



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

Cardiff, Wales
17-22 October 1999

REPORT

1. Opening of the meeting

Participants were welcomed to Cardiff by Ms Jane Hutt, the Health Secretary for Wales, at a ceremony held at the National Assembly for Wales.

The meeting was officially opened by Dr T. Bedirhan Üstün, WHO Global Programme on Evidence for Health Policy (GPE) on behalf of Dr J. E. Asvall, Director of the WHO Regional Office for Europe and Dr Gro Harlem Brundtland, Director General of the World Health Organization.

2. Election of officers

In accordance with established custom at the annual meetings of Heads of WHO Collaborating Centres for the Classification of Diseases, the Head of the host centre, Dr A.J. Fox, was invited to act as Chairperson.

Professor Ruy Laurenti, Dr Richard Madden and Professor Bjorn Smedby agreed to act as Vice-chairpersons.

Dr Cleo Rooney and Dr Michael Schopen accepted responsibility for coordination of the preparation of the report of the meeting with the assistance of participants from the Collaborating Centres for North America, the United Kingdom and the Western Pacific.

3. Consideration and adoption of the agenda

In order to accommodate the other commitments of certain participants it was decided to delay discussion of the work plans of the WHO secretariat and the Collaborating Centres (Session 2) until later in the meeting. The remainder of the agenda was adopted as presented.

4. Business agenda

Participants started their work in the working groups throughout Monday afternoon, Tuesday and Wednesday. Reports of the working group meetings are appended:

- Links with Other Classifications Committee (Annex I)
- Implementation of ICD-10 Committee (Annex II)
- Implementation of ICD-10 Committee, Training and Credentialling Subgroup (Annex III)
- Update Reference Committee (Annex IV)
- Electronic Tools Committee (Annex V)
- Mortality Reference Group (Annex VI)

5. Joint Work Plan Session

Beginning this session the secretariat presented the Joint Work Plan and discussed selected items with the Heads of Centres. While 20 years ago a focus was set only on mortality and the ICD, now a wider view on health and disease outcome required a family or suite of classifications giving the ICD and the ICIDH equal status. The work plan was intended to be not only visionary but also a policy document and a business plan listing activities, resources and products thus following the usual four column design of WHO work plans. It was acknowledged that resources are limited both within and outside WHO.

Both the secretariat and the Heads of Centres felt that there was need for a concept paper to be written jointly to serve as an operational document for inclusion of classifications in the family.

There was considerable discussion about the role and composition of the Expert Advisory Committee, whether it would act above the Heads of Centres for the whole family of classifications, whether it is in fact the Heads of Centres and whether it is to advise WHO or the Collaborating Centres. It was agreed that the Expert Advisory Committee was a policy group consisting of Heads of Centres (ICD, ICIDH and joint centres), giving advice to WHO and that Executive or Advisory Committee would be a better name.

Furthermore, the meeting discussed the equal status this model gives to the ICIDH whereas ICD-10 was previously the core classification. As each classification will have different needs in terms of training, implementation and tools, it was doubted that one committee could deal with all of these. Meeting participants also questioned whether all the ICD centres would get the necessary resources to cover the ICIDH or would be able to merge with the separate ICIDH centres. The Heads of Centres urged that current work around the ICD and its products continue and that Centres that are making a substantive contribution to implementing ICD-10 be given equal footing to Centres that have terms of reference for both ICD and ICIDH.

The secretariat explained that putting the ICD and the ICIDH together aimed at improving the classification of health status over the whole of life and develops a vision for the joint use of both classifications in a health information system.

Further discussion was devoted to the relevance of several short tabulation lists as a means for data aggregation and to a primary care version of ICD-10 similar to the primary care version of Chapter V of ICD-10. This could be the start of collaborative work with WONCA.

The meeting took into consideration that the highly ambitious work plan would need considerable resources not only at the Collaborating Centres but also at WHO. The secretariat agreed and assured that WHO will act as a fundraiser for this plan. The Centre Heads felt that there was also need for a finite list of tasks which are achievable within the next year and that the relevant comments on the work plan from the working groups of this year's Centre Heads meeting should be incorporated. It was agreed that the Joint Work Plan would be revised together with the rapporteurs of this meeting in Geneva and be sent to the Centres for approval afterwards.

After this discussion of the Joint Work Plan, working groups summarized their sessions on Monday and Tuesday.

6. Plenary Session Thursday 21 October

The meeting heard reports from the working groups which met on Wednesday and on Thursday morning: The Links with Other Classifications Committee [links between classifications and the relationship with ICECI], the Training and Credentialling Subgroup, Electronic Tools Committee and Update Reference Committee. Full reports of the meetings of the work groups are appended. Several issues were discussed by the plenary meeting:

Update Reference Committee (URC)

The Heads of Centres endorsed the setting up of the URC, and its terms of reference [appended], as well as giving their agreement to the recommendations of the Mortality Reference Group (MRG) regarding modification rule A.

Other Working Groups

A standard for the conduct of working group meetings was agreed, based on the experience of the MRG for those groups working through telephone conferences.

The dates for telephone meetings would be set to suit the annual updating process as well as the participants. They would be held at 7 a.m. US Eastern Standard Time, to allow maximum participation. This will be 9 p.m. for the Australian Centre, 9 a.m. for Sao Paulo and during the working day for centres in Europe. Teleconferences will be organized by WHO headquarters. Conversation will be primarily in English. It will be important that documents to be considered at these meetings be circulated well in

advance, and draft reports sent by e-mail to all members for approval as soon as possible. This will help centres for whom English is a second language to participate fully.

The groups will try to take decisions by consensus. Where voting is needed, it would be on the basis of one vote per centre or designated organization not individual participants. The terms of reference of working groups are appended to this report. They will be expected to provide an annual report of their activities, including work plans and progress toward objectives to the Heads of Centres.

Membership of most working groups will be through nomination by collaborating centres to the chair of the group. Membership of the Electronic Tools Committee is at present open to individuals with relevant experience and time who wish to participate.

