions of ICD-10 and mappings should be made available on the Internet free of charge in a read-only format that cannot be edited or used for value-added products.

Recommendation 4

ICD-10 versions (in French and English) should be made available in electronic format suitable for data processing or integration into computer applications, enabling income generation for WHO.

Recommendation 5

Because WHO has the copyright for the ICD, and given the WHO mandate to maintain the classification and that ICD products produce substantial resources, WHO is called upon to provide sufficient resources to appropriately maintain and update the products. The secretariat advised that the issues related to this recommendation should also be taken up by the Centre Heads through the WHO Executive Board and their respective Ministers of Health.

In late 2002 an XML version of ICD-10 prepared for WHO was distributed among the members of the ETC with request for evaluation. The results are available in the "Report of the XML version of ICD-10" and will be presented at the 2003 Annual Meeting in Cologne. It turned out that the quality of the input data was not sufficient, that important parts of ICD-10 were missing and that the granularity of the XML structure was too coarse for a good presentation of the classification. Thus, the work on the electronic version of ICD-10 was based on the SGML files of the English Tabular List and Alphabetical Index available at DIMDI. Details are available in the report mentioned above.

Meanwhile, the following parts of the electronic version are available:

Volumes I, II and III are available in pdf format for printing by WHO. Furthermore, the pdf files have been linked together via ICD codes by Dr. Albrecht Zaiß (Department of Medical Informatics, University of Freiburg) in an ICD-10 browser.

The Tabular List is available in HTML format on our web server (restricted to WHO and WHO-FIC centers).

Codes and titles with links to the ICD-10 blocks and chapters and links to the Special Tabulation Lists are available (so-called metadata). They can easily be imported into a relational database.

Plain ASCII files with the text of volumes I and III are also available. An ASCII file of Volume II is under preparation.

Still under preparation is a database version of the classification.

All files are available from the web pages with restricted access for WHO and Collaborating Centers mentioned above.

ICD-10-XM

In spring 2002 WHO and the 2002 planning group for the Center Heads Meeting agreed on a new product called ICD-10-XM.

“It was felt that WHO should encourage a harmonizing of clinical modifications, leading potentially to an international clinical modification (e.g., ICD-10 XM) that could be used by countries without their own adaptation as well as encourage convergence among modifications. A first step in this direction would be development of a morbidity meta-database of existing clinical modifications, in conjunction with the Electronic Tools Committee. WHO puts its emphasis on this product to build a WHO database and maintain it. This will be done using XML versions of existing ICD modifications. This version will serve as a business application for reimbursement schemes.” (Meeting Summary)

Work on ICD-10-XM will be very much related to the electronic version of ICD-10. DIMDI has SGML files of the English, French and German versions of the Tabular List with identical structure and offers to merge them by ICD codes as a starting point both for an electronic version of ICD-10 and for ICD-10-XM. It is essential to agree on a data structure for ICD-10 to make sure that the Collaborating Centers can work with the files. The chair has contacted members of the ETC from the French, Nordic, UK and US centers to provide files for chapters II and XI as they are used to produce, maintain and publish ICD-10. This material will be analyzed and used for a discussion to agree on a common data structure for the Tabular List.

Papers

The following papers have been developed by Committee members so far:

1. Stahl C, Walker SM, Garrett C, Truran D, Roberts R, Schopen M: Electronic Maintenance of Clinical Classifications: Comparing Two Approaches. WHO/GPE/ICD/C/00.33
2. Rosenberg HM, Kochaenk KD Minino A: Update: International Collaborative Effort on Automating Mortality Statistics. WHO/GPE/ICD/00.70
3. Casey R, Hargreaves J: Mortality and Morbidity Data Dissemination Via Interactive Data Cubes – a new initiative. WHO/GPE/CAS/C/01.63
4. Berglund DJ, Fisher LJ: Developing a Database Version of the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Clinical Modifications (ICD-10-CM). WHO/GPE/CAS/C/01.65
5. Schopen M, Pavillon G, Pickett D: Dissemination Policies for ICD-10. WHO/GPE/CAS/C/01.23
6. Caulfeild D, Renahan M: Development of ICD-10-CA and CCI in Database Format. WHO/GPE/CAS/C/02.36
7. Jakob R: Data restructuring for the German translation and the maintenance of ICD-O-3 WHO/GPE/CAS/C/02.42

8. Schopen M: Consistency Checks for the Maintenance of ICD-10.
WHO/GPE/CAS/C/02.43
9. Schopen M, Nelson SJ: ICD-10 and the Unified Medical Language System (UMLS),
WHO/GPE/CAS/C/02.44
10. Innes K, Saad P, Roberts R: Modelling ICD-10-AM. WHO/GPE/CAS/C/02.65

Appendix A

Terms of reference

The purpose of the committee is to support WHO and the WHO Collaborating Centres for the Classification of Diseases in developing policies on electronic classification tools and their dissemination. This will include:

1. Agreement of the scope and definition of 'electronic tools'
2. The committee should cover both tools which are only for morbidity or mortality as well as ones with a more general application
3. Working closely with other classification work groups, such as the Training group, on overlapping areas
4. Liaison with other organizations/groups working in electronic classification such as the ICE on automating mortality statistics and the Eurostat automated coding group
5. Establishing criteria for the evaluation and accreditation of electronic classification tools
6. In some circumstances, evaluating such tools on behalf of WHO, or overseeing such evaluation
7. Surveying existing tools and identifying gaps and pressing needs for tools

Appendix B

A Framework for ICD-Related Electronic Tools

Electronic Versions of ICD-10

- Electronic Index
- ICD-10 Metadatabase System
- Web-Version of ICD-10
- WHO Multilingual CD-ROM

Automated Cause Coding Systems (Mortality)

- ACME – MICAR100 – MICAR200 – SuperMICAR – Transax
- Styx
- SCB
- DECES
- Mikado

Other Applications

- PesqCID
- Hospital Encoding Systems
- WHO Multilingual CD-ROM
- Crosswalks
- Relation/Mappings to other vocabularies (UMLS, Galen, Read-Codes etc.)
- Software for validation, aggregation, tabulation, retrieval

Electronic Training Tools

- TENDON (several languages) and other
- INTERCOD
- Training material in electronic form (NCHS)
- Need for representation format for training cases as basis for a knowledge base

Data Capture Tools

- Electronic Death Registration and Certificate
- Cancer Registration
- Data Entry Systems for Hospitals
- Data Entry Systems for Primary Care

Analytic Tools

- Geographical Information Systems
- Statistical Data Dissemination Systems

Dissemination and Communication Tools

- Web-Sites
- Majordomos
- Literature on the ICD

Other Tools

- Assembly in Health Record
- Optical Character Recognition and Vocal Capture