WORLD HEALTH ORGANIZATION

WHO/HST/ICD/C/97.65
Distr.: LIMITED
ENGLISH ONLY

MEETING OF HEADS OF WHO COLLABORATING CENTRES FOR THE CLASSIFICATION OF DISEASES

Copenhagen, Denmark
14-20 October, 1997

REPORT

Table of Contents

1. Opening of the meeting 3

2. Election of officers 4

3. Consideration and adoption of the agenda 5

4. WHO Long-term Strategy for the Development and Management of Health-related Classifications 5

5. Implementation of ICD-10 11

5.1 Current situation 11
5.2 National (language) versions 11
5.3 Training 12

5.3.1 General 12
5.3.2 Mortality 12
5.3.3 Morbidity 12

5.4 Copyright and royalties 12

6. Family of classifications 13

6.1 Classification of medical procedures 13
6.2 International Classification of Impairments, Disabilities, and Handicaps 14
6.3 Lay reporting of health information 15
6.4 Specialty-based adaptations of ICD-10 15
6.5 Primary care classifications 15
6.6 International Classification of External Causes of Injuries 16

7. Maintenance and updating of ICD-10 17

7.1 Updating between revisions 17
7.2 Dissemination of updates 19
7.3 ICD-11 20

8. Computerized coding 20

8.1 Automatic coding of mortality 20
8.2 Computer-assisted coding software 21

9. Short tabulation lists 21

10. Dagger and asterisk system 21

11. Improvement of health information 22

11.1 Mortality 22
11.2 Morbidity 24

12. Bridge coding and equivalence tables 25

13. Special studies 26

14. Reports of activities 26

14.1 Reports of activities of the WHO Collaborating Centres for the Classification of Diseases 26

14.2 Report of HST classification-related activities 27

15. Other business 27

15.1 Additional matters 27
15.2 Place, time, theme and agenda for next meeting 28

Action summary 28

Annex 1 Updating Mechanism for ICD-10 32
Annex 2 Procedures for Meetings of Heads of Collaborating Centres for the Classification of Diseases 35
Annex 3 Long-term Strategy for ICD Development and Implementation: An Essential Partnership 38
Annex 4 Actual and Proposed Implementation Dates for ICD-10 42
List of participants 44
List of documents 50

1. Opening of the meeting

Professor Björn Smedby, Head of the WHO Collaborating Centre for the Classification of Diseases for the Nordic Countries welcomed participants to the meeting. He pointed out that the Nordic Centre was organized on a different basis to the other Centres in that it is a multilingual centre based on the regional principle with financial resources being provided by the five Nordic countries: Denmark, Finland, Iceland, Norway and Sweden. The Centre was created some 10 years ago and had grown out of a longstanding collaboration on classification matters between the Nordic Medico-Statistical Committee (NOMESCO) and the World Health Organization (WHO). The Centre has an independent board consisting of one representative from each country appointed by the national health authorities. The Nordic Centre had hosted the 1988 meeting in Uppsala, Sweden. For the present meeting it had been decided to organize the meeting in one of the other Nordic countries in order to emphasize the multinational character of the Centre. He thanked the staff of the Danish National Board of Health for their impressive work in setting up the infrastructure for the meeting.

Professor Smedby reminded participants that following discussions at the 1996 meeting in Tokyo, Japan regarding WHO support to international health-related classification activities there had been creative discussions between the Centres Heads themselves and between the Centre Heads and the secretariat in WHO. He said that the WHO long-term strategy document on health-related classification activities which had been produced as a result of those discussions would be considered in more detail by the meeting, and would become very important for the future work of WHO and the Collaborating Centres.

Professor Smedby then introduced Dr. Gunnar Schiøler, Chair of the Board of the Nordic Centre and of NOMESCO and the representative of the Danish National Board of Health. Dr. Schiøler welcomed participants on behalf of the Danish National Board of Health. He informed participants that the Nordic Centre did not limit its activities to the five Nordic Countries but also provided support to the three Baltic States of Estonia, Latvia and Lithuania. The fact that the Nordic Centre was located at the University of Uppsala in Sweden was considered to be particularly appropriate as it was there that Linnæus had published his Genera Morborum in 1763. The academic roots in terms of classification were, therefore, secure and with the expertise of the Nordic Centre so was the future. He wished participants a fruitful meeting and a pleasant stay in Copenhagen.

Ms. Carolyn Murphy welcomed participants on behalf of Dr. J. E. Asvall, Director of the WHO Regional Office for Europe. Ms. Murphy informed participants that the International Classification of Diseases (ICD) was one of the most important and widely known of WHO's normative functions in the Region. Over recent years the number of Member States in the Region had increased from 32 to 51 and the ICD was an essential component in efforts to narrow the gap in health status which existed between the Member States. The use of comparable health statistics was important to European countries which continued to urge WHO to increase its efforts in this field. Progress was only possible through the continuing work of the Collaborating Centres which was reflected in the heavy agenda for the meeting. On behalf of the Regional Director, Ms. Murphy wished participants every success for the meeting.

The meeting was then officially opened by Dr. H. R. Hapsara, Director of the WHO Headquarters Division of Health Situation and Trend Assessment (HST) on behalf of Dr. Hiroshi Nakajima, Director-General of WHO.

In his opening address Dr. Hapsara expressed the appreciation of the secretariat for the central role played by Professor Smedby and his colleagues at the Nordic Centre and Dr. Schiøler and his colleagues at the Danish National Board of Health in Copenhagen in organizing the meeting and coordinating the accommodation, invitations and documentation. He referred to the fact that at the Tokyo meeting in 1996, Centre Heads had expressed their concern at the reduced resources available within WHO to support classification-related activities. In recognition of their role to assist WHO with the articulation of a vision and a strategy for the future development and implementation of international classifications in both developed and developing countries, the Centre Heads had urged reaffirmation of WHO's commitment to provide leadership for the classifications of diseases and the provision of resources commensurate with the strategic importance of the task. At the Ninety-ninth session of the WHO Executive Board in January 1997 the ICD was discussed and the WHO secretariat was asked to place greater importance on health-related classification activities. Funds were subsequently made available and two temporary advisers were recruited to assist the secretariat with the elaboration of a draft WHO Long-term Strategy for the Development and Management of Health-related Classifications. That draft strategy was presented to the meeting as a basis for discussion and Dr. Hapsara thanked all the Centres that had taken the time to provide comments and recommendations as input to the development of the draft strategy. He expressed the hope that by the end of the meeting firm recommendations could be agreed as proposals to WHO senior management for further consideration and action.

Dr. Hapsara expressed his satisfaction that representatives of three of the six WHO Regional Offices were able to attend the meeting and that, for the first time for many years, all ten Heads of Centres were able to be present. He wished participants a successful and rewarding meeting.

2. Election of officers

As has become the custom at the annual meetings of Heads of WHO Collaborating Centres for the Classification of Diseases, the Head of the host institution, Professor Björn Smedby was invited to act as Chairperson.

In view of the heavy agenda before the meeting, it was felt that a greater number of vice-chairpersons than usual would be required. With the agreement of the participants, Dr. A. J. Fox, Ms. M.S. Greenberg, Professor R. Laurenti, and Mr. G. Pavillon consented to fulfil this role.

Ms. E. Taylor was appointed as rapporteur, assisted by Mrs. L. Campbell, Dr. S. Cole, Mrs. D. Pickett, Mrs. S. Walker and the secretariat.

3. Consideration and adoption of the agenda

In order to ensure that sufficient time was available to enable appropriate discussion of all the important technical documents, it was agreed that the meeting would, first of all, consider item 8 of the draft agenda (WHO Long-term Strategy for the Development and Management of Health-related Classifications) and that presentation of the reports of the activities of the Collaborating Centres and the secretariat (item 4 on the draft agenda) would be deferred until the morning of 17 October. The agenda was renumbered to reflect this change in the order. The remainder of the agenda was adopted as presented.

4. WHO Long-term Strategy for the Development and Management of Health-related Classifications

The first two days of the meeting were devoted to the discussion of a long-term strategy for the development and management of the ICD and related classifications as introduced to the meeting by the secretariat in document WHO/HST/ICD/C/97.39. In addition to the formal discussions during the meeting, there were also some smaller working groups which met and brought their recommendations back to the full meeting. The results are summarized in this report and in annexes to it as noted.

All participants welcomed the support expressed at the WHO Executive Board meeting in January 1997 for WHO's core normative functions in relation to the ICD. They further welcomed the decision by Dr F. Varet, Assistant Director-General, that a long-term strategy be prepared. The participants warmly thanked Director, HST, his staff, and consultants Robert Israel and Elizabeth Taylor for preparing the draft strategy as a basis for the meeting's discussion of long-term strategy issues.

The meeting first discussed the HST paper in general. Participants congratulated the authors on the breadth of issues raised and the thoughtful proposals in the paper. Next, there was an analysis of WHO's ICD customers, what services were required by those customers, how the customers were changing over time, and what needed to be provided to satisfy their demands. A broad range of customers was identified including: public health programs and officials; the private sector; policy makers; researchers in universities and in public health programs (e.g. epidemiologists); software suppliers; physicians; those involved in the financial aspects of health care delivery, including insurance companies; patients and their representatives; the general public; medical coders; the media; pharmaceutical companies and medical device manufacturers; professional associations; the armed forces; national health statistics systems; legal systems; and national social security systems.

This analysis led to a discussion of resource requirements and availability across all participants, and how the participants should work, as a partnership, in the future.

The conclusions of the general strategic discussion were summarized as follows:

- the ICD programme is vitally important to a diverse range of customers the ICD programme is vitally important to a diverse range of customers and is used on a day-to-day basis;

- the world is changing rapidly, with many impacts on health and health information, and these will place many new demands on classifications;
- much will need to be done over the next few years if the position of ICD is to be maintained and protected; and
- improved ways of working must be found if success is to be achieved. These include:
  - working more effectively and efficiently together;
  - managing and coordinating the programme so that promises are delivered upon;
  - working with others who have the right skills and a common agenda; and
  - acquiring and developing new resources and skills.

- HST, Collaborating Centres, Regional Offices, and national and specialty groups must work in partnership and commit themselves to a common workplan..

Meeting participants unanimously accepted these conclusions.

It was then agreed that the discussion on the future strategy should proceed on three questions:

- What ICD-related work do we need to do?
- How will we get the work done?
- How are we going to work together in the future? (including the definition of the roles and responsibilities of those present)

This discussion led into the development of a work plan for the activities.

What ICD-related work do we need to do?

A list of possible tasks was identified by meeting participants. After discussion, it was agreed that these tasks should be considered as short, medium or long term, and as high, medium or low priority. After this exercise was completed, the three highest priority, short term tasks were then addressed:

1. Promoting and implementing ICD-10
2. Updating
3. Family of Classifications

1. Promoting and implementing ICD-10

The first high priority, short term task is to promote implementation of ICD-10 worldwide. A few countries have already implemented in full. In many others, implementation is complex as automated coding systems have to be adjusted, new extended classifications developed, linkages to ICD-9 mapped, and new national medical procedure classifications put in place.

Automated mortality systems issues are being addressed by establishment of a users group proposed by the United States National Center for Health Statistics. The meeting welcomed and endorsed this initiative.

It was agreed that sharing information on experience in implementing ICD-10, as well as making tools for training and implementation available, should be encouraged. Quality control was recognized as an important feature of implementation that should be incorporated into all promotion activities.

The Heads of Centres expressed concern about the many parts of the world, including countries in Africa and Asia, where the ICD is not currently used and considered promotion of the ICD and a health information infrastructure in these areas as important activities for WHO and the Regional Offices. It was suggested that Regional Offices consider surveying countries in their regions to identify barriers to implementation (including resource and skills requirements). Each Regional Office should have some capacity to address the resource and skills needs, perhaps with the assistance of national groups. HST and the Collaborating Centres should consider to what extent they could contribute to the effort.

2. Updating

Although the Centre Heads had discussed the updating mechanism for ICD-10 at previous meetings and suggested procedures and timetables, they agreed that the updating mechanism needed to be formalized and implemented. The HST strategy had proposed creation of an Update Reference Group. Papers from the North American and Nordic Centres had proposed establishing a Nosology Reference Group, based on international work already begun on automating mortality data. A working group was established by the meeting to consider the various proposals and to report back to the meeting.

The working group proposed an Update Reference Committee of no more than 20 members drawn from clinicians, nosologists and users of statistics, with a balance of mortality and morbidity expertise. This committee would finalize recommendations for submission to Centre Heads' meetings. The Committee would be supported on mortality matters by a Mortality Reference Group of 10-15 expert members. The Mortality Reference Group would make decisions on the application and interpretation of the ICD, and make proposals for changes to the classification and the associated rules to the Update Reference Committee. On the morbidity side, proposals to the Update Reference Committee would come from Collaborating Centres, to whom national offices and other users could refer problems.

The proposal by the working group, which incorporated features of the HST proposal and those of the North American and Nordic Centres, was endorsed by the meeting and is shown at Annex 1. It was recognized by the Heads of Centres that successful implementation of the updating mechanism would require a substantial commitment of resources by both the Collaborating Centres and the secretariat.

Recognizing the urgency of operationalizing the new updating mechanism, nominations for membership on the Mortality Reference Group and the Update Reference Committee were requested from each Collaborating Centre within the next month. The Nordic Centre recommended that these be forwarded to the secretariat who would consult with the Centre Heads regarding the composition of the committees to ensure a workable size and an appropriate mix of skills. It was noted that HST will chair the Update Reference Committee and appoint a chairperson for the Mortality Reference Group.