The Implementation of ICD-10 Committee and its Subgroup on Training and Credentialling developed preliminary questionnaires on ICD-10 Implementation, Needs Assessment for ICD-10 Mortality Medical Coders and Needs Assessment for ICD-10 Morbidity Medical Coders. It was agreed that these would be finalized and then fielded by WHO in conjunction with a broader survey effort to avoid overloading countries with individual surveys from each subgroup. The Training and Credentialling Subgroup and the Electronic Tools Committee separately intended to survey collaborating centres on specific training materials and electronic tools. Other groups may also wish to add questions.

Participation

The Moscow and Beijing Centres and two WHO Regional Offices had been unable to attend this annual meeting. It was felt that greater efforts needed to be made to be more inclusive and to facilitate fuller participation.

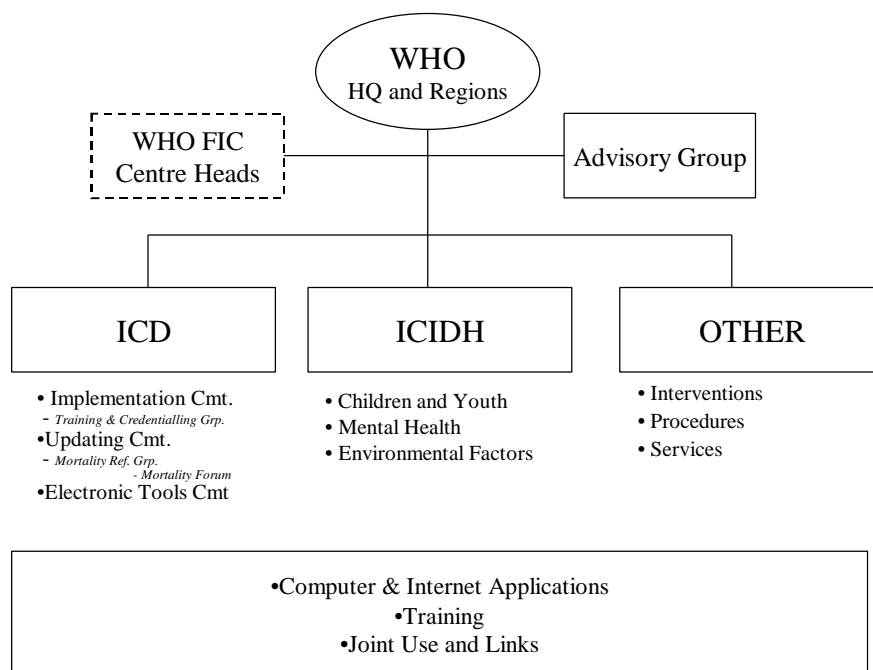
Areas with obstacles to participation might be adopted by centres which are nearby or share language or cultural affinities. Native English-speakers still need to be reminded to speak slowly and clearly. Papers of this meeting will be made freely available on the WHO website.

Resources

Overseas development agencies, statistical organizations such as EUROSTAT and other organizations may be able to help with resources to enable poorer countries to participate more fully, and to share expertise. WHO HQ has applied for resources to employ three whole time personnel in the classification group.

The secretariat needs to be clear what resources are being provided or pledged by the Collaborating Centres for activities identified in the Joint Work Plan. To facilitate this, the activities identified in the reports of Collaborating Centres and work groups will be mapped to the Joint Work Plan after the meeting. This will make it possible to draw up a business plan with achievable objectives, and an aspiration plan for which resources must be sought.

Overall structure of activity



A revised structure for the organization of the Collaboration on International Health Related Classifications was presented by the secretariat.

This included the WHO Headquarters and the Regional Offices as a single entity, and an Advisory Group, which would be limited in number, drawn in part from existing collaborating centres on the ICD, the ICIDH and other classifications as well as joint Centres and in part from other stakeholders and experts on health information and classification needs.

The Heads of the ICD centres would continue to meet annually to plan and share their work. Joint ICD/ICIDH /Other classifications meetings may also take place as appropriate.

7. Host Centre Presentations

The United Kingdom Centre gave a series of informative presentations related to:

- data quality and standards
This session illustrated the importance of data quality and standards with reference to the remit of the National Health Service Information Authority in terms of national training policy, review panel/help desk, examinations etc.

- clinical indicators
This presentation showed the potential of national databases for evaluating and monitoring care provided by the National Health Service.
- clinical and health outcomes knowledge database
This session demonstrated a wide range of actual use of existing classifications in a structured way (to avoid the need for *ad hoc* lists) to illustrate some of the data gaps and limitations and the ways in which they are being addressed; and to show how the quality cycle is being applied through further investigation and action following publication of data based on the classifications.

8. Next meeting

The Sao Paulo Centre offered to host the next meeting of Heads of WHO Collaborating Centres for the Classification of Diseases which will take place in Rio de Janeiro, Brazil from 15 to 21 October 2000. The Nordic Centre proposed that the classification of adverse events and near events be one of the themes for scientific papers for the meeting.

Action summary

Secretariat

Develop a concept paper to be written jointly with the Collaborating Centres to serve as an operational document for inclusion of classifications in the family.

Map the activities identified in the reports of Collaborating Centres and work groups to the Joint Work Plan so that a business plan with achievable objectives can be drawn up.

Revise the Joint Work Plan and send to Centre Heads for comment.

Endeavour to ensure fuller participation in the annual meeting by the Centres and by the Regional Offices.

Review proposed recommended changes to the alphabetical index and report any problems to the Update Reference Committee.

Obtain clarification regarding the proposed changes to definitions and rates/ratios relating to maternal mortality (Background Paper 08) and report back to the Mortality Reference Group.

All working groups

Provide an annual report of their activities including work plans and progress towards objectives to the annual meetings of Centre Heads.

All Centres

Send an electronic copy of all national versions of ICD-10 and speciality-based adaptations to the secretariat for inclusion in a metadatabase system.

Provide feedback to the Implementation of ICD-10 Committee on "Considerations prior to implementation of ICD" See Annex II.