The HST draft long-term strategy had proposed an evaluation of the new updating arrangements after three years experience. This was endorsed by the meeting and the Heads of Centres committed themselves to work with HST in the development of an evaluation plan by the end of their 1998 meeting.. It was agreed that no consideration should be given to ICD-11 until after this evaluation was undertaken and the results considered by the Centre Heads.

The meeting recognized the importance of copyright for version control. At the same time, there was strong support for the statement in the HST paper that Internet publication of the ICD and associated updates and clarifications was a highly desirable objective. The meeting concurred with the need for the development of equitable access policies and for an internal review by WHO of pricing and distribution activities in view of electronic dissemination. It was suggested that the results of this review should be reported back to the Centre Heads at their next meeting.

3. Family of Classifications

The HST paper recommended clarification and affirmation of the parameters for inclusion in the family of classifications and adoption of guidelines for prioritizing work on family members. Based on previous discussions, possible candidates included specialty-based adaptations, the ICIDH, and primary care and procedure classifications. The meeting agreed that this was a high, short-term priority but one that could not be accomplished during this meeting. The Heads of Centres believed that the parameters for inclusion in the family of classifications must be revisited and refined by the Collaborating Centres and HST within the coming year. Once this had been accomplished, they believed that adoption of guidelines for prioritizing work on family members could be undertaken. It was noted that the secretariat currently must devote significant resources to the review of these various classifications to assure consistency with the ICD.

How will we get the work done?

The following actions/mechanisms were identified by the meeting and assigned a high priority for the short and long term:

- investigating ways to find additional funds
- working with Regional Offices and through them with national groups
- establishing appropriate communication networks and proactive mechanisms for anticipating issues
- coordinating mechanisms
- sharing experiences through: developing a morbidity network; promotion of joint processes; further international collaborative efforts (ICE); EUROSTAT initiatives; and enhancing the mortality network

The need for new collaborating centres was raised on several occasions. A German-language Collaborating Centre was seen as a natural and necessary extension of the existing network

which should proceed quickly. The development of a mechanism for deciding on the need for additional centres was identified as a medium priority in the longer term.

How are we going to work together in the future?

It was noted that the number of Collaborating Centres and the number of participants at annual meetings had grown significantly. There was consensus that the nature of future meetings needed consideration.

A working group of Centre Heads was convened to discuss revised procedures for future meetings. The proposals developed by the group were brought back to the meeting and adopted. They appear as Annex 2. These new procedures replace the relevant decisions from the 1990 London, 1991 Sao Paulo and 1995 Canberra meetings.

Roles and Responsibilities of HST, Collaborating Centres and Regional Offices

It was agreed that HST must retain a core role in the ICD. First, it is the ICD proprietor, and must retain ultimate responsibility for approval of updates, technical standards, and copyright issues. Second, HST must promote the ICD family globally, and assist or facilitate the implementation of ICD-10**.** Third, the ICD is an essential infrastructure within WHO for the description of the global health situation and trends. Fourth, there is the need to coordinate the activities of Collaborating Centres and Regional Offices.

It was noted that Collaborating Centre roles vary and that the contract each Centre has with WHO reflects this. Several are language based. Others focus on the development of tools (ICE and the EUROSTAT project) or focus on the provision of training in the ICD for neighbouring countries. (The secretariat agreed to provide copies of the terms of reference of the ICD Collaborating Centres to all Centres for information.)

In relation to classification, it was noted that the WHO Regional offices mainly focus on promotion of the ICD within the countries of their Region, and on the provision of training.

HST Resources

The meeting noted the opportunities for Collaborating Centres to assist with the essential ICD work programme. It was agreed, however, there was a clear need for expanded resources within HST for ICD work, and for the provision of support from other areas of WHO, notably with information technology and publications responsibilities.

The HST draft strategy paper for the meeting suggested a minimum of three core staff to support ICD functions: two Technical Officers, one of them in a supporting role to the existing Technical Officer; plus full time secretarial support.

The additional Technical Officer was seen by the meeting as essential, not just to meet the heavy workload, but also to reduce the major risk currently posed by having so much unique knowledge of the ICD centred in just one person. It was recognised that this position had arisen

through the accident of staff attrition patterns, but quick remedial action was considered crucial. It was agreed that even the recommended level of staffing would need to be supplemented with consultant assistance. In the discussion, the reliance of a broad range of HST functions on the ICD was highlighted by the Director HST who stressed that even with the minimum of three staff being sought, it might still be difficult to provide essential support.

Centre Heads recognised that, no matter the need, the WHO budget situation was tight. To highlight the need for action and support by senior WHO management, each Centre outlined the resources it contributed to its ICD responsibilities. These resources were substantial, with several Centres identifying a commitment of two or three full time equivalent specialist positions working on ICD matters over and above the effort associated with ICD implementation and support within their own country.

Conclusion

All Collaborating Centres welcomed the opportunity provided by WHO for a free and extensive discussion of the long-term strategy for ICD implementation and development, and for the paper prepared by HST to commence and lead the discussion.

The meeting identified essential tasks needed to support the ICD and developed detailed proposals: to move forward on the updating of ICD-10; for the conduct of future meetings of Heads of Collaborating Centres; and for ongoing discussions between meetings.

There was unanimous support for an immediate increase in HST resources devoted to ICD matters to three full time staff, and strong concern at the risks involved in the current reliance on a single individual. Centre Heads urged WHO senior management to address this matter as soon as possible and will brief their country delegations on the need for decisive and immediate action.

Centre Heads committed themselves to additional effort, over and above the significant support already being provided, to progress essential ICD work beyond their own countries. Promotion and assistance for ICD-10 implementation globally, for updating, and for the development of essential tools, were seen to be of particular importance.

It was agreed that the key role of Regional Offices in ICD-10 implementation needed to be recognized in all regions, and assistance with this role from HST and the Collaborating Centres was considered important.

All Collaborating Centres urged HST to develop its long-term ICD strategy to incorporate the conclusions and proposals of the Copenhagen discussions on the strategy, and offered to comment on the strategy at all stages of its development and progress from here on.

As a demonstration of their commitment, all Collaborating Centre Heads signed a document summarizing their position on the essential partnership for long-term ICD development and implementation. This appears as Annex 3.

5. Implementation of ICD-10

5.1 Current situation

The secretariat provided details of the latest situation regarding the implementation of ICD-10 by WHO Member States for mortality and morbidity purposes. A total of 38 countries had announced actual or planned implementation dates. The Centres and the Regional Offices were asked to provide the secretariat with any further information they may have. The revised list is shown as Annex 4 to this report.

5.2 National (language) versions

The Sao Paulo Centre reported (WHO/HST/ICD/C/97.20) on the implementation of ICD-10 in Brazil. Volumes 1 and 2 of ICD-10 in Portuguese were published in 1994 and Volume 3 in March 1997. Some adjustments to the alphabetical index had been necessary to accommodate the varying terminology usage in the Portuguese language in different countries. Training had been carried out since 1994 using materials based on information taken from Brazilian death certificates. An amount of additional didactic material had also been prepared. The ICD-10 had been used in Brazil for mortality since 1996. It will be implemented for morbidity in 1998, supported by the use of self-training material and cascade training. ICD-O-2 was reported to be in use by Brazilian cancer registries. While ICD-DA (the application to dentistry and stomatology) had been published in Portuguese, there was no information available on the degree of its use.

A report (WHO/HST/ICD/C/97.46) from the Australian Centre on the implementation of ICD-10 in New Zealand was tabled for the information of the meeting.

The North American Centre (WHO/HST/ICD/C/97.35) provided the meeting with details of progress with the development of the United States clinical modification of ICD-10 (ICD-10-CM). This will be a six-character classification in order to accommodate the great number of changes and additions that had been suggested. The tabular list and the crosswalks between ICD-9-CM and ICD-10-CM will be made available for public review and comment in November 1997. The final version was expected to be available in March 1998 and should come into use on 1 October 2001. The North American Centre agreed to provide meeting participants with the November 1997 review version (i.e. without the alphabetical index) upon request.

There was some discussion regarding the handling of the laterality of neoplasms in the ICD-10-CM as compared with an approach used in Denmark. It was noted that there should be limited impact on ICD-10 with respect to possible future updates on the basis of the ICD-10-CM.

5.3 Training

5.3.1 General

The Australian Centre (WHO/HST/ICD/C/97.47) provided details of training that had been given to health personnel from Thailand, Nepal, Myanmar, Indonesia, Sri Lanka, and the

Maldives as well as on other activities involving the Philippines and the People's Republic of China. Specific mention was made of the challenges inherent in teaching people whose language is not English in order to make it both linguistically and culturally applicable.

5.3.2 Mortality

The North American Centre (WHO/HST/ICD/C/97.36) updated the meeting on efforts to improve the quality of certification of causes of death in the United States. These included detailed manuals directed to physicians (copies available from Dr. Rosenberg at hmr1@cdc.gov) and information on completing the cause-of-death portion of the certificate available on the National Association of Medical Examiners (NAME) home page (www.thename.org). Mention was also made of the continuing work on the electronic death certificate with a module to instruct physicians as they complete the certification. At present, the electronic certificate provides for data entry by the certifier with the medical coding being done centrally. It was noted that a long-term goal is on-line coding and editing of the electronic certificate. During the discussion, the North American Centre agreed to make the electronic certificate module available to other Centres through the NCHS home page.

It was noted that although there has been no formal evaluation of previous efforts to train the physicians in the United States, analysis had shown that aggregate indicators (i.e. the proportion of certificates assigned to symptoms, signs and ill-defined conditions and the average number of causes per certificate) had improved over time.

With respect to issues of confidentiality in relation to the electronic death certificate, these were expected to be handled through specific procedures at the level of state offices such as the use of an intranet in the state of New York.

The meeting was informed of the Moscow Centre's plans to carry out mortality training later in 1997.

5.3.3 Morbidity

There were no papers relating to this agenda item.

5.4 Copyright and royalties

The secretariat informed the meeting that WHO was vigorously enforcing its copyright in the English and French language versions of ICD-10 and associated applications. Agreements had been signed with a number of Member States allowing the use of ICD-10 within the jurisdiction of the country for government purposes. Commercial applications required separate licences. While royalty agreements were often based on a percentage of sales, WHO was also prepared to negotiate a fixed sum for each licence to avoid the need for constant follow-up of periodic payments. Large software companies had been particularly cooperative but some smaller companies had been less forthcoming in providing details of the price of their products and the volume of sales. Some non-exclusive global licences had been signed with software companies

before national licences had been agreed with Member States. This had not, as yet, created any conflict but it was not impossible that legal problems might arise in the future. The WHO Division of Publishing, Language and Library Services (PLL), for whom the copyright issue had created a significant workload, would liaise with the Office of the Legal Counsel in order to resolve eventual disputes.

6. Family of classifications

6.1 Classification of medical procedures

The North American Centre provided background information (WHO/HST/ICD/C/97.33) related to the development of the new Canadian Classification of Health Interventions (CCI) and described some of its key features. The CCI is an attempt to develop a procedure classification that extends to all interventions/services regardless of service provider or service setting. It will be used as a companion to ICD-10 in Canada.

With respect to an international classification of medical procedures, the Revision Conference in 1989 had reviewed work done by the secretariat on a tabulation list for procedures that had been developed to serve as a guide for national presentation or publication of statistics on surgical procedures and which could also facilitate intercountry comparisons. The aim of the list was to identify procedures and groups of procedures and define them as a basis for the development of national classifications, thereby improving the comparability of such classifications. The Conference agreed that such a list was of value and that work should continue on its development, even though any publication would follow the implementation of the Tenth Revision. Questions had been raised since that time, however, about plans to update the International Classification of Procedures in Medicine (ICPM) or to develop a new international procedure classification. There was a perceived need for a classification for countries which had prepared national-language versions of the ICPM and now needed an updated classification.

In view of the fact that a number of countries and regions had developed their own procedure classifications, the question was raised to the meeting as to whether WHO should prepare an international procedure classification, particularly in view of the shortage of resources in HST and the fact that the Galen-in-use project (details of which were presented to the meeting) planned to offer a multilingual common reference model for describing procedures and mapping of national classifications to this common framework.

The meeting agreed that no international work should be done on a procedures classification at this time. However, since many countries now have no modern classification of procedures, mechanisms need to be found to make some or all of the new national classifications available to a wider range of countries. Regional Offices could assist in facilitating this process. It was agreed that the secretariat should request the Regional Offices to contact Member States to determine their needs but not to imply that an international procedure classification would be provided. A decision could then be taken within WHO regarding a taxonomic approach as a framework for national procedure classifications as mentioned in the long-term strategy paper as a part of the HST work plan through 1999.

It was agreed that HST should continue its role as a clearinghouse for information on available national procedure classifications. Collaborating Centres were noted as an important resource for assisting countries to develop national classifications relevant to their health care systems and any case-mix activities.