Links with Other Classifications Committee

It was agreed that a Links with Other Classifications Committee be established. Its work programme up to the 2000 Centre Heads meeting was to be as follows:

- develop a concept paper to explain the Family of Classifications and prepare a new diagram (*Richard Madden and Willem Hirs*)
- a protocol should be developed to give countries that do not have an interventions classification some guidelines on a practical way forward. (*Donna Pickett and Candy Longmire*).
- a small group should develop a sentinel list of interventions, ensuring both a policy and population focus. (*Gunnar Schioler*).
- it would be useful to look at a broad classification of the nature of interventions by type. (*John Ashley*).
- more considered recommendations on the respective roles of ICECI and Chapter XX of ICD-10 should be brought back to the Heads of Centres meeting in 2000 by a group comprising representatives of the Centre Heads and the ICECI Working Group (*Donna Pickett to convene*).
- the Group should examine the results of using ICECI and ICD-10 (to code routine data) before recommending change.
- the Group should explore the enhancement of ICECI field trials and to include comparisons with ICD Chapter XX.
- initially there should be discussions between WHO (assisted by the Centre Heads) and WONCA with a view to considering a 'marriage' or 'friendship'. The Nordic Centre would ensure representation of Centres interested in the WHO/WONCA discussions.

- the WHO reply to WONCA should be of the nature of a holding reply, suggesting discussions. A more detailed response should await the outcome of those discussions.
- it was agreed that a relationship between the ICPC and the ICD should be explored similar to the relationship between SNOMED and Read Codes.
- it was proposed that a small working group be convened by *Alan Davies* to formulate criteria to enable clinical terminologies to map to the WHO Family of Classifications. It was also agreed that this work should be incorporated into the workplan.
- develop a short report highlighting issues on adaptations (*John Ashley, William Hirs and input from André L'Hours*)
- terms of Reference should be reviewed in 2003 for appropriateness etc.
- organize a meeting on 8 December 1999 in London.

Implementation of ICD-10 Committee, Training and Credentialling Subgroup

Finalize a needs assessment for mortality and morbidity medical coders that can be fielded by WHO in conjunction with a broader survey effort.

Survey all collaborating centres to catalogue and characterize current educational and training curricula and modules.

Explore national and international organizations (e.g. the International Federation of Health Record Organizations) with which mortality medical coders and nosologists might affiliate. Further explore the possibility of initiating, through these organizations, an international process for credentialling mortality medical coders and nosologists.

See also Annex III 2.4, 2.5, 4.1, 4.2, 4.4, 4.6, 4.9,

Electronic Tools Committee

Survey all Collaborating Centres to compile a more definitive list of existing tools.

LINKS WITH OTHER CLASSIFICATIONS COMMITTEE

Report of meeting in Cardiff 19-21 October 99. The discussion was structured using the elements of the 'Family' model in Annex 1 of paper 99.55

The following terms of reference were drafted by the United Kingdom Centre in consultation with several other centres.

1. To review and clarify the concept of a family of health-related classifications. To draw up criteria in respect of the framework, scope, structure and purpose for designation as part of the family.
2. To consider related members and adaptations, with special focus on those relevant to international comparison of statistical material and measurement of health states for Burden of Disease work and other purposes.
3. To consider the place of WHO in the development, and/or accreditation of instruments which conform to this concept.
4. To use these criteria to determine the boundaries of the family, and establish the nature of the relationships, particularly in terms of broad structure and content between existing members or potential members. To clarify the necessity for compatibility of family members with ICD-10, and at what level.
5. To specifically identify the relevance, to the family as a whole, of related members, particularly nomenclatures, taxonomies or other similar instruments which may be part of the family, or linked to individual members of it. To work with the International Standards Organisation TC 215 Working Group 3: Health Informatics – Health Concept Representation.
6. To suggest mechanisms by which the criteria for family membership might be enforced and establish dialogue with organizations responsible for instruments considered.
7. When required to develop/provide evidence to look at existing and potential relationships with ICD-10.
8. To identify resource needs and possible funding sources within countries or international organizations so that a balanced approach is followed to development of classifications within the family.

1. ICD and ICIDH (Includes Papers 99.40, 99.30)

The secretariat reported that the nature of the job WHO is doing has changed since the original need for the ICD for mortality statistics. Needs have expanded to cover the whole range of health information.

From a WHO perspective the basic classifications are: the ICD for mortality and morbidity, ICIDH for functional aspects and one for procedural intervention classifications (but this no longer exists). There is a need for a coherent agreed set of classifications/members and developed inter-relations.

Concern was expressed that the diagram in the Joint Work Plan shows the ICD and ICIDH as appearing to have equal status. There still is a difference between these:

- ICD is constitutionally based, has a long history and worldwide acceptance.
- ICIDH-2 has not yet been finalized.

The secretariat reported to the meeting that WHO is putting significant effort and priority into ICD and ICIDH.

Both classifications are necessary to describe health information and health outcomes in full. The broad mandate within WHO on Evidence for Policy requires that work on both classifications proceed simultaneously. While this was generally accepted, it was also agreed that we must not lose sight of the urgency of the ICD work programme and there should be a balanced approach.

The Nordic Centre presented a diagram to illustrate the process of a person's health care from the beginning of a health care episode to its final outcome. Information at various stages requires different classifications. Although the ICD could provide assistance at different stages, it was only complete in describing diagnoses. It was emphasized that this sketch is purely to identify the need for documentation and classification. Several speakers commented on the Nordic Centre's sketch. While it was presented as a medical model different views e.g. focus on outcomes of health condition, could give a more social perspective.

The North American Centre pointed out that the ICIDH is meant to be a classification for all people not just describing outcomes of health condition.

It was agreed that we must be responding to health information needs. Different users will need different types of classifications. Therefore there is room (in terms of WHO) to develop a set of products to capture the information. The ICD is the founder member but there will be other members.

The United Kingdom Centre provided the following illustrative matrix showing broad headings of Application versus Measurement/instrument. Applications include mortality, hospitalization, ambulatory care and injury and cancer incidence. Instruments include ICD, ICIDH, ICPC and ICECI.

MEASUREMENT/ INSTRUMENT	APPLICATION					
	Mortality	Hospitalization	Ambulatory Care	Injury	Cancer Incidence	etc.
Disease (ICD)	v	v	v	v	v	
Outcome (ICIDH)	x	v	v	v	v	
Intervention	v	v	v	v	v	
Other	x	x	v	v	v	
etc.						

It was acknowledged that:

- There is different intellectual ‘ownership’ of the matrix in horizontal and vertical aspects.
- Each cell may represent a different horizontal and vertical view – which may lead to conflict.
- There is need for a general oversight of the complete matrix to address boundary issues gaps, overlaps etc.