6.2 International Classification of Impairments, Disabilities, and Handicaps

The secretariat reported on a meeting for the finalization of the beta draft of the International Classification of Impairments, Disabilities, and Handicaps (ICIDH-2), which was held in Geneva in April 1997. (The secretariat agreed to make the full report of the April meeting as well as a copy of the beta-1 draft of the classification available to participants of the Centre Heads meeting. The draft is also available on the Internet through the WHO home page.) The purpose of the Geneva meeting was to finalize the beta draft, to revise the timetable of future work on ICIDH-2, and to finalize the field trial protocols. The comments sent in on the 15 basic questions were taken into account in the preparation of the beta version to be used in phase 1 of the field trials. The process continues to include representation from the disability community. Of particular interest to all involved is the choice of terminology which can vary from language to language. This has resulted in a change to the working title of the classification (International Classification of Impairments, Activities and Participation) although it continues to use the acronym ICIDH-2. The first phase of field trials will end in December, 1997. The results of this qualitative analysis will be completed by March, 1998. Phase 2 of beta testing will take place in 1998 and will examine the validity, reliability and feasibility of data collection. The next international meeting for ICIDH will take place in Japan in March, 1998.

A report (WHO/HST/ICD/C/97.34) from the North American Centre described the chronology of the revision process and the North American contribution to it. The North American Collaborating Centre will develop French and Spanish versions of ICIDH-2 to be used in field trials currently underway. In the discussion that followed, concern was expressed in relation to the lack of additional translations for non-English speaking countries. This lack had essentially prevented participation in phase 1 of the field trials.

A subgroup of the meeting conducted further discussions regarding the appropriate relationship between those working on the ICIDH and the ICD Centre Heads group. The subgroup noted the complementary nature of the ICD and the ICIDH. Improved definition of the relationship of the structure, use, and application of the two classifications would promote the acceptance and facilitate the implementation of the revised ICIDH.

It was further noted by the subgroup that some of the terminology used, for example, in the Impairments dimension of the ICIDH, relates closely to that used in the ICD and that these common terms should be clearly identified. The second phase of the field trials of ICIDH-2 will present an opportunity to investigate and define the links between the two classifications. A formal relationship between the groups with responsibility for the ICD and the ICIDH, including the sharing of work plans and timelines was recommended by the subgroup and accepted by the meeting.

The Australian Centre which, like the North American Centre, has responsibility for both the ICD and the ICIDH asked for and received assurances that none of the recommendations would delay the progress of the ICIDH revision process. It was felt that the intent of the work was to clarify the position of the ICIDH in relation to the family of classifications and that this should be completed within the timelines of the planned field trials and the proposed schedule for completion of the ICIDH revision process.

6.3 Lay reporting of health information

The Sao Paulo Centre presented a paper (WHO/HST/ICD/C/97.22) on lay reporting. It concluded that a special classification for lay reporting was unnecessary, and that the core ICD classification was sufficient. Groupings could easily be made by ICD chapter. This advice was welcomed and endorsed by the representatives of one WHO Regional Office and one national group in attendance at the meeting. It was also noted, however, that provision could be made for epidemiological surveillance. The importance of not tabulating information from lay reporting and clinical reporting together was stressed.

6.4 Specialty-based adaptations of ICD-10

The secretariat reported on new speciality-based adaptations of ICD-10:

- the Third Edition of the Application of ICD-10 to Dentistry and Stomatology (ICD-DA) in French, which was published in August 1997;
- the Second Edition of the Application of ICD for Neurology (ICD-NA), which was published in English in October 1997; and
- a Third edition of ICD-O (ICD-O-3), preparation of which should be deferred until the suggested amendments from the United States National Cancer Institute could be compared with those from the International Agency for Research on Cancer (IARC). This comparison should be possible after an IARC meeting in March 1998. The consequence of this delay is that publication of ICD-O-2 in French will now not take place, instead ICD-O-3 in English and French will be published simultaneously.

6.5 Primary care classifications

The secretariat reported on a new publication from the WHO Division of Mental Health and Substance Abuse called Guidelines for Mental Disorders in Primary Care - Diagnosis and Management. The publication is accompanied by a series of training pamphlets. The meeting noted this publication.

The Nordic Centre presented a paper (WHO/HST/ICD/C/97.30) on a primary care classification that was in wide use in primary care computer systems in Sweden. This classification, which is based on ICD-10, exists as a tabular list without an index. In the discussion that followed references were made to the International Classification for Primary Care (ICPC), which is in use in several countries. The secretariat informed the meeting that a

second edition of ICPC (ICPC-2) had been prepared and referred to HST for comment and endorsement.

The meeting noted that the Collaborating Centres had not yet had the opportunity to review the ICPC-2 and, therefore, it would be inappropriate to accept it into the Family of Classifications at this time. The meeting agreed, however, that HST should attempt to influence the comparability of ICPC-2 and ICD-10 through mapping, based on the confidential copy supplied to it.

HST provided clarification that it sought the approval of the Centre Heads for the writing of a foreword for ICPC-2, whilst falling short of formal endorsement. There was agreement that the foreword could appear under the signature of Dr Hapsara on behalf of WHO and that it should highlight the differences in structure between ICPC-2 and ICD-10.

6.6 International Classification of External Causes of Injuries

The secretariat reported on efforts by the WHO Unit of Safety, Promotion and Injury Control (SPI) to develop an International Classification of External Causes of Injuries (ICECI). The goal of the WHO project is to offer the world injury prevention community basic guidelines and standards for the structure and content of injury and violence surveillance systems. These guidelines and standards will be:

- based upon best practice in classifying along the various relevant dimensions. Therefore they will be multi-axial in structure and hierarchically subdivided.
- flexible in their implementation, according to data needs, available resources and the capacity to obtain data in different health care settings; and
- fully compatible with and collapsible to ICD-10

The WHO action plan for the ICECI allows a three year process for development, testing and actual implementation. The operational plan aims at having available by the end of 1997:

- an overall set of descriptions and definitions relevant for surveying injuries and violence; a glossary and guidelines for their application in injury surveillance;
- descriptions and a set of definitions of different types of violence; a nomenclature of violence and a framework for its classification;
- a well-documented and well-expounded classification for all injuries, focusing on the basic data elements such as injury mechanism, injury type, intent, injury activity and place of injury.

This should allow the WHO Working Group and the world injury prevention community in the following year (1998), to:
- test the set of glossary, nomenclature and injury classification on aspects such as completeness, validity and consistency; and to
- develop structures for implementing these guidelines and standards in their own surveillance practice.

The overall process will be monitored and guided by a steering group acting under the supervision of WHO. The steering group will consist of the leading centres in the field of injury and violence surveillance and will designate the tasks and assign staff to the technical working groups. The WHO Working Group will act as an oversight body and provide technical consultation.

The ICECI group will liaise with international bodies and experts in the domain of traffic safety, consumer safety, and occupational safety, as well as with more specific interest groups such as those involved in the prevention and control of burn injuries, head injuries, and toxic exposure. It is intended that links be maintained during the process with HST and the ICD Centre Heads as well as with related specific classifications such as the ICIDH.

In May 1998 the ICECI, its core data elements, the violence nomenclature and further plans for 1998/1999 will be presented at the fourth World Injury Conference in Amsterdam. Pilot testing will then be carried out and a further report will be provided to the 1998 meeting of Centre Heads. It is expected that a first version will be available for assessment by the Centre Heads in mid-1999.

The North American Centre indicated concern with the draft ICECI concepts that it had seen, particularly regarding the apparent lack of understanding of the rules guiding inclusion into the family of classifications. The meeting requested that HST obtain more information about the proposed classification as soon as possible to circulate to Centre Heads. It was also suggested that there be a more formal link between the working party and the Centre Heads. It was agreed that there should be representatives appointed to serve this function. The Nordic and North American Centres indicated their interest in taking on this responsibility.

7. Maintenance and updating of ICD-10

7.1 Updating between revisions

It was noted by the secretariat that there is a need to provide a viable and working process for the updating of the ICD-10 as recommended at the Revision Conference.

The secretariat presented paper (WHO/HST/ICD/C/97.58) regarding proposals for updating the ICD-10. It was noted that some of these proposals had been presented to the 1996 meeting in Tokyo but had been held over for discussion at this meeting. Many of the index corrections had arisen as a result of the development of national language versions. A number of the proposed changes to the tabular list had been suggested by the Nordic Centre and had arisen from the need to identify prions as agents of infection. The Australian Centre had also presented a number of changes to the tabular list, some of which were determined to be only relevant to the Australian modification (ICD-10-AM), others required further review by HST regarding potential inclusion in ICD-10, and the remainder were presented to the meeting for immediate inclusion in ICD-10. Further recommendations for changes arose from the North American Centre. The secretariat noted that the recommended changes as presented therefore represented some significant changes to the classification. Proposed tabular list changes would also require index modifications as indicated in the document. The Sao Paulo and Caracas Centres noted that a number of the proposed index changes had already been made in the development of their

national language versions. HST agreed that the recommended index changes were primarily for the English language version although some changes might also be needed in the French language version.

The Nordic Centre reiterated the need to show that a process for updating exists and noted that it was prepared to accept the recommended changes, following discussion of each individual proposal. The Australian Centre noted the helpfulness of the 1996 discussions in finalizing its proposals for the 1997 meeting. It also recommended the acceptance of the proposals from the secretariat.

The meeting then considered individually each proposal for change to the tabular list. All proposed tabular list changes were accepted as presented. The Volume 2 changes related to typographical errors only. The changes to Volume 3 were typographical or related to the modifications to Volume 1. The changes to Volume 2 and 3 were, therefore, accepted without discussion.

The North American Centre presented paper (WHO/HST/ICD/C/97.38) regarding recommendations for changes to the alphabetical index noted as a result of preparations for the implementation of ICD-10 for mortality. The Centre also noted that a preliminary version of the MICAR dictionary for ICD-10 had been made available on the NCHS home page. Changes to be made to the ACME decision tables are anticipated in January 1998 and will be circulated for review. The first version of the ICD-10 software will be DOS-based, with the Windows version to follow. The United Kingdom Centre initiated discussion regarding the need for input and international dialogue into the development of the often-complicated ACME decision tables, and how changes in the tables affect international statistical trends. The North American Centre welcomed the discussion and indicated its willingness to be mindful of concerns raised. The Centre noted that the software can now be considered an international resource and therefore it encourages international input into the process (see also agenda item 8.1 regarding an automated systems users group).

The paper (WHO/HST/ICD/C/97.63) was tabled by the Office of the ICD, Japan for the information of the meeting. It contained reactions to the update proposals of several Collaborating Centres circulated during and since the 1996 meeting. (Specific issues raised in the paper in relation to the 1997 proposals by the secretariat had been addressed during the earlier discussion.). The meeting noted its appreciation for the format of the paper and suggested its use as a model for future comments on proposed changes to the ICD-10. The Office of the ICD, Japan noted that, despite international acceptance of the recommended ICD-10 updates, these were unlikely to be implemented in Japan.

7.2 Dissemination of Updates

Discussion was requested by the secretariat regarding the need, and process, for dissemination of the ICD-10 updates to all users of the classification and those responsible for national language versions and specialty-based adaptations. The Australian Centre suggested that each

Centre be responsible for keeping its constituent members (either in language or geographical groups) informed of changes. The Nordic Centre agreed but noted that there are some countries which are currently not allocated to a specific Centre and that this would have to occur if the process were to be successful. HST suggested that a notation could be made on each WHO publication regarding the existence of ICD updates on the World Wide Web (WWW). The secretariat will consider this issue further.

The North American Centre questioned the criteria for referral of morbidity coding issues from the national organizations to Collaborating Centres and ultimately to the new Update Reference Committee. The secretariat indicated that the process would be an extension of what already occurs but that the Update Reference Committee would be able to assist by considering and filtering requests and making recommendations for changes to the secretariat. Future criteria developed by the Update Reference Committee could be made available to Collaborating Centres to assist them to process requests received.

It was further noted that the 15 month lead time between update recommendation and implementation may need to be modified for changes to mortality systems (which operate on a calendar year basis) and morbidity systems (which often operate on a fiscal year basis). The Nordic Centre referred the meeting to the discussions during the Tokyo meeting in which it was decided that implementation dates could be dependent on the update mechanisms operating within each country. The United Kingdom Centre noted the difficulties of changing data collection systems and the reluctance of some jurisdictions to make changes. The Nordic Centre suggested that if updates are published on the World Wide Web groups that wished to make earlier updates should be at liberty to do so. The North American Centre requested that the secretariat put the current version of the index on its ICD-10 home page, complete with annotations to indicate which codes are new and the date from which they were implemented. The secretariat indicated that it would consider this request. The Australian Centre suggested that in disseminating new codes, each code should be accompanied by the code to which it would map in the existing classification.

The meeting, therefore, determined that changes to the index would be effective immediately following the meeting and all changes to the tabular list (and associated index changes) would be effective within 15 months of the meeting. It was noted that new codes should not be used in reporting mortality to WHO for the calendar year immediately following the (October) meeting, but rather should be implemented from the following January. The meeting agreed with the recommendations for disseminating and implementing updates to the ICD as presented and amended.

7.3 ICD-11

The meeting agreed that discussions regarding ICD-11 would be deferred until after the evaluation of the ICD-10 update process which would be done after three years' experience (see also agenda item 4).

8. Computerized coding

8.1 Automatic coding of mortality

The Sao Paulo Centre gave a computer presentation (WHO/HST/ICD/C/97.23) regarding the automated mortality classification system used in Sao Paulo, Brazil. The system consists of a modified version of the Underlying Cause of Death Selection System (SCB-10), composed of two programs: DOSP (Death Certificates of Sao Paulo) and SCBX. In every tenth record the underlying cause is coded both automatically and manually. Comparison of the results allows the SCB-10 system to be continuously improved and facilitates the identification of flaws in the coding of causes of death. It was noted that this batch SCB-10 version can also be used by individual researchers.

The North American Centre reported (WHO/HST/ICD/C/97.31) on the International Collaborative Effort on Automating Mortality Statistics (ICE)which is a collaborative forum that began in 1995 to share knowledge and assist with solving issues of common interest in mortality statistics. It includes facilitation of the change to ICD-10. The first plenary meeting of the group occurred in Washington in 1996, with over 70 participants. Over 20 facilitated group discussions occurred during the meeting, focusing on nosology and training for nosologists, training, decision tables, bridge coding, editing and language version considerations. Two major outcomes of the meeting were:

- a recommendation for a mortality reference group
- a recommendation for an automated systems users group.

It was noted that the first of the recommended groups had already been included in the new ICD updating mechanism (see also agenda item 4). The second recommended group was proposed to assist with reviewing changes to the decision tables used in the automated mortality coding system and to offer system support and expertise in software design. The work of the users group would be published on the Internet to assist with promulgation of recommended changes. The meeting endorsed the two recommendations and encouraged the ICE activities. The Nordic and Paris Centres specifically expressed their thanks to the North American Centre for their leadership in this work.

The report from the North American Centre specifically noted a concern about the impact of automated coding on the skills of nosologists, who may be displaced by the new technology. Highly skilled mortality nosologists are still needed to code those cases which cannot be handled by automated systems and also to maintain and develop the automated systems. A strategy to maintain, upgrade, and recognize the skills of such people was recommended. The Paris Centre stated that this issue is critically important and should be taken up at an international level, perhaps through WHO. The secretariat indicated that it could not respond to this suggestion at this time but that it would consider the issue further in future planning. The Australian Centre noted that currently large numbers of morbidity coders are trained (and, in some jurisdictions, certified) and that perhaps their training ought to be augmented to encompass mortality classification as well.

It was noted that future meetings and an expansion of the scope of the ICE are planned.

A paper from the Australian Centre (WHO/HST/ICD/C/97.52) regarding changes anticipated in mortality statistics arising as a result of the implementation of automated classification software was accepted for the information of the group.(This paper is one of a series of coordinated studies described under agenda item 11.1.)

8.2 Computer-assisted coding software

There were no papers and no discussion relating to this agenda item.

9. Short tabulation lists

The North American Centre presented a paper (WHO/HST/ICD/C/97.37) regarding the National Center for Health Statistics (NCHS) proposed short lists for the tabulation of mortality statistics. The PAHO representative indicated reservations regarding the usefulness of Table B, the list of 113 causes of death, due to its broad groupings of some important causes of death. The North American Centre referred the meeting to the general principles noted in the paper which were used to guide the development of the short lists, and indicated that certain of the lists were based on leading public health issues identified in the United States population. For this reason the lists may not be portable for use in other regions of the world.

10. The dagger and asterisk system

The United Kingdom Centre presented a paper (WHO/HST/ICD/C/97.51) regarding the difficulties experienced in the United Kingdom with the use of the dagger and asterisk system, due to the subtle differences in this dual coding system between ICD-9 and ICD-10 and the large increase in the number of codes annotated with a dagger. The paper recommended improved guidelines relating to the use of the dagger and asterisk combinations to assist in the understanding and use of the codes. The Nordic Centre supported this recommendation, and suggested that a subcommittee of the Centres may be able to supply assistance to the secretariat in the development of these guidelines for presentation at the next Centre Heads meeting. The London, Nordic, and Sao Paulo Centres and the Canadian representative from the North American Centre volunteered to participate in the subcommittee. It was noted that the United States does not use the dagger and asterisk system in its entirety in its clinical modification of the ICD although some of the concepts of double coding are preserved (without the use of the +/* symbols).

11. Improvement of health information

11.1 Mortality

The Paris Centre presented a paper (WHO/HST/ICD/C/97.17) relating to a EUROSTAT project, the objective of which is to improve the validity and international comparability of cause of death statistics. The project is being carried out by four countries: France, the Netherlands, Sweden and the United Kingdom. The application of automated cause of death

software is seen as an important aspect of the project in improving the consistency of mortality coding. Data is currently being collected and the results of the project will be reported to the next Centre Heads meeting. The Sao Paulo Centre noted that the project's methodology would provide a good opportunity to review other problems of cause of death coding which are known to impair international comparability, such as the variation in the form of the death certificates themselves. The Paris Centre agreed and stated that copies of all death certificates used in the European community have now been collected and will be used for this purpose. The Nordic Centre also mentioned the issue of training and the need to ensure that mortality coders receive adequate education prior to being permitted to code death certificates.

The Paris Centre also reported (WHO/HST/ICD/C/97.18) on an international collaborative study on the analysis of multiple cause of death data. The Centre noted the need for further Centres to participate in the study to improve the ability to define a set of standard tabulations for the calculation and publication of multiple causes, in addition to underlying cause statistics. The Sao Paulo Centre recommended the development of a working group to discuss this issue further and to develop rules for coding and interpreting multiple cause data. The North American, Sao Paulo, Nordic and Paris Centres agreed to participate in the group. Interest in participating was also expressed by the representative from the Mexican national centre. Discussion ensued regarding the improvements in understanding regarding mortality statistics that is possible by utilizing multiple cause data compared to underlying cause data alone. The Paris Centre indicated that it would report back to the 1998 meeting regarding the progress on this issue. The North American Centre suggested that, given the importance of multiple cause analysis internationally, it become a regular agenda item for Centre Heads meetings.

The next paper (WHO/HST/ICD/C/97.21) was presented by the Sao Paulo Centre and described an international collaborative study on the application of Rule 3 for mortality from bronchopneumonia. The results indicated a decline in underlying cause mortality from bronchopneumonia following the introduction of ICD-10, its modified Rule 3, and associated guidelines. The Nordic and Sao Paulo Centres recommended the development of additional guidelines for the interpretation and application of Rule 3 to counteract this statistical artefact and offered to assist in this development. It was noted that this should be a priority for the new Mortality Reference Group which should bring forward a proposal for the 1998 meeting of Centre Heads. The United Kingdom Centre indicated that the way the ACME decision tables handle the application of Rule 3 issue must also be considered.

A paper (WHO/HST/ICD/C/97.24) from the Sao Paulo Centre elaborated on the issue of multiple cause statistics and presented a matrix output from a software that allows the preparation of two classical tabulations of multiple causes. This matrix structure, which has been developed into a software program (the Multiple Causes of Death Tabulator, or MCT), permits a view of the overall picture of mortality patterns. This MCT was demonstrated to the meeting and the Sao Paulo Centre stated that it was available free of charge to other Centres upon request.

The North American Centre indicated the usefulness of this paper and suggested that it, in conjunction with the paper from the Paris Centre, provides data to refine the analysis of multiple cause data. The North American Centre also indicated the availability of United States multiple cause data on CD-ROM.

The Nordic Centre next reported (WHO/HST/ICD/C/97.27) on the experiences of the electronic newsgroup on ICD-10 mortality coding which it supports and administers. The paper recommended the formal establishment of a mortality nosology reference group, a suggestion which had, earlier in the meeting, been embodied in the plans for the updating of the ICD-10 through the Mortality Reference Group. The Nordic Centre stressed the great need for international coordination in this area. The type of queries and comments forwarded to the newsgroup have included not only how certain certificates are coded but why particular conditions are coded in a specific way or why some rules exist. During discussions, it was noted that the correspondence of the newsgroup, now to be referred to as the Mortality Nosology Forum, had been made accessible via the NCHS mini-home page on mortality (www.cdc.gov/nchswww/about/major/dvs/mortdata.htm). The paper highlighted the "literalist" versus "intentionalist" approach to coding death certificates and the resultant differences in coded data. The paper also recommended the development of an international mortality coding standards manual, possibly based on the United States cause of death training materials and including the types of discussions of the newsgroup. The Paris Centre complimented the Nordic Centre on the newsgroup initiative and indicated how successful it had been to date. The United Kingdom Centre stated that it may be difficult to develop consensus between the two coding approaches (literalist/intentionalist) but that it was important to promote standard rules and guidelines so that coding is more consistent. The North American Centre indicated that the ACME coding rules may eventually reflect the discussions of the newsgroup and that this will improve comparability.

The Sao Paulo Centre stated that many of the coding problems which arise are due to the poor understanding of the death certification process by many certifiers. The Centre stressed the need for further education of medical students.

At the Tokyo meeting in 1996, the Nordic Centre (WHO/HST/ICD/C/97.26) was asked to coordinate some technical work on the clarification of ICD-10 mortality coding rules. Some of this work led to discussions by the mortality electronic newsgroup. It also led to the production of three technical papers, which were next presented to the meeting. Prior to their presentation it was noted that further work on clarifications should be carried out through the new Mortality Reference Group.

A technical paper (WHO/HST/ICD/C/97.41) on the problem of death certificates with mention of medical procedures was presented by the Sao Paulo Centre. The paper described different aspects of the problem and recommended that there should be some clarification and extension of the relevant guidance notes in Volume 2 of ICD-10. The method of using a systematic set of questions as described in the paper was noted by the meeting for possible use in dealing with other problems. In the discussion of the paper, it became evident that countries with an additional question on the death certificate about the indication for any surgery found that responses to the question produced substantial differences in the underlying cause of death.

The Paris Centre presented a technical paper (WHO/HST/ICD/C/97.42) on two specific issues: the sequential application of rules in the selection of underlying cause of death; and the problems posed by trying to apply the guidelines concerning malignant neoplasms. It was

agreed that the Mortality Reference Group should review these issues and make recommendations. The possibility of a decision-making tool or software was also mentioned.

The Nordic Centre presented the final technical paper (WHO/HST/ICD/C/97.43) in this group on possible errors and conflicts in guidelines for the selection of underlying cause in Volumes 1 and 2. Several examples were illustrated. The questions raised in the paper will be referred to the Mortality Reference Group.

The Australian Centre next presented a paper (WHO/HST/ICD/C/97.45) on their new research programme on the effects on mortality statistics of automated coding.

A series of coordinated studies (WHO/HST/ICD/C/97.48, WHO/HST/ICD/C/97.49, WHO/HST/ICD/C/97.53, WHO/HST/ICD/C/97.56, WHO/HST/ICD/C/97.57, and WHO/HST/ICD/C/97.60) on the effect of changes in the format of death certificates was tabled. These studies are to be published by the United Kingdom Office for National Statistics (ONS). The meeting expressed its satisfaction that this project had been completed and recommended that it be taken as a model for future collaborative studies. (Papers WHO/HST/ICD/C/97.52, WHO/HST/ICD/C/97.54, and WHO/HST/ICD/C/97.55 are part of the same series and were tabled elsewhere on the agenda.)

11.2 Morbidity

A representative of the Nordic Centre described (WHO/HST/ICD/C/97.28) the Finnish experience of the use of external cause codes in ICD-10 for both mortality and morbidity. The greatly increased number of available codes and their complexity had given medical staff considerable difficulties in their use, resulting in a loss of data. Finland proposed, therefore, to produce an abbreviated selection of codes and to combine them with codes for pharmacological products already in wide use in Scandinavia. In discussion, others reported that there was a great interest in and demand for the greater detail made available by the ICD 10 chapter XX codes.

The meeting was reminded of the earlier discussion (see agenda item 6.6) about the activities of the WHO Unit of Safety, Promotion and Injury Control (SPI) on the ICECI and the intended development of links between this work and that of the Collaborating Centres.

The North American Center presented a paper (WHO/HST/ICD/C/97.32) on the implications for the quality of coding of recent United States legislation on the portability of health insurance.

The French Centre presented a paper (WHO/HST/ICD/C/97.40) on the collection of morbidity data in French hospitals, with special reference to diagnostic groups for costing purposes, and the consequent improvement in the quality of data.

The Australian Centre presented a paper (WHO/HST/ICD/C/97.44) for information on the progress of their clinical modification of ICD-10 (ICD-10-AM) and plans for its implementation..

12. Bridge coding and equivalence tables

The Office of the ICD, Japan presented a paper (WHO/HST/ICD/C/97.19) on the National Patient Survey using ICD-10 and compared the results with the 1993 Survey which used ICD-9. The differences due to the change in ICD editions were highlighted.

The Office of the ICD, Japan presented a paper (WHO/HST/ICD/C/97.25) on the change in mortality statistics brought about by the implementation of ICD-10 and the introduction of a fourth line into Part I of the death certificate (as recommended in ICD-10). A similar impact on deaths due to diabetes mellitus was also described in paper WHO/HST/ICD/C/97.57, tabled earlier in the meeting.

The United Kingdom Centre presented (WHO/HST/ICD/C/97.50) a bridge coding study on changes from ICD-9 to ICD-10 for Mortality data in England and Wales. The paper described plans for bridge coding and similar experiences in the transition between previous revisions. It pointed out the importance of bridge coding exercises not only when the classification changes but also when there is a change from manual to automated coding.

The Sao Paulo Centre presented (WHO/HST/ICD/C/97.61) an extensive study undertaken to estimate the comparability of underlying and multiple causes of death coded according to ICD-9 and ICD-10. The study was facilitated by the batch processing tabulation method described in an earlier paper. The review of the data was by corresponding chapters in ICD-9 and ICD-10. The changes in deaths assigned to the chapter of Diseases of the Respiratory System was used to focus discussion on Rule 3, which had also been discussed in the Mortality Nosology Forum (electronic newsgroup). Some results of the study were similar to other smaller scale studies such as those carried out in Japan. It was noted that it was not possible to provide results for individual diseases since the study was restricted to the chapter level of the two classifications.