The matrix demonstrates some of the different views/domains and conflicting views, gaps etc and it was agreed that more work on the matrix to explain the concepts behind a family of health classifications would be useful. It was also considered that the ICD is trying to capture everything but not necessarily doing this well. Further considerations should be given to the elements within ICD-10 that should be given to other classifications. Some of the questions to be addressed are: What kind of health information do we need internationally? What classification systems do we need? What is currently being done and how can we build on that? Feedback from users of various classifications was essential in this process. WHO is necessarily beginning with a top down approach. In particular, the information needs for summary health measures have been highlighted. Feedback from Member States is essential to capture the family model. The United Kingdom Centre raised the link between terminologies and classifications. England is moving toward an Electronic Patient Record using clinical terminology mapped to ICD, but is keen for some direction from WHO on cross mapping to other classifications that are approved by WHO.

In summary:

- It was agreed that ICD and ICIDH are both key members of the ‘Family’ of health classifications.
- The ‘Family’ was considered a good term to use.
- WHO should be the Family “proprietor” although the precise implications of this need to be fully considered.

- It was agreed that we must be responding to the health information needs. Different users will need different types of classifications therefore there is room (in terms of WHO) to develop a set of products to capture the information. ICD is the founder member but there will be other members.
 - Need a coherent agreed set of classifications/members and develop inter-relations.
 - Must not lose sight of the urgency of ICD work priorities and ensure a balanced approach.
- 2 Interventions/Procedures (Includes Paper 99.48)** The paper on 'Issues to be discussed in the Construction of Sentinel Operation Lists by the Nordic Centre (99.48) was reported at the meeting. It was agreed that there is value in developing a sentinel operation intervention list. This list should have a policy and population focus. If there is a desire for international statistics or regional statistics on interventions then a sentinel list is a good framework. The United Kingdom Centre suggested we should be starting at the top with a classification of the nature of interventions in which other instruments could fit. Discussion was held on earlier attempts to make international comparisons of interventions. It was reported that an indicator has been used e.g. hysterectomies, and participating countries had been asked for this information. The researcher frequently has to re-define the indicator to get a grouping they can use, essentially a lowest common denominator approach. The secretariat expressed the view that a sentinel list as a public health reporting tool is the type of information WHO would like to collect. It needs to be applicable across cultures. It was also recognized that we need to be able to respond to regional offices request for countries who do not have an *international classification*. One option would be to provide considered advice on an approach countries could adopt.

In Summary:

- It was agreed that a protocol should be developed to give countries that do not have an interventions classification some guidelines on a practical way forward. (*Donna Pickett and Candy Longmire*).
- It was agreed that a small group should develop a sentinel list of interventions, ensuring both a policy and population focus. (*Gunnar Schioler*).
- It was agreed that it would be useful to look at a broad classification of the nature of interventions by type. (*John Ashley*).

3. Injury (Includes papers 99.46, 99.47, 99.43 99.38)
International Classification of External Causes of Injuries (ICECI)

Communication between the Centre Heads and the WHO Working Party on Safety Promotion and Injury Prevention had been established at the Third World Injury Conference held in Amsterdam in 1998. Further discussion between the two groups had taken place in conjunction with the International Collaborative Effort (ICE) on Injury Statistics held in Washington D.C. in June 1999. (WHO/GPE/ICD/C/99.56) which provided the background to the session.

It was considered to be important to discuss the desirable level of comparability between the ICECI and Chapter XX of ICD-10, to establish mechanisms for the two groups to work together more effectively and to identify areas of future collaboration.

It was recognized that the ICECI may provide a good starting point to identify deficiencies in Chapter XX of ICD-10, which could then be rectified as well as to improve compatibility between the two classification schemes. In the Nordic Classification of External Causes of Injuries (NCECI) which was a predecessor of the ICECI there were only relatively few areas where there was a lack of compatibility with ICD-10.

Dr Wim Rogmans, Director of the Dutch Consumer Safety Institute and Head of the WHO Collaborating Centre for Safety Promotion and Injury Prevention, thanked the meeting for the opportunity to share thoughts and ambitions regarding the ICECI. It was felt to be an opportune time to set in process the consolidation of work in this area, to establish a common timetable and to strengthen communication.

Comments and suggestions received since the 1998 meeting in Amsterdam had been incorporated in a field trial edition of the ICECI, which was currently being tested. Compatibility between the ICECI and Chapter XX of ICD-10 had clearly emerged as an important issue. It had also been recognized as shown in document WHO/GPE/ICD/C/99.47 that ICD-10 provided an inadequate classification for the injury prevention community and that there was a need to explore the relationship between the two classifications further.

Attempts to achieve a full compatibility had resulted in a number of awkward items in the ICECI which violated the basic structure and this had led to the proposal in document 99.47 to establish a link between the two systems by means of a short tabulation list to which both classifications would map.

Compatibility was an important issue but at an intermediate level rather than at the full level.

In the general discussion that followed it became clear that opinions varied according to need and the environment in which the data were collected. For some summary uses Chapter XX of ICD-10 was considered to be adequate while for some injury surveillance applications the full ICECI was deemed to be too detailed and a short version had been proposed.

Many potential users of the ICECI could not obtain the required level of detail on a routine basis and for mortality special instruments would need to be developed. It was agreed that more research and experience were required to enable valid comparison of the relative merits of the two classifications. It was hoped that the result of the field trials would provide valuable input to this process.

The field trials were being carried out in 50 Centres in 20 countries almost half of which were low-income countries. It was expected that the results would be available by the end of November 1999. These would then be analyzed and presented to the Fifth World Injury Conference in New Delhi in 2000. The definitive version of the ICECI would then be prepared for publication.

A short version of the ICECI was being tested for morbidity in 17 states of the United States. While it was generally felt that the ICECI was not suitable for traditional mortality applications there was general agreement that more empirical evidence was required to facilitate a final decision.

The meeting decided to commission a group convened by Donna Pickett to enhance the ICECI field trials to include mortality and report back to the next meeting. A decision could then be taken regarding the relationship between the two classifications with experience with the ICECI being used either to prepare a radical revision of Chapter XX of ICD-10 or to enhance the existing classification and improve compatibility.