This paper underscored the importance of making equivalence tables available as soon as possible after an ICD revision. The meeting was told that equivalence tables related to ICD-10 were, in fact, complete but would not be released officially until the accompanying mortality short lists were ready for distribution by WHO. The secretariat undertook to provide advance copies of the equivalence tables to the Centre Heads.

13. Special studies

Two papers (WHO/HST/ICD/C/97.54, WHO/HST/ICD/C/97.55) that were part of the coordinated series mentioned in agenda item 11.1 were tabled for information.

The North American Centre presented a paper (WHO/HST/ICD/C/97.59) on the NCHS home page: Mortality Data from the National Vital Statistics System in the United States. In discussion it was agreed that it would be very useful to have information on all home pages and to consider creating □hot links□ between them.

14. Reports of activities

14.1 Reports of activities of the WHO Collaborating Centres for the Classification of Diseases

Centres reported (WHO/HST/ICD/C/97.5-WHO/HST/ICD/C/97.16) on a wide range of activities particularly related to the preparation and publication of language versions of ICD-10 in Arabic, Chinese, Portuguese and Russian and the preparation of national versions of the classification for morbidity purposes.

Significant efforts had been made in the provision of training courses to enable the implementation of ICD-10 including a first international French-language computer-based training course using the TENDON software.

Several Centres had been involved in activities in relation to the automated encoding of causes of mortality and selection of the underlying cause of death. In efforts to improve the quality of mortality statistics, some Centres had enhanced the guidance that is provided to medical certifiers of causes of death.

Centres had also been engaged in the development and maintenance of classifications of surgical and other medical procedures.

Centres had also maintained their role to provide technical support to countries and individual users who continue to use ICD-9.

A number of Centres reported on their activities in support of the revision of the International Classification of Impairments, Disabilities, and Handicaps (ICIDH).

The Office of the ICD, Japan had hosted the 1996 meeting of Heads of Centres and this had contributed significantly to raising the awareness of health professionals to ICD-10 in Japan. A Japanese-language version of the Application of ICD-10 to Dentistry and Stomatology (ICD-DA) had been prepared and would be published shortly.

The Dutch Centre for the Standardization of Informatics in Health Care (CSIZ) reported on the completion of Volumes 1 and 2 of ICD-10 in Dutch and the continuing work on Volume 3 (the alphabetical index) which was expected to be published in June 1998.

14.2 Report of HST Classification-related activities

In addition to work in connection with the development of the draft WHO long-term strategy for classification-related activities (WHO/HST/ICD/C/97.39), the secretariat also reported (WHO/HST/ICD/C/97.4) on a wide range of other activities.

The alphabetical index to ICD-10 in French had been published in November 1996. The French-language edition of the Application of ICD-10 to Dentistry and Stomatology was published in August 1997 and the Application to Neurology in English had appeared at the beginning of October. The text of the French-language version of the Second Edition of the ICD for Oncology (ICD-O-2) had been completed but it will not be published (see also agenda item 6.4).

Work was continuing with the Division of Publishing, Language and Library Services (PLL) to develop a multilingual, multi-revision CD-ROM of the ICD [ICD-10 in English, French, Spanish and Portuguese, ICD-9 in English and French (and possibly Spanish) and ICD-8 and ICD-7 in English and French].

The diskette version of ICD-10 in French had been completed in both PDF and ASCII versions and was being prepared for publication.

An ICD-10 Internet home page had been established containing basic information regarding the ICD and the answers to a number of frequently asked questions (FAQs).

Considerable effort had been expended by HST in relation to updating the WHO mortality database to receive and process national mortality data coded according to ICD-10. This included the creation of a new validation program, the development of short lists for data storage, dissemination and publication both in the World Health Statistics Annual and in the United Nations Demographic Yearbook.

In response to a question about the validation program for mortality data, the secretariat agreed to make this available to Collaborating Centres and national governments to assist in their preparations for the implementation of ICD-10.

15. Other business

15.1 Additional matters

There were no additional matters tabled for discussion.

15.2 Place, time, theme and agenda for next meeting

The Paris Centre agreed to host the next meeting from 13 to 19 October 1998 although the exact location of the meeting remained to be decided.

It had been agreed earlier in the meeting to adopt a theme for future meetings. Participants were asked for suggestions and a wide variety were put forward, some of which pertained to the priority items on the workplan for the coming year. After discussion, it was agreed that there were two prevailing themes: terming/terminology and the relationship to coding and classification; and quality assurance of mortality data. Finalization of the theme was left to the Head of the host Centre and the secretariat with the call for documents to be made no later than eight months prior to the meeting (based upon the newly-agreed procedures.).

With respect to the agenda, it was suggested that there should be a better balance between mortality and morbidity issues and that morbidity issues might be presented first rather than last as had become the custom.

The United Kingdom Centre agreed to host the 1999 meeting at a time and place to be decided.

Action Summary

All Centres

- submit nominations for Update Reference Committee and Mortality Reference Group to secretariat by November 20, 1997
- submit issues for Update Reference Committee to secretariat for distribution and coordination
- submit abstracts of documents proposed for 1998 Centre Heads meeting to secretariat no later than 13 May 1998
- submit documents for Centre Heads meeting to Paris Centre and secretariat no later than 12 September 1998 (N.B. documents to be circulated by the secretariat must reach the secretariat by 1 September 1998)
- disseminate documents for 1998 Centre Heads meeting in sufficient time to ensure they reach participants no later than 30 September 1998
- work with the secretariat to develop a plan for the evaluation of the new updating arrangements by the end of the 1998 meeting
- work with the secretariat to redefine the parameters for inclusion in the family of classifications by the end of the 1998 meeting

Nordic Centre

- Centre Head to follow-up on business from the 1996 Centre Heads meeting with the secretariat
- identify individual to serve as a formal link between Centre Heads and ICECI working group
- participate in subcommittee to develop improved guidelines for the use of ICD-10 dagger and asterisk codes
- participate in working group to define a standard set of tabulations for the calculation and publication of multiple cause of death statistics

North American Centre

- provide meeting participants with November 1997 review version of ICD-10-CM upon request
- make electronic death certificate module available through the NCHS home page
- identify individual to serve as a formal link between Centre Heads and ICECI working group
- circulate changes to the ACME decision tables for ICD-10 for review (January 1998)
- participate in subcommittee to develop improved guidelines for the use of ICD-10 dagger and asterisk codes (volunteer from Canada)
- participate in working group to define a standard set of tabulations for the calculation and publication of multiple cause of death statistics

Paris Centre

- Centre Head to review abstracts of documents proposed for 1998 Centre Heads meeting with secretariat and draft agenda
- Centre Head to confer with secretariat in development of annotated agenda for 1998 Centre Heads meeting (to be available to participants at the meeting)
- provide updated results from EUROSTAT project on validity and international comparability of death statistics to 1998 Centre Heads meeting
- establish working group to define a standard set of tabulations for the calculation and publication of multiple cause of death statistics (volunteers from the Nordic, North American and Sao Paulo centres)

Sao Paulo Centre

- participate in subcommittee to develop improved guidelines for the use of ICD-10 dagger and asterisk codes
- participate in working group to define a standard set of tabulations for the calculation and publication of multiple cause of death statistics

United Kingdom Centre

- participate in subcommittee to develop improved guidelines for the use of ICD-10 dagger and asterisk codes

Secretariat

- revise and act upon the long-term strategy based on discussions at Centre Heads meeting
- appoint chairperson for Mortality Reference Group by 1 December 1997
- establish Update Reference Committee by 15 December 1997
- distribute report of 1997 Centre Heads meeting to participants by 19 December 1997
- make report of 1997 Centre Heads meeting available on ICD-10 home page by 19 December 1997
- provide meeting participants with the report of April 1997 ICIDH-2 meeting and the beta-1 draft of the classification
- provide terms of reference of each of the ICD Collaborating Centres to all Centres for information
- disseminate ICD-10 updates approved at 1997 Centre Heads meeting
- give further consideration to the issue of notifying all ICD-10 users of the existence of approved updates
- consider making the ICD-10 index available on the web with annotations regarding changes and their date of implementation
- provide advance copies of equivalence tables to Collaborating Centres

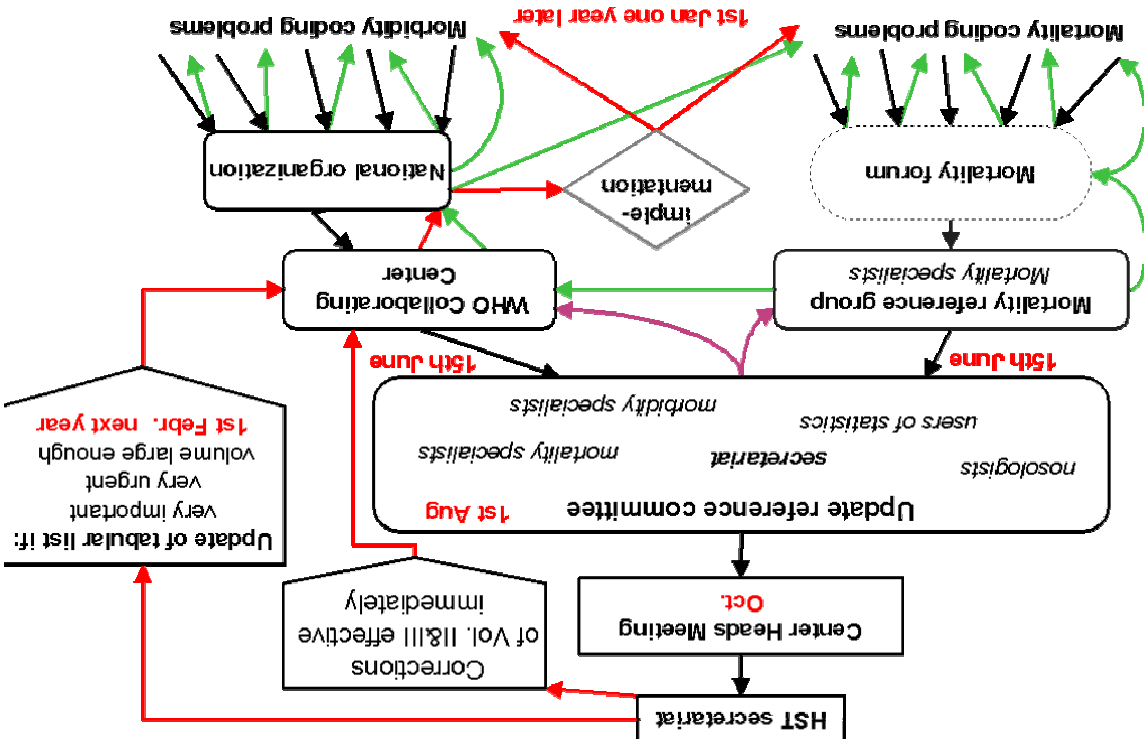
- make WHO validation program for mortality data available to Collaborating Centres and national governments
- request Regional Offices to contact Member States to determine their needs in the area of procedure classification
- act as a clearinghouse for information on available national procedure classifications
- facilitate establishment of formal link between Centre Heads and ICECI working group (volunteers from Nordic and North American Centres)
- report to 1998 Centre Heads meeting on ICECI developments
- undertake internal review of pricing and distribution activities in view of electronic dissemination
- establish German-language Collaborating Centre
- establish subcommittee to develop improved guidelines for the use of ICD-10 dagger and asterisk codes (volunteers from Nordic, North American, Sao Paulo and United Kingdom Centres)
- make multiple cause analysis a permanent agenda item for future Centre Head meetings
- distribute call for documents for 1998 Centre Heads meeting to all Collaborating Centres no later than 13 February 1998
- review abstracts of documents proposed for 1998 Centre Heads meeting with Paris Centre Head, draft agenda for meeting, and disseminate to all Collaborating Centres by approximately 15 June 1998
- disseminate any documents for 1998 Centre Heads meeting in sufficient time to ensure they reach participants no later than 30 September 1998 (documents may those prepared or translated by the secretariat or disseminated by the secretariat on behalf of Collaborating Centres)
- confer with Paris Centre Head in development of annotated agenda for 1998 Centre Heads meeting (to be available to participants at the meeting)
- work with the Centres to develop a plan for the evaluation of the new updating arrangements by the end of the 1998 meeting
- work with the Centres to redefine the parameters for inclusion in the family of classifications by the end of the 1998 meeting

Update Reference Committee

- submit recommendations for ICD-10 updates to be considered by 1998 Centre Heads meeting by 3 August 1998

Mortality Reference Group

- develop guidelines for the interpretation and application of Rule 3
- review the sequential application of ICD-10 rules for underlying cause selection and the guidelines for malignant neoplasms (see WHO/HST/ICD/C/97.42)
- review questions raised in WHO/HST/ICD/C/97.43
- submit application and interpretation decisions for 1998 Centre Heads meeting by 3 August 1998



Annex 1

Updating Mechanism for ICD-10

Recommendations in the draft WHO long-term strategy document (WHO/HST/ICD/C/97.39) and in papers from the North American and Nordic Centres regarding the updating of the ICD were reviewed. It was agreed that issues for updating might take two basic forms:

- updates to the classification itself, i.e. correction of errors and additions
- clarification of application and interpretation (of the classification and its associated rules) to establish international practice

After discussion, a mechanism for review of issues was developed that incorporated elements from each of the suggestions. The mechanism is illustrated in the diagram above.

The following points were discussed by the meeting and agreed:

- Updates suggested should only relate to the ICD-10 and not to national versions (although they may come *from* national versions).
- Updates, once agreed, should be applied to all language versions (if applicable) and specialty adaptations and should be reflected in related tools, as necessary.
- Two separate bodies should be established: an Update Reference Committee (advisory to the secretariat and the Centre Heads, generally carrying out its activities by electronic means such as e-mail and facsimile); and a Mortality Reference Group (with decision-making powers regarding application and interpretation, working electronically and meeting once annually, if necessary)

- The Mortality Reference Group will make decisions on the application and interpretation of the ICD as it relates to mortality and will refer updates/changes to the Update Reference Committee.
- Mortality problems arising through the Mortality Forum (an electronic newsgroup) requiring decisions on application and interpretation will be referred to the Mortality Reference Group.
- Morbidity problems should be directed to the Collaborating Centres and then to the secretariat for distribution to Update Reference Committee members.
- There should be representation from the Mortality Reference Group on the Update Reference Committee (particularly to address proposed changes to Volumes 1 and 3 that would effect application and interpretation).
- Collaborating Centres and the secretariat may nominate representatives to the Mortality Reference Group and the Update Reference Committee (nominations are not compulsory). Nominations from the Collaborating Centres should be made to the secretariat by November 20, 1997.
- There should be a balance between morbidity and mortality expertise in the membership of the Update Reference Committee. The membership should include clinicians, nosologists and users of statistics based on the classification (e.g. epidemiologists, statisticians and researchers) but should not exceed 20 members.
- Once the Mortality Reference Group and the Update Reference Committee are operational, the replacement of members should be staggered to ensure continuity and balance.
- The Update Reference Committee will be coordinated/chaired by the secretariat.
- The secretariat will appoint a chairperson for the Mortality Reference Group.
- The Update Reference Committee will be responsible for developing criteria for acceptance of changes to the ICD. These criteria will be established as part of the Committee terms of reference and will be tested by the Committee.
- Recommendations made to the Centre Heads will be based on issues for which the Update Reference Committee has reached agreement by consensus. Where consensus is not possible, the issue may be referred to the Centre Heads for resolution.
- Decisions from the Mortality Reference Group should be available from the WHO ICD-10 home page (directly or through a link) using the most suitable accessible technology. The decisions may be available from several sites (mirror or replicate sites) but, if so, they should all be updated concurrently.
- Corrections of errors (e.g. typographical, spelling, inconsistency between versions) should be announced on the ICD-10 home page immediately. If a correction will have an impact on statistical collection, however, it should be treated as part of the annual update process and introduced with other updates.
- Updates to Volume 1 of ICD-10 (and their associated index changes) should not be implemented immediately. For mortality statistics (which are based on a calendar year), updates become effective for deaths from the first of January of the second year following the October Centre Heads meeting (i.e. 15 months later). For morbidity statistics (which may be based on a fiscal/financial year), implementation dates will be dependant upon update mechanisms within individual countries. To avoid confusion, it was recommended that updates approved at the Centre Heads meeting not be made available until the following February.

- To be considered at an October Centre Heads meeting, recommendations from the Update Reference Committee and the Mortality Reference Group must be submitted by the first of August.
- If the Mortality Reference Group is to meet, it should meet by the end of June to allow finalization of recommendations by the first of August.
- Although there will be an ongoing updating process, annual updates to the classification are not essential. Updates will be disseminated when they are sufficiently important or urgent, or when there is a sufficient volume to make dissemination worthwhile (based on the impact on language versions, specialty adaptations, and associated tools). Updates will not be issued more frequently than annually. The secretariat will have discretion in making recommendations to the Centre Heads for implementation (including recommendations regarding the timing of such implementation).

Annex 2

Procedures for Meetings of Heads of Collaborating Centres for the Classification of Diseases

The meeting reviewed the references to the governance and functioning of Centre Heads meetings contained in Annex 5 of the document A WHO Long-term strategy for the Development and Management of Health-related Classifications (WHO/HST/ICD/C/97.39). The meeting agreed on new rules for the governance and functioning of Centre Heads meetings as set out below. These would subsume all previous decisions from the 1990 London, 1991 Sao Paulo and 1995 Canberra Centre Heads meetings.

Participation/invitations

The number of Collaborating Centres and the number of participants have grown significantly and the meeting therefore adopted the following rules for participation:

- The secretariat of the meeting is assumed by HST. Other WHO Headquarters and Regional Office staff may attend as part of the secretariat and will be invited by HST.
- The Heads of Centres are by definition members of the meetings. Invitations to Heads of Centres will be sent by the host Centre. Each Centre Head may designate (to the organizers) other individuals as part of their delegation but Centres should limit their participation to four representatives (including the Centre Head).
- The host Centre is free to invite, in addition, persons from its own national offices or the geographical area of the Member States where the Centre is located.
- The secretariat may, in consultation with the host Centre, invite representatives of Member States, national classification centres and nongovernmental organizations in official relations with WHO, as well as individual experts as participants or observers, subject to their technical competence in relation to matters to be discussed and according to the WHO rules laid down for the attendance of such representatives or observers.

Voting

Only the Heads of Centres or, in their absence, their nominated representatives have the right to vote. There is only one vote for each Centre.

Timing/periodicity/duration of meetings

The timing of meetings in October as well as the one-year interval between meetings were still considered appropriate.

The merits of shortening the meeting to fit within a working week (no more than 5 days) were agreed in principle.

In order to facilitate report writing, the following procedures should be tested: submission, by the authors, of short abstracts of annual reports and one-paragraph summaries of other documents in electronic version. The secretariat would then only need to write the report on the business of the meeting and discussions following document presentations (see below).

For 1998, the current duration and format should be retained, recognizing the need for continuing significant development of the work program and the unknown level of success that the new communication proposals and meeting rules will have. The duration of subsequent meetings should be reviewed at the 1998 meeting.

Agenda/documents/report/communication

The host of the forthcoming meeting should take lead responsibility for development of the agenda, in consultation with the secretariat and other Centre Heads:

- The emphasis of the agenda could change from year to year, with each year considering progress on the work plan and implementation of ICD-10, but the work plan only being revised every second year. This would allow more time in the intervening years for consideration of scientific and analytic papers.
- A theme would be set the previous year for the next year's meeting.
- Documents can be commissioned on specific themes, e.g. work-plan-related evaluations of tools (bridge-coding, tabulation lists), data quality, etc. but self-selected topics of documents will also be allowed.

The host of the previous meeting should take on responsibility for following up on business from the previous meeting together with the secretariat. The basis for this follow-up should be the Action Summary accompanying the report from the previous meeting.

The host of the forthcoming meeting should take on responsibility to review documents in consultation with the secretariat:

- Documents should be reviewed with regard to their treatment at the meeting: information only, discussion, or decision.
- On the basis of document review the secretariat will prepare the annotated agenda in consultation with the Head of the host Centre.

Documents should be provided to the secretariat in an agreed upon readable electronic format to the extent possible.

Collaborating Centres requiring translation of their documents by the secretariat need to submit them earlier than the normal timetable.

Centres distributing documents directly should ensure that these reach participants no later than two weeks prior to the meeting.

Documents not submitted according to the timetable shown below will not be considered at the meeting.

The report of the meeting should be sent to participants no later than two months after the meeting and should be made available through the ICD-10 home page.

Reports from at least three annual meetings, starting with the 1996 report, should also be available on the ICD-10 home page.

Starting with the 1998 meeting, the secretariat should aim to make all documents from the meeting available on the ICD-10 home page after the meeting.

Timetable

Theme discussion	Previous meeting
Call for documents	No later than 8 months prior to the meeting
Submission of abstracts	No later than 5 months prior to the meeting
Draft agenda	Shortly after submission of abstracts
Recommendations from Update Reference Committee to secretariat	No later than 2 months prior to the meeting
Submission of documents to organizers (host Centre and secretariat)	No later than 4 weeks prior to the meeting (see also below)
Distribution of documents to participants	To reach participants no later than 2 weeks prior to the meeting. Centres wishing to distribute documents via the secretariat need to submit these no later than 6 weeks prior to the meeting.
Annotated agenda	Distributed at the meeting
Distribution of report	Available to participants no later than 2 months following the meeting

Annex 3

Long-term Strategy for ICD Development and Implementation: An Essential Partnership

Response of Centre Heads to Discussion at the 1997 Meeting of ICD Collaborating Centres, Copenhagen

October 17, 1997

The Centre Heads welcome the support expressed at the WHO Executive Board Meeting in January 1997 for the WHO's core normative functions in relation to the ICD. We further appreciate the decision by Dr. F Varet, Assistant Director-General, that a long-term strategy be prepared. Finally, we warmly thank the Director HST, his staff and consultants Robert Israel and Elizabeth Taylor, for preparing the paper, WHO/HST/ICD/C/97.39 Ą WHO Long-term strategy for the Development and Management of Health-related Classifications, as a basis for the meeting's discussions of long-term strategy issues.

The meeting first discussed the HST paper in general, recognizing the breadth of issues raised and the thoughtful proposals in the paper. Next, there was an analysis of the WHO's ICD customers, what services are required by those customers, how the customers are changing over time, and what needs to be provided to satisfy their demands.

This analysis led to a discussion of resource requirements and availability across all participants, and how the participants should work, as a partnership, in the future.

The following conclusions of the general strategic discussion were unanimously accepted by all the meeting participants:

- The ICD-programme is vitally important to a diverse range of customers and is used on a day-to-day basis.

- The world is changing rapidly, with many impacts on health and health information, and these will place many new demands on classifications.

- A lot will have to be done in the next few years if the position of ICD is to be maintained and protected. Improved ways of working must be found if success is to be achieved. These include:

    - Working more effectively and efficiently together
    - Managing and co-ordinating our programme so that we deliver our promises
    - Working with others who have the right skills and common agenda
    - Acquiring and developing new resources and skills

Essentially, HST, Collaborating Centres, Regional Offices, and national and specialty groups must work in partnership and commit themselves to a common work plan.

After discussing the ICD-related work that needs to be accomplished, highest priority tasks have been identified. The annual meetings must be made more efficient and productive in achieving the work plan. The top three priorities are as follows:

1. Promoting and implementing ICD-10

The first high priority, short term task is to promote worldwide implementation of ICD-10. A few countries have already implemented in full. In many others, implementation is complex as automated coding systems have to be adjusted, new extended classifications developed, linkages to ICD-9 mapped and new national procedures classifications put in place.

Automated systems issues are being addressed by establishment of a users group proposed by the United States National Center for Health Statistics. We welcome and endorse this initiative.

Sharing information on experience in implementing ICD-10, as well as making tools for training and implementation available, should be encouraged. Quality control is an important feature of implementation and should be incorporated into all promotion activities.

The Heads of Centres are concerned about the many parts of the world, including countries in Africa and Asia, where ICD is not currently used. Each Regional Office should have some capacity to address this need and should consider surveying countries in their regions to identify resource and skills requirements. HST and Collaborating Centres should contribute to meeting some of these unmet needs as far as possible.

2. Updating

We endorse the proposal for formalizing and implementing an updating mechanism for ICD-10 that is described in the meeting report. This proposal was developed by a working group representing the Centres and HST and includes establishment of an Update Reference Group with a balance of mortality and morbidity expertise. Successful implementation of the updating mechanism will require substantial commitment of resources by both the Collaborating Centres and the secretariat.

We agree with HST that an evaluation of the new updating arrangements should be made after 3 years and will develop and evaluation plan with HST by the end of the 1998 meeting.

We have agreed that no consideration should be given to ICD-11 until after this evaluation has been completed.

We strongly support the statement in the HST strategy paper that Internet publication of ICD and associated updates and clarifications is a highly desirable objective. We concur with the need for development of equitable access policies and for an internal review by WHO of pricing and distribution activities in view of electronic dissemination. The results of this review should be reported back to the Centre Heads by the next meeting.

3. Family of Classifications

We believe that the parameters for inclusion in the family of classifications must be revisited and refined by the Centres and HST within the coming year. Once this has been accomplished, adoption of guidelines for prioritizing work on family members can be undertaken. The secretariat currently must devote significant resources to the review of various classifications to ensure consistency with ICD. Given other priorities this is an impossible task, with the current staffing level of HST.

Resources

In light of the above, it is clear that HST must retain a core role in ICD. First, it is the ICD proprietor, and must retain ultimate responsibility for approval of updates, technical standards and copyright issues. Second, HST must promote the ICD family globally, and assist or facilitate implementation of ICD-10. Third, ICD is essential infrastructure within WHO for the description of the global health situation and trends. Fourth, there is the need to coordinate the activities of Collaborating Centres and Regional Offices.

Although Collaborating Centres play an important role in carrying out the essential ICD work programme, there is a clear need for expanded resources within HST for ICD work, and for provision of support from other areas of WHO, notably with information technology and publications responsibilities.

The HST strategy paper suggested a minimum number of core staff to support ICD functions. This minimum comprised three core staff, two Technical Officers (one of them in a supporting role to the existing Technical Officer) plus full time secretarial support.

We consider the additional Technical Officer essential not just to meet the heavy workload, but also to reduce the major risk now posed by having so much unique knowledge of ICD centred in just one person. Even this level of staffing will need to be supplemented with consultant assistance.

Conclusion

All Collaborating Centres welcome the opportunity provided by WHO for a free and extensive discussion of long-term strategy for ICD implementation and development.

We have developed detailed proposals to move forward on updating ICD-10, for the conduct of future meetings of Collaborating Centres, and for ongoing discussion between meetings.