In Summary:

- It was agreed that more considered recommendations on the respective roles of ICECI and Chapter XX of ICD-10 should be brought back to the Heads of Centres meeting in 2000 by a group comprising representatives of the Centre Heads and the ICECI Working Group (*Donna Pickett to convene*).
- It was agreed that the Group should examine the results of using ICECI and ICD-10 (to code routine data) before recommending change.
- It was agreed that the Group should explore the enhancement of ICECI field trials and to include comparisons with ICD Chapter XX.

4. Primary Care (Includes paper 99.34)

The representative from DIMDI presented a paper describing the recent German modification of ICD-10 for general practitioners and specialists. He pointed out the difficulties and compromises required. The International Classification of Primary Care (ICPC) could not be used because of the need for a common approach across general practitioners and specialists.

The existing Swedish modification of ICD-10 for primary care was noted. Countries could benefit from their experiences.

The secretariat reported that primary care is an important area of WHO's work. It is the first contact of care and therefore there is a need to have a classification to meet information demands. The World Federation of Family Physicians (WONCA) has written to WHO putting forward a suggestion that ICPC be a part of the 'Family' of health classifications.

There was discussion around the relative strengths and weaknesses of ICD-10 modifications for injury care and ICPC. There was recognition that ICPC does have categories that do not exist within ICD-10. A link/merger of these two classifications would not be very difficult but it would mean substantial changes.

It was agreed that initially there should be discussions between WHO and WONCA with a view to considering a 'marriage' or 'friendship'. The Nordic Centre would ensure Centre representation interested in the WHO/WONCA discussions. There was also interest in the terms WHO will respond to WONCA and a suggestion for a holding response until their discussions have occurred. The secretariat reported that WHO would welcome a primary care classification in the Family and looked forward to collaboration with WONCA in developing this.

The Australian Centre stressed that these discussions should not stop other development and in relation to earlier discussions on terminologies. We should look at a similar relationship being developed between SNOMED and Read Codes for the 'marriage' between ICPC and ICD-10. It should not be seen as a competitor but to make use of the terms assembled for these purposes.

In summary:

- It was agreed that initially there should be discussions between WHO, assisted by Centre Heads and WONCA with a view to considering a 'marriage' or 'friendship'. The Nordic Centre would ensure representation of Centres interested in the WHO/WONCA discussions.
- The WHO reply to WONCA should be of the nature of a holding reply, suggesting discussions. A more detailed response should await the outcome of those discussions.

- It was agreed a relationship between ICPC and ICD should be explored similar to the relationship between SNOMED and Read Codes.

5. Other matters (Implications of UN Family of Classifications)

The secretariat will make available a document on the UN Family of classifications. The UN family includes ICD and ICIDH as reference classifications. There is a large-scale suite of classifications and the UN is looking at how this can be brought together, not to override custodians but to be aware of each other and possible cross uses. The UN sees the ICD as a model classification, and would like to mimic the level of sophistication with this classification.

6. Links with Nomenclatures

The relationship between ICD/ICIDH/ICECI and nomenclatures was discussed and it was agreed that there is an important link between classifications and nomenclatures which are be used to generate the Electronic Patient Record. As the family increases there is a need to link to terminologies/nomenclatures themselves.

In summary:

- It was proposed that a small working group be convened by *Alan Davies* to formulate criteria to enable clinical terminologies to map to the WHO Family of Classifications.
- It was also agreed that this work should be incorporated into the workplan (see Attachment).

7. Establishment of Family Committee

It was agreed to propose to Centre Heads that a Linkage with Other Classifications Committee be established. The Terms of Reference were reviewed and updated. It was considered there was no need for the ICD-ICIDH Sub-group at this stage and the reference to this group will be deleted from the Terms of Reference.

In summary:

- Develop a concept paper to explain the Family of Classifications and prepare a new diagram (*Richard Madden and Willem Hirs*)
- Develop a short report highlighting issues on adaptations (*John Ashley, William Hirs and input from André L'Hours*)
- Terms of Reference should be reviewed in 2003 for appropriateness etc.

- It was agreed that *Richard Madden* will chair the Links with Other Classifications Committee.
- A meeting has been proposed for 8 December 1999 in London.

Implementation of ICD-10 Committee

This committee is intended to oversee all activities relating to the implementation of ICD-10, including monitoring update, programs to support implementation and accreditation and training. As this relates to a core function of WHO, Dr Carlos Castillo-Salgado as a representative of a WHO regional office was selected to chair the group. The membership includes all collaborating centres with regional responsibilities related to implementation. A subgroup with terms of reference relating specifically to training issues has also been established.

Thus, the aims of the Implementation of ICD-10 Committee are:

1. To discuss important issues relating to the implementation of ICD-10 for morbidity and mortality
2. To advise on the implementation of ICD-10.

The group noted the importance of the promulgation of the implementation of ICD-10 and the need for implementation plans to be highlighted in the work plans of headquarters and regional offices.

TERMS OF REFERENCE FOR IMPLEMENTATION GROUP

1. To conduct a regular international stocktaking including:
 - 1.1 review of the current situation with regard to implementation throughout the World, including implementation plans and processes
 - the committee will develop the outline of what it needs to know but the regional offices will have the discretion to collect this information in whichever way is most appropriate
 - 1.2 review of available training materials, tools, support infrastructure
 - 1.3 review of capacity of regional offices to implement ICD-10
 - which regions have collaborating centres
 - which areas of the world do not have collaborating centres
 - 1.4 to share experiences relating to implementation.
2. To act as an international support network for countries, through the regional offices, on issues relating to implementation.