There is unanimous support for an immediate increase in HST resources devoted to ICD matters to three full time staff, and strong concern at the risks involved in the current reliance on a single individual. Centre Heads urge WHO senior management to address this matter as soon as possible, and will brief their country delegations on the need for decisive, immediate action.

We commit ourselves to additional effort, over and above the significant support already being provided, to progress essential ICD work beyond our own countries. Promotion and assistance

for ICD-10 implementation globally, for updating, and for the development of essential tools, are of particular importance.

We urge HST to develop its long-term strategy to incorporate the conclusions and proposals of the Copenhagen discussions and would like to comment on the strategy at all stages of its development and progress from here on.

Original signed by:

Dr. Richard Madden
Australia
(for Western Pacific Region)

Professor Ruy Laurenti
Brazil

Dr. Dong Jingwu
China

M Gérard Pavillon
France

Dr. Abdul Aziz Khalaf Karam
Kuwait
(For the Arab countries)

Professor Vladimir Ovcharov
Russia

Professor Björn Smedby
Sweden
(for the Nordic countries)

Dr. John Fox
United Kingdom

Ms Marjorie Greenberg
United States of America
(for North America)

Dr Carlos Muñoz Rojàs
Venezuela

Annex 4

Actual and Proposed Implementation Dates of ICD-10

Country	Mortality	Morbidity
Argentina	1997	..
Australia	1999	July 1998
Austria	1998	..
Bahamas	1998	..
Belgium	1998	..
Belize	1997	..
Brazil	1996	1998
Canada	1999	1999
Chile	1997	..
China	2000+	2000+
Colombia	1999	..
Costa Rica	1996	..
Cuba	1998	..
Czech Republic	1994	..
Denmark	1994	1994
Dominican Republic	1996	..
Ecuador	1997	..
El Salvador	1997	..
Estonia	1997	1997
Finland	1996	1996
France	1998	1997
Germany	1998	1998
Guatemala	1998	..
Guyana	1998	..
Haiti	1998	..
Iceland	1996	1997
Ireland	1998	..
Italy	1998	..
Jamaica	1995	..
Japan	1995	1996
Kuwait	1995	1996
Latvia	1996	1998
Lithuania	1997	1998
Macedonia	1996	..

Country	Mortality	Morbidity
Malta	1995	..
Mexico	1998	1998
Netherlands	1996	1998-2000
New Zealand	1999	1999
Nicaragua	1997	..
Norway	1996	1999 (1997 - Psychiatry)
Panama	1998	..
Paraguay	1996	..
Peru	1997	..
Poland	1997	..
Portugal	before 2000	..
Puerto Rico	1999	..
Qatar	1995	..
Romania	1994	..
Russian Federation	1998	1998
Slovakia	1994	..
Suriname	1996	..
Sweden	1997	1997
Thailand	1994	1994
Turks and Caicos	1999	..
United Kingdom		
- England and Wales	2000	1995
- Scotland	2000	1996
- Northern Ireland	2000	1996
United States	1999	2001
Venezuela	1996	1997

.. information not available

List of Participants

Cassia Maria Buchalla, Professor of Epidemiology at the School of Public Health, Assessor on ICD at the WHO Collaborating Centre for the Classification of Diseases in Portuguese, School of Public Health, University of Sao Paulo, Av. Dr. Arnaldo 715 - room 40, CEP 01246-904 Sao Paulo SP, Brazil
Phone: +55 11 3066. 7747
Fax: +55 11 883 4246
E-mail: cmbuchal@usp.br

Ms Lindsay Campbell, Manager, Classification Systems, Canadian Institute for Health Information, 250 Ferrand Drive, P.O. Box 3900, Don Mills, Ontario M3C 2T9, Canada
Phone: +1 416 429-0464 ext. 3501
Fax: +1 416 429-1953
E-mail: lcampbell@cihi.ca

Kerstin Carsjö, Research Assistant, WHO Collaborating Centre for the Classification of Diseases in the Nordic Countries, Department of Social Medicine, University Hospital, S-751 85 Uppsala, Sweden
Phone: +46 18 66 35 72
Fax: +46 18 50 64 04
E-mail: kerstin.carsjo@socmed. uu.se

Dr Susan Cole, Medical Adviser to Registrar General for Scotland, 31 Granby Road, Edinburgh, EH16 5NP, UK
Phone: +44 131 667 3415
Fax: +44 131 314 4344

Carina Engblom, Project Assistant, WHO Collaborating Centre for the Classification of Diseases in the Nordic Countries, Department of Social Medicine, University Hospital, S-751 85 Uppsala, Sweden
Phone: +46 18 66 35 66
Fax: +46 18 50 64 04
E-mail: carina.engblom@socmed.uu.se

Dr A. John Fox, Chief Medical Statistician, WHO Collaborating Centre for the Classification of Diseases, Office for National Statistics, 1 Drummond Gate, London, SW1V 2QQ, England
Phone: +44 171 533 5100
Fax: +44 171 533 5103
E-mail: john.fox@ons.gov.uk

Ms Marjorie S. Greenberg, Head, WHO Collaborating Center for the Classification of Diseases for North America, Data Standards, Program Development and Extramural Programs, National Center for Health Statistics, 6525 Belcrest Road, Room 1100, Hyattsville, MD 20782, USA
Phone: +1 301 436 4253
Fax: +1 301 436 4233
E-mail: msg1@cdc.gov

Ann Harding, Director NHS Centre for Coding and Classification, Woodgate, Loughborough, Leicestershire, LE11 2TG, England
Phone: +44 1509 211 411
Fax: +44 1509 211 611

Asbjorn Haugsbo, Special Adviser, Norwegian Board of Health, P.O. Box 8128 Dep, N-0032 Oslo 1, Norway
Phone: +47 22 24 88 47
Fax: +47 22 24 88 68
E-mail: Asbjorn.haugsbo@helsetilsynet.dep.telemax.no

Dr Willem M. Hirs, CSIZ, Sparrenheuvel 16, 3708 J Lo E Zeist, The Netherlands
Phone: +31 30 698 82 45
Fax: +31 30 698 83 31 or 31 35 694 59 71
E-mail: w.hirs@inter.nl.net

Torbjorg Hogsnes, Adviser, Ministry of Health and Social Affairs, Pb. 8011 Dep. N-0030 Oslo, Norway
Phone: +47 22 24 87 58
Fax: +47 22 24 86 56
E-mail: torbjorg.hogsnes@shd.dep.telemax.no

Dr Dong Jingwu
Head, WHO Collaborating Centre for the Classification of Diseases
Peking Union Medical College (PUMC) Hospital, Chinese Academy of Medical Sciences (CAMS), Beijing, 100730, P.R. China
Phone: +86 10 6529 5575
Fax: +86 10 6512 4875
E-mail: dongjw@cdm.imicams.ac.cn

Mr Lars Age Johansson, Consultant, WHO Collaborating Centre for the Classification of Diseases in the Nordic Countries, Department of Social Medicine, University Hospital, S-751 85 Uppsala, Sweden
Phone: +46 18 66 35 66
Fax: +46 18 50 64 04 or +46 8 826 314
E-mail: lars.age@scb.se

Dr Abdul Aziz Khalaf Karam, Head, WHO Collaborating Centre for the Classification of Diseases in Arabic, Department of Statistics and Medical Records, Ministry of Public Health, P.O. Box 5286, 13053, Safat, Kuwait
Tel: +965 242 9862 and 965 242 9871
Fax: +965 242 9723

Professor Ruy Laurenti, Head, WHO Collaborating Centre for Classification of Diseases in Portuguese, School of Public Health of the University of Sao Paulo, Av. Arnaldo, 715, CEP 01246-904 Sao Paulo SP, Brazil,
Phone: +55 11 883 4246 and +55 11 3066 7747
Fax: +55 11 883 4246
E-mail: laurenti@usp.br

Dr Alain Lellouch, WHO Collaborating Centre, Hôpital de St. Germain en Laye, 20, rue Armagis, BP 231, 78105 St. Germain en laye, France
Phone: +33 1 39 21 42 97
Fax: +33 1 39 21 42 98
E-mail: dimsgl@fc.horus-medical.fr

Dr Richard Madden, Head, WHO Collaborating Centre for the Classification of Diseases, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601, Australia
Phone: +61 2 6244 11 00
Fax:+61 2 6244 11 11
E-mail: richard.madden@aihw.gov.au

Dr Carlos Muñoz, Head, Centro Venezolano de Clasificación de Enfermedades (CEVECE) MSAS, Centro Simón Bolívar, piso 3, ofic. 320, Apartado Postal 6653 - Carmelita, Caracas, Venezuela
Phone/Fax: +58 2 481 9729
cellular phone: +58 2 16348391
E-mail: cmunoz@razetti.mh.gov.ve

Professor Vladimir K. Ovcharov, Head, WHO Collaborating Centre for the Classification of Diseases, Moscow, Semashko Scientific Research Institute, 12, Vorontsovo Pole, 103064 Moscow, Russian Federation
Tel: +7 095 917 4903
Fax: +7 095 916 03 98
E-mail: schepin@mx.iki.rssi.ru

M. Gérard Pavillon, Chef, Centre collaborateur OMS pour la Classification Internationale des Maladies en Langue Française, INSERM, 44 chemin de Ronde, 78110 Le Vésinet, France
Phone: +33 1 34 80 24 62
Fax: +33 1 34 80 24 29
E-mail: pavillon@vesinet.inserm.fr

Mrs Donnamaria Pickett, Medical Systems Administrator, Data Standards, Program Development and Extramural Programs, National Center for Health Statistics, Room 1100, 6525 Belcrest Road, Hyattsville, MD 20782, USA
Phone: +1 301 436 7050 ext. 142
Fax: +1-301-436-4233
E-mail: dfp4@cdc.gov

Rosemary Roberts, Associate Professor, Director, National Centre for Classification in Health, University of Sydney, P.O. Box 170, Lidcombe, NSW 2141, Australia
Phone: +61 2 9351 9461
Fax: +61 2 9351 9603
E-mail: r.roberts@cchs.usyd.edu.au

Dr Harry M. Rosenberg, Chief, Mortality Statistics Branch, Division of Vital Statistics, National Center for Health Statistics, CDC, Room 820, 6525 Belcrest Road, Hyattsville, MD 20817, USA
Phone: +1-301-436-8884 ext.175
Fax: +1-301-436-7066
E-mail: hmr1@cdc.gov

Professor Augusto H. Santo, WHO Collaborating Centre for Classification of Diseases in Portuguese, School of Public Health of the University of Sao Paulo, Av. Arnaldo, 715, CEP 01246-904 Sao Paulo SP, Brazil,
Phone: +55 11 883 4246
Fax: +55 11 883 4246
E-mail: auhsanto@usp.br

Dr Gunnar Schiøler, Head, Department of Medical Informatics, Danish National Board of Health 13, Amaliegade, P.B. 2020, DK-1012, Copenhagen K, Denmark
Phone: +45 33 91 16 01
Fax: +45 33 93 16 36
E-mail: gs@sst.dk

Professor Björn Smedby, Head, WHO Collaborating Centre for the Classification of Diseases in the Nordic Countries, Department of Social Medicine, University Hospital, S-751 85 Uppsala, Sweden
Phone: +46 18 54 26 56
Fax: +46 18 50 64 04
E-mail: bjorn.smedby@socmed.uu.se

Dag Swenson, Principal Administrative Officer, Swedish National Board of Health and Welfare, Centre for Epidemiology, S-106 30 Stockholm, Sweden
Phone: +46 8 783 3457
Fax: +46 8 783 33 27
E-mail: dag.swenson@sos.se

Dr Martti Virtanen, Head of Research and Development, Health Care Classifications and Registers of Reproductive Medicine, Finnish National Research and Development Centre for Welfare and Health, STAKES, Postbox 220, FI-00531, Helsinki, Finland,
Phone: +358 9 3967 23 83
Fax: 358 9 3967 2459
E-mail: marttiv@stakes.fi

Ms Sue Walker, Associate Director, National Centre for Classification in Health, QUT, School of Public Health, Victoria Park Road, Kelvin Grove QLD 4059, Australia
Phone: +61 7 3864 5873
Fax: +61 7 3864 5515
E-mail: s.walker@qut.edu.au

Dr Takayoshi Yamada, Chief, Office of the ICD, Statistics and Information Department, Ministry of Health and Welfare, 1-2-3 Kasumigaseki Chiyoda-ku Tokyo 100, Japan
Phone: +81-3-3503-1711 (ext. 4123 or 4124)
Fax: +81-3-3595-1607
E-mail: TY-NID@mhw.go.jp

WHO Secretariat

Dr Roberto Becker, Regional Adviser on ICD, Pan American Health Organization, 525 23rd Street, N.W. Washington, D.C. 20037-2895, U.S.A.
Phone: +1 202 974 3131
Fax: +1 202 974 3674
E-mail: beckerro@paho.org

Dr Carlos Castillo-Salgado, Program Coordinator, Health Situation and Analysis Program, Pan American Health Organization, 525 23rd Street, N.W. Washington D.C. 20037-2895, U.S.A.,
Phone: +1 202 974 3327
Fax: +1 202 974 3674
E-mail: castillc@paho.org

Dr H.R. Hapsara, Director, Division of Health Situation and Trend Assessment, World Health Organization, Geneva, Switzerland
Phone: +41 22 791 2388
Fax: +41 22 791 4194
E-mail: hapsarah@who.ch