Having determined the Terms of References, the following were issues discussed by the group:

1. implementation of ICD-10 can be used as a catalyst for improvements and revitalization of vital registration processes
2. implementation is not simply a matter of training; there are individual country issues to consider

For example:

- resources – financial, human
 - skills within country
 - recognition of many different players and sometimes competing interests
 - baseline within each country – update or improvement (ICD-9 to ICD-10) or completely new data collection
 - issues of language and need for appropriate books and materials
 - requirement for complementary tools such as short lists
 - requirement for data consistency checking
 - whether basic data collection processes are adequate eg enumeration of deaths, lay reporting practices, other surveys being undertaken
3. Some of the essential steps in implementation include:
 - commitment to process at highest level eg Ministry of Health
 - consideration of the tools required eg forms, electronic tools, training materials
 - training needs eg training of trainers, coders, users of data, use of technology
 - use of a national committee with representation from all affected groups to actively support and manage implementation process
 - need for bridge coding if updating from previous classification
 - need for means of maintaining time series data
 - requirement for sufficient lead time to plan and prepare
 - need for a quality control program
 4. In light of these essential steps, the roles of the Implementation of ICD-10 Committee might be to:
 - 4.1 take stock of the world-wide situation with regard to ICD-10 implementation to identify
 - what plans have been made?
 - when is implementation to occur?
 - 4.2 identify what tools, supporting materials are required

4.3 share post-implementation experiences, for example

- measuring impact of the change
- understanding effect of change on data output and published statistics

4.4 provide support for regional offices and collaborating centres to perhaps 'adopt a country' to offer training and developmental opportunities on a long-term or continuing basis eg PAHO Regional Forum for Latin America – discussion group on the use of data, coding, definitions, multi-lingual discussions, decision-making by participants.

4.5 identify processes to improve data collection and data quality, through

- use of sentinel sites for data collection
- development of lay reporting processes
- possible use of special surveys
- development or identification of existing coding quality assessment tools

4.6 act as advocates with institutions such as UN, World Bank, and Gates Foundation, to obtain funding to develop and implement improved vital registration systems, particularly in developing nations

- support academic research in this area (funded)

4.7 encourage use of coded data as a means of improving data quality, particularly at the local level

4.8 increase the relationship with regional offices, rather than directly to headquarters, given that regional offices have a good understanding of the needs of countries within their jurisdiction

4.9 recognise that collaborating centres have much to offer, not only in terms of staff within the centres, but also through the ability to draw on national resources and a wide range of skills and contacts, project funding.

The group noted that there is a need for the Heads of Centres to more clearly articulate the link between better health classification systems -> more reliable health statistics -> overall improvements in health.

It was further noted that regional offices require technical resources, time and availability, not necessarily financial assistance from collaborating centres.

The group discussed implementation issues and determined that a short document would be produced outlining requirements and steps to be considered by countries or organizations prior to the implementation of ICD-10.

Suggested considerations prior to the implementation of ICD-10

(Note: this list may not yet be exhaustive – the Implementation Group would welcome feedback from meeting participants to expand the list where necessary.)

1. Conduct a baseline assessment of the current situation.
2. Obtain high level support and financial commitment.
3. Determine the scope for implementation
 - 3.1 translation, national versions
 - 3.2 availability of tools and products (validations, data edits, output tables and tabulations, data collection tools).
4. Develop an implementation plan and ensure involvement of stakeholders
 - 4.1 development of timeframe
 - 4.2 need for bridge coding
 - 4.3 implementation teams
 - 4.4 provide means of communication.
5. Conduct appropriate training (coders, trainers, data users, administrators, clinicians, etc).
6. Consider future analysis requirements.
7. Develop quality control mechanisms.
8. Develop update mechanisms.
9. Consider what training materials are currently available, what can be shared and where are the gaps.

**Implementation of ICD-10 Committee
Training and Credentialling Subgroup**

Present at one or both sessions of the subgroup:

Marjorie Greenberg (Chair)	Candy Longmire
Y.C. Chong	Sue Walker
Carlos Castillo-Salgado	Bedirhan Ustun
John Fox	Roberto Becker
Carlos Munoz	Ruy Laurenti
Peter Goldblatt	Cleo Rooney
Susan Cole	Lin Shane
Donna Glenn	Harry Rosenberg
Gérard Pavillon	Kerstin Carsjo
Lars Age Johanssen	Denise McCafferty
Alan Davies	Jane Miller
Angela Roberts	Remigijus Prokhorskas
Mirosław Wysocki	Sue Edwards
Michael Schopen	Marcia Fry
Brenda Smith	Lynda Houghton
Sue Smith (Recorder)	

1. It was agreed that the three papers listed against this session would not be presented in full, but the authors were invited to summarize or add comments that might be useful to this meeting of the Training subgroup.

99.35 ICD-10-AM Education in Australia (WHO/GPE/ICD/C/99.35). The most important message coming out of this report is the need to understand the breadth of the group of people who need to be trained or informed about implementation of ICD-10. All stakeholders (e.g. clinicians, epidemiologists) need to understand their role in the use the ICD.

99.41 Coding Education in South East Asia and Western Pacific Regions of WHO (WHO/GPE/ICD/C/99.41). The Australian Centre began ICD-10 training in the South East Asia Region in 1996, following requests for assistance from WHO/SEARO. Standardized medical record and health information management training has also been developed and presented. Course evaluation helped to identify issues e.g. who should attend the training courses (often inappropriate people were nominated) and difficulties in assimilating training for people whose first language is not English. Training must be culturally appropriate.

99.29 Training for Implementing ICD-10 for Mortality in the United States (WH=/GPE/ICD/C/99.29). In 1998, ICD-9/ICD-10 conversion classes were held for about 150 mortality coders from across the states, culminating in re-accreditation tests for multiple cause coding. During 1999 System Manager's courses have been held, successfully achieving the objective of making the states more self-reliant, more able to support their own use of the mortality coding systems. The United States National Center for Health Statistics (NCHS) were in the process of training new coders, using pre-course introductory work, tutored courses and post-test practice and validation, based on a set of training and test decks produced on CD-ROM. New advanced courses are planned, dealing with identified problem areas, queried records, etc. International classes are planned for 2000.

Another initiative has been the training of 120 epidemiologists/statisticians in the use of the ICD. As some states have no mortality nosologists, researchers need to know how to use the ICD for themselves. A 240-page textbook has been produced in support of this course.

It was agreed that this was an impressive amount of work and that many countries would value access to materials which have already been produced to aid training in ICD-10. It was queried whether these materials are available electronically, or whether any of the training courses had been videotaped.

NCHS has not yet videotaped their courses. Some of the training materials could potentially be made available electronically. NCHS hopes to develop preliminary training on an interactive electronic media, but feels it is essential to have an element of person to person tutored training.

It was reported that Colombia has video-taped its training course, and that PAHO has set up a Latin American e-mail forum similar to the International Mortality Forum, to overcome the language difficulties for those countries.

At the International Collaborative Effort (ICE) on Automated Mortality Coding, several countries had reported that they were developing test and training record decks and had already agreed to share these with other countries.

2. Discussion moved on to the Terms of Reference (TOR) of this Training and Credentialling Subgroup of the Implementation of ICD-10 Committee.

A question was raised about the difference between a 'mortality medical coder' and a 'nosologist'. In clarification it was accepted that a 'medical coder' is a person able to effectively use the ICD to code clinical records, whilst a 'nosologist' has a deeper medical knowledge and understanding of causal relationships, and is able to make decisions in cases which may not be explicitly described in the ICD.

Many countries have found that automation of mortality coding has reduced the numbers of coders but the need for them is increased, as the cases which cannot be automatically coded are more complex. However, many nosologists are both

underpaid and undervalued within their own organizations. Nosological input is essential to continued development of automated tools. The role of nosologists should be preserved and enhanced. With such small numbers of mortality coders in most countries, it is essential to establish international collaboration to maintain the skills base and improve the comparability and quality of data.

In discussing the two groups of objectives, the split into mortality medical coding and broader issues was queried. Many people felt that several of the objectives raised under mortality were equally applicable to morbidity coding. However, it was generally accepted that morbidity coding has a much wider base within each country, whereas the number of mortality coders is generally so small that they did not reach the critical mass necessary for effective development of skills within their own group. Credentialling systems have already been established for morbidity coding in some countries but with such small numbers coding mortality it is not feasible to develop appropriate credentialling systems.

It was agreed that the Terms of Reference should be revised to begin with a high level introductory objective describing the purpose of establishing the Training and Credentialling subgroup, then the general objectives applicable to both morbidity and mortality, and the additional objectives specific to mortality.

Action: Marjorie Greenberg

Clarification of the Eurostat project on Automated Coding Systems was requested. The Paris Centre explained that the objective of this project had been to survey the procedure used for coding in European countries. The project had run from 1997 to 1998, looking mainly at the automated systems in use. Sweden, the United Kingdom, the Netherlands and France had been involved in the project. The recommendations from the project were compatible with recommendations arising from the ICE on Automating Mortality Statistics, and were concerned with training, comparability and standards for input and output. The final report and recommendations were submitted to the Heads of Centres meeting last year. A number of people were interested in seeing this report. The Paris Centre agreed to send a copy of the Heads of Centres paper to the North American Centre for distribution to the group.

Action: Gérard Pavillon/Marjorie Greenberg

It was agreed that the objective of initiating an international organization for the purpose of credentialling coders did not mean that this group should endeavour to set up a physical body with international representation; this would be difficult to achieve and bureaucratic. It is more likely to be an association which could affiliate with an international organization (e.g. IFHRO). It was noted that IFHRO is an NGO already in official relations with WHO.

The certification practices of each country mean that training has to be focused on each participating country's data, and it is questionable whether an international test of coding competence could be defined. In which case, the official status of any accredited coder was questioned – would accreditation be national or international? This would need further discussion.

The need to identify and train other groups, e.g., clinicians and certifiers, was discussed. It was agreed that training clinicians in coding according to the ICD would be detrimental as it may change their certifying practices and thus the data. However, an understanding of the use of the classification and the need for good certification practices would be beneficial.

Regarding WHO training materials, many people were surprised to discover that any such materials existed. However, it was agreed that this subgroup could not evaluate any other body's training materials, but they would be glad to review and offer constructive feedback to help build on best practice. The development of TENDON could be seen as a model of such review and feedback, with an international group providing feedback at the first TENDON training course, which then influenced its further development.

Within the objectives the WHO Family of International Health Classifications (WHO FIC) is mentioned. It was decided that this subgroup should concentrate on the ICD as its priority, but that it would be appropriate to mention the WHO FIC under broader issues.

3. At the second session of the subgroup, Marjorie Greenberg distributed a revised Terms of Reference, which incorporated the suggestions raised at the first session. A number of minor amendments were requested to clarify points in the Terms of Reference and it was agreed to incorporate these and issue the Terms of Reference as approved.
4. The group then considered the relative priorities of the objectives and how to initiate the tasks.

Specifically, for both mortality and morbidity coding and nosology:

Objective 1.2, to conduct a needs assessment, is of great importance, but needs to be completed within the WHO programme for reviewing the status of all countries, to avoid overloading countries with individual surveys from each subgroup. This group will work on developing the questions which need to be included in the WHO survey. Candy Longmire agreed to start developing this list of questions.

Action: Candy Longmire

Objective 1.4, to catalogue, characterize and disseminate information on current curricula and modules and identify gaps, can be started in parallel with 1.2. Collaborating Centres and WHO Regional Offices can identify the training materials already known to them. The owners of the materials will then be asked to characterize their products. It was agreed that a standard for the information to be provided in the characterisation needs to be established. Candy Longmire, Sue Walker, Donna Glenn and Marjorie Greenberg agreed to meet and begin listing the items to be covered in the characterization. Marjorie will then circulate to the rest of the group via e-mail.

Action: Marjorie Greenberg

It was noted that facilities to translate materials into other languages are more readily available and the group will need to be able to assess which materials could most easily be translated to meet the urgent needs of developing countries. It was also agreed that materials relating to any version of ICD-10 need to be included in the catalogue i.e. national versions as well as the official WHO version ICD-10.

Objectives 1.1 and 1.3 are to identify the functions and skills of medical coders and nosologists. It was felt that the best approach would be for the North American Collaborating Centre to provide their understanding of the functions and skills, and to collect comments from the group by e-mail.

Action: Donna Glenn

Objectives 1.5 and 1.6, reviewing the WHO training materials and existing mechanisms for sharing knowledge, need to be included in the cataloguing process. It will then be possible to decide how to achieve these two objectives.

In respect to mortality medical coders and nosologists:

Objectives 2.1 and 2.2, the recommendations from the ICE and Eurostat Project will be circulated to the group for review.