Mr A.C.P. L'Hours, Division of Health Situation and Trend Assessment, World Health Organization, Geneva, Switzerland (Secretary of the meeting)
Phone: +41 22 791 2843
Fax: +41 22 791 4194
E-mail: lhoursa@who.ch

Ms C.M. Longmire, Regional Office for South-East Asia, World Health House, Indraprastha Estate, Mahatma Gandhi Road, New Delhi 110002, India
Phone: +91 11 331 7804
Fax: +91 11 331 8607
E-mail: longmire@who.ernet.in

Dr R. Prokhorskas, Statistician, Epidemiology, Statistics and Health Information, Regional Office for Europe, 8, Scherfigsvej, DK-2100 Copenhagen, Denmark
Phone:+ 45 39 17 14 82
Fax: +45 39 17 18 95
E-mail: RPR@who.dk

Ms Elizabeth Taylor, Nosology Consultant, 1157 Ste-Thérèse Lane
Gloucester, Ontario K1C 2A5, Canada (Temporary Adviser)
Phone: +1 613 824 0919
Fax: +1 613 824 8168
E-mail: et2@earthling.net

Observers

Dr Miguel Angel Lezana Fernandez, Director General de Estadistica E Informatica, Secretaria de Salud, Leibnitz No. 20, 3er. Piso, Col. Anzures, C.P. 11590 Mexico, D.F.
Phone: +52 5250 09 25
Fax: +52 5250 09 84
E-mail: miguelan@cenids.ssa.gob.mx

Mrs Ratana Konsilp, Chief, ICD Co-oordinating Section, Health Information Division, Ministry of Public Health, Tivanond Rd., Nonthaburi 11000, Thailand
Phone: +66 2 5901492
Fax: +66 2 5918629
E-mail: ICD10@health.moph.go.th

Dr med. Michael Schopen, Deutsches Institut für Medizinische Dokumentation und Information DIMDI, Weisshausstrasse 27, D-50939 Köln
Tel: +49 221 4724 325
Fax: +49 221 4114 29
E-mail: schopen@dimdi.de

Dr Pichai Tangsin, Director, Health Information Division, Ministry of Public Health, Tivanond Rd., Nonthaburi 11000, Thailand
Phone: +66 2 590 1560
Fax: +66 2 591 8629
E-mail: peach@health.moph.go.th

List of Documents

WHO/HST/ICD/C/97.1	Draft Agenda
WHO/HST/ICD/C/97.2	List of Participants
WHO/HST/ICD/C/97.3	List of Documents
WHO/HST/ICD/C/97.4	Annual Report of HST Classification-Related Activities
WHO/HST/ICD/C/97.5	Annual Report of the Activities of the WHO Collaborating Centre for the Classification of Diseases, Australia, 1996
WHO/HST/ICD/C/97.6	Annual Report of the Activities of the WHO Collaborating Centre for the Classification of Diseases in Portuguese, Brazil, 1996
WHO/HST/ICD/C/97.7	Annual Report of the Activities of the WHO Collaborating Centre for the Classification of Diseases, China, 1996
WHO/HST/ICD/C/97.8	Annual Report of the WHO Collaborating Centre for the Classification of Diseases, England, 1996
WHO/HST/ICD/C/97.9	Annual Report of the Activities of the WHO Collaborating Centre for the Classification of Diseases in French, 1997
WHO/HST/ICD/C/97.10	Annual Report of the Activities of the WHO Collaborating Centre for the Classification of Diseases in Arabic, Kuwait, 1996
WHO/HST/ICD/C/97.11	Annual Report of the Activities of the WHO Collaborating Centre for the Classification of Diseases, Russia, 1996
WHO/HST/ICD/C/97.12	Annual Report from the WHO Collaborating Centre for the Classification of Diseases in the Nordic Countries, 1997
WHO/HST/ICD/C/97.13	Annual Report of the Activities of the WHO Collaborating Center for the Classification of Diseases for North America, USA, 1996

WHO/HST/ICD/C/97.14	Annual Report of the Activities of the WHO Collaborating Centre for the Classification of Diseases, CEVECE, Venezuela, 1996
WHO/HST/ICD/C/97.15	Annual Report of the Activities of the ICD Office, Statistics and Information Department, Ministry of Health and Welfare, Japan, 1996
WHO/HST/ICD/C/97.16	Annual Report of the Activities of the WCC, Dutch Classification and Terminology Committee for Health, The Netherlands, 1996
WHO/HST/ICD/C/97.17	EUROSTAT Project on Cause of Death Statistics by the WHO Collaborating Centre for the Classification of Diseases in French
WHO/HST/ICD/C/97.18	Report on the International Collaborative Study on Multiple Cause Analysis by the WHO Collaborating Centre for the Classification of Diseases in French
WHO/HST/ICD/C/97.19	Analysis of differences between ICD-9 to ICD-10 in the latest National Patient Survey, Japan
WHO/HST/ICD/C/97.20	Implementation of ICD-10 in Brazil
WHO/HST/ICD/C/97.21	Collaborative Study on the Application of the Selection Rule 3: The Mortality by Bronchopneumonia, Brazil
WHO/HST/ICD/C/97.22	Lay Reporting of Health Information, Brazil
WHO/HST/ICD/C/97.23	Batch Processing of Causes of Death by the SCB System by Celso Escobar Pinheiro and Augusto Hasiak Santo, Brazil
WHO/HST/ICD/C/97.24	Multiple Causes Tabulator by Augusto Hasiak Santo and Celso Escobar Pinheiro, Brazil
WHO/HST/ICD/C/97.25	Report on Changes in Vital Statistics of Japan; Effects from Implementation of ICD-10, Japan

WHO/HST/ICD/C/97.26	Clarification of ICD-10 Mortality Coding Rules and Guidelines: Progress Report from a Working Party, by Lars Age Johansson, WHO Collaborating Centre for the Classification of Diseases in the Nordic Countries and Statistics Sweden; Gérard Pavillon, WHO Collaborating Centre for the Classification of Diseases in French and Augusto Hasiak Santo, WHO Collaborating Centre for the Classification of Diseases in Portuguese
WHO/HST/ICD/C/97.27	Experiences from an Electronic Newsgroup on ICD-10 Mortality Coding and Suggestions for a Nosology Reference Group, by Lars Age Johansson, WHO Collaborating Centre for the Classification of Diseases in the Nordic Countries and Statistics Sweden; and Janet Hagey, Statistics Canada
WHO/HST/ICD/C/97.28	Registration of External Causes in Hospital Discharge Data: Finnish Experiences with ICD-9 and ICD-10, by Martti Virtanen, Finnish National Research and Development Centre for Welfare and Health
WHO/HST/ICD/C/97.29	Changes in Swedish Death Certification Practices 1984-1995, by Lars Age Johansson, WHO Collaborating Centre for the Classification of Diseases in the Nordic Countries and Statistics Sweden
WHO/HST/ICD/C/97.30	A Swedish Primary Care Adaptation of ICD-10, by Björn Smedby and Dag Swenson, Swedish National Board of Health and Welfare
WHO/HST/ICD/C/97.31	International Collaborative Effort (ICE) on Automating Mortality Statistics, WHO Collaborating Center for the Classification of Diseases for North America
WHO/HST/ICD/C/97.32	Health Insurance Portability and Accountability Act of 1996--Implications for national coding and data standards policy, WHO Collaborating Center for the Classification of Diseases for North America
WHO/HST/ICD/C/97.33	Canadian Classification of Health Interventions, Canadian Institute for Health Information, WHO Collaborating Center for the Classification of Diseases for North America

WHO/HST/ICD/C/97.34	Update on ICIDH activities in North America, WHO Collaborating Center for the Classification of Diseases for North America
WHO/HST/ICD/C/97.35	Report on the Clinical Modification of ICD-10, WHO Collaborating Center for the Classification of Diseases for North America
WHO/HST/ICD/C/97.36	Training Materials on Completion of Cause-of-Death Certification, United States, WHO Collaborating Center for the Classification of Diseases for North America
WHO/HST/ICD/C/97.37	Tabulation Lists for Mortality, ICD-10, United States, WHO Collaborating Center for the Classification of Diseases for North America
WHO/HST/ICD/C/97.38	Changes to the Index for Mortality Applications and Other Issues, ICD-10, United States, WHO Collaborating Center for the Classification of Diseases for North America
WHO/HST/ICD/C/97.39	WHO Long-term Strategy for the Development and Management of Health-related Classifications, WHO/HST/HQ
WHO/HST/ICD/C/97.40	Morbidity Coding in French Hospitals, by Dr Alain Lellouch, Medical Adviser, WHO Collaborating Centre for the Classification of Diseases in French
WHO/HST/ICD/C/97.41	Clarification of ICD-10 Mortality Coding Rules and Guidelines: Considerations about the Coding of Death Certificates with Mention of Medical Procedures, by Augusto Hasiak Santo, WHO Collaborating Centre for the Classification of Diseases in Portuguese
WHO/HST/ICD/C/97.42	Clarification of ICD-10 Mortality Coding Rules and Guidelines: Rules Sequence, Malignant Neoplasms by Gérard Pavillon, WHO Collaborating Centre for the Classification of Diseases in French
WHO/HST/ICD/C/97.43	Clarification of ICD-10 Mortality Coding Rules and Guidelines: Problem List, by Lars Age Johansson, WHO Collaborating Centre for the Classification of Diseases in the Nordic Countries and Statistics Sweden

WHO/HST/ICD/C/97.44	Report on Morbidity coding issues and developments in Australia, WHO Collaborating Centre for the Classification of Diseases, Australia
WHO/HST/ICD/C/97.45	Australian Mortality Classification Research Program, WHO Collaborating Centre for the Classification of Diseases, Australia
WHO/HST/ICD/C/97.46	Proposals for change to the ICD-10 from the Australian Centre, WHO Collaborating Centre for the Classification of Diseases, Australia
WHO/HST/ICD/C/97.47	Education and Training in the Western Pacific and South East Asia, WHO Collaborating Centre for the Classification of Diseases, Australia
WHO/HST/ICD/C/97.48	Revised Medical Certificate of Cause of Death: Pilot Study in England by Dr Paul Aylin, Office for National Statistics, England
WHO/HST/ICD/C/97.49	Accuracy of Cause of Death Statements on Death Certificates and the International Comparability of Mortality Statistics by Professor Ruy Laurenti, WHO Collaborating Centre for the Classification of Diseases in Portuguese; Dr Paul Aylin and Professor Michel P. Coleman, Office for National Statistics, England
WHO/HST/ICD/C/97.50	ONS Bridge-Coding Study of the Change from ICD-9 to ICD-10 for Mortality Data in England and Wales by Dr Cleo Rooney, Office for National Statistics, England
WHO/HST/ICD/C/97.51	United Kingdom Experience in the Use of the Asterisk and Dagger Systems in ICD-10 by Dr John S.A. Ashley, NHS Centre for Coding and Classification, England
WHO/HST/ICD/C/97.52	Impact of Automated Coding in Australia by Dr John Donovan, Australian Institute of Health and Welfare
WHO/HST/ICD/C/97.53	Assessment of Two Alternative Methods (Guidelines or Examples) in Completing Death Certificates by Gérard Pavillon and Françoise Hatton, WHO Collaborating Centre for the International Collaboration of Diseases in French; Eric Jougla, INSERM; and Laurence Cherie-Challine, Ministère de la Santé, France.

WHO/HST/ICD/C/97.54	Report on Changes in Vital Statistics of Japan, 1995; Effects from Implementation of ICD-10 and Revision of Form of Death Certificate by Dr Kenichi Oomi and Ayako Yamamoto, Ministry of Health and Welfare, Japan
WHO/HST/ICD/C/97.55	The Improvement of Statistical Records of Causes of Death by Professor V. K. Ovcharov and Dr Eugeny A. Tishuk, WHO Collaborating Centre for the Classification of Diseases, Russia
WHO/HST/ICD/C/97.56	Changes in Swedish Death Certification Practice - What is the Cause? by Lars Age Johansson, WHO Collaborating Centre for the Classification of Diseases in the Nordic Countries and Statistics Sweden
WHO/HST/ICD/C/97.57	Effect of Changes in Death Certificate Format on Cause-Specific Mortality Trends, United States, 1979-92 by Donna L. Hoyert, Marian F. MacDorman and Harry Rosenberg, WHO Collaborating Center for the Classification of Diseases for North America
WHO/HST/ICD/C/97.58	Proposed ICD-10 Updates - 1997, WHO Division of Health Situation and Trend Assessment
WHO/HST/ICD/C/97.59	The NCHS Home Page: Mortality Data from the National Vital Statistics System, WHO Collaborating Center for the Classification of Diseases for North America
WHO/HST/ICD/C/97.60	Bibliographic References on Multiple Causes of Death by Augusto Hasiak Santo, Brazil
WHO/HST/ICD/C/97.61	Bridge Coding between ICD-9 and ICD-10: Underlying and Multiple Causes of Death. Preliminary Report by Augusto Hasiak Santo.
WHO/HST/ICD/C/97.62	Australian Collaborating Centre for the ICIDH, WHO Collaborating Centre for the Classification of Diseases, Australia

WHO/HST/ICD/C/97.63	Opinions on the proposals about revision of the ICD-10 from WHO Collaborating Centres in the 1996 Meeting of Heads of WHO Collaborating Centres, Office of the ICD, Japan
WHO/HST/ICD/C/97.64	Report of Activities on ICD in the Region of the Americas, PAHO/AMRO