Action: Gérard Pavillon/Marjorie Greenberg

Objective 2.4, exploring national and international organizations with which these skilled professionals might affiliate - the Australian and North American Collaborating Centres have some links with organizations that might be willing to accept affiliations from nosologists and will investigate them further.

Action: Sue Walker/Donna Glenn/Amy Blum

Objective 2.3, exploring the possibility of initiating an association for the purpose of credentialling mortality medical coders and nosologists and representing their profession, will be pursued once objective 2.4 is complete. In the meantime, NCHS agreed that they would make available to any interested country copies of their training qualification deck and the methodology used to weight the records. Each country would have to apply their own weights to make the validation deck viable for accrediting their own coders.

Regarding training more broadly:

Objective 3.1 and 3.2, identifying additional groups requiring education, have already been started in the discussions of the group. The North American Centre agreed to e-mail out to the group lists of other groups requiring education about ICD-10 or proper completion of source documents.

Action: Donna Glenn

Objective 3.3, specifying the purposes of the training, will be combined with 3.4, to catalogue, characterize and disseminate information on current curricula and

modules. This and reviewing relevant WHO training materials (new objective 3.4), will be incorporated with similar action on objectives 1.4 and 1.5.

(New) Objective 3.5, consideration of training needs for other members of the WHO FIC, is not a priority at this time, and will be reviewed when the other activities listed above have been accomplished.

5. Marjorie Greenberg closed the meeting with thanks to all who had contributed to the subgroup. The efforts of all concerned were much valued and had made a significant contribution to establishing an agreed international plan for ICD-10 Training and Credentialling.

6. *Terms of Reference*

Implementation of ICD-10 Committee

Subgroup on Training and Credentialling

Recognizing:

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

The Subgroup on Training and Credentialling is established to:

- advise WHO and the WHO Regional Offices on best training practices
 - provide a network for sharing expertise and experiences on training
 - work with WHO Regional Offices in identifying needs for skills and training in countries both covered and not covered by Collaborating Centres
 - address the unique issues concerning mortality medical coders and nosologists in an automated environment
 - make recommendations to WHO and the WHO Collaborating Centres for the Classification of Diseases through the Committee on the Implementation of ICD-10
1. Specifically, for both mortality and morbidity coding and nosology, the Subgroup on Training and Credentialling will:
 - 1.1 Identify the critical functions of medical coders and nosologists.
 - 1.2 Conduct a needs assessment through the Collaborating Centres and Regional Offices, for the skills and training resources of medical coders and nosologists, including future projections. This assessment will be conducted within the wider WHO survey process to which this subgroup will contribute questions.

- 1.3 Define the skills and levels of training required for medical coders and nosologists.
 - 1.4 Catalogue, characterize (e.g. purpose, subject, language, availability, media, and technology) and disseminate information on current educational and training curricula and modules and identify gaps within these activities.
 - 1.5 Review relevant WHO training materials and the mechanisms for their dissemination.
 - 1.6 Identify and promote mechanisms for ongoing enhancement of skills and knowledge (e.g., Mortality Forum, Latin American Forum on ICD and the Family of International Classifications)
2. Further, in respect to mortality medical coders and nosologists, the Subgroup will:
- 2.1 Review the recommendations of the International Collaborative Effort on Automating Mortality Statistics concerning training.
 - 2.2 Review related recommendations of the Eurostat Project on Automated Coding Systems and other relevant studies.
 - 2.3 Explore the possibility of initiating an international association for the purpose of credentialling mortality medical coders and nosologists and representing their profession.
 - 2.4 Explore national and international organizations (e.g., the International Federation of Health Record Organizations) with which these skilled professionals might affiliate.
3. Regarding training more broadly, the Subgroup will:
- 3.1 Identify the additional groups requiring education and training about ICD-10 (e.g. statisticians, epidemiologists, relevant systems managers, clinicians, and medical students).
 - 3.2 Identify groups requiring education and training in the proper completion of source documents (e.g., death certificate, hospital record)
 - 3.3 Specify the purposes of the training
 - 3.4 Catalogue, characterize and disseminate current educational and training curricula and modules and identify gaps within these activities.
 - 3.5 Review relevant WHO training materials and the mechanisms for their dissemination.
 - 3.6 Consider training needs and resources for other members of the Family of International Classifications.

Annex IV

Update Reference Committee

This was the first face-to-face meeting of the Update Reference Committee (URC), which so far had only communicated by e-mail. The URC had been jointly headed by Rosemary Roberts from the Australian Centre and André L'Hours from WHO Headquarters. The secretariat proposed that Professor Roberts should in future act as Chair of this group and she kindly accepted this responsibility. The main task is to decide on changes to ICD-10 which have been forwarded to the URC by the Mortality Reference Group, the secretariat and the collaborating centres so that recommendations could be made to the Heads of Centres.

1. The Terms of Reference of the Update Reference Committee were discussed and accepted as follows:
 - Determine policy on updating of ICD-10 (frequency, tabular list, alphabetical index, coding rules and guidelines)
 - Establish criteria for updates to ICD-10
 - Review and comment on ICD-10 update proposals from the Mortality Reference Group and from the Collaborating Centres
 - Submit recommendations for ICD-10 updates for ratification by Centre Heads meetings
 - Evaluate the update mechanism (structure, process, outcome)
2. Membership of the URC was confirmed as circulated.
3. The URC agreed to have three teleconferences per year and one face to face meeting at the Centre Heads meeting. E-mail will be used for the remaining communication.
4. Criteria for changes to ICD-10 were discussed and accepted as follows:
 - High volume
 - Public health impact
 - High cost, low volume conditions
 - Change in clinical knowledge affecting need for code, placement of code and index entry
 - Change in clinical terminology
 - Need for greater specificity within an existing code
 - Need for less specificity
 - Need for compatibility with other members of WHO Family of International Classifications

- Need to improve clarity or reduce ambiguity, including code titles
 - Incorrect, unclear or absent index entries
 - Typographical errors
 - Need for changes in rules or conventions
5. A format was agreed upon for submitting proposals for changes to the URC. It includes criteria and anticipated status of the proposals and will be placed on WHO and Collaborating Centre websites. The status of proposals be agreed as follows:
 - Outside scope – no action
 - Index entry – to current code
 - New code – not in existing structure
 - Change to coding rules and guidelines
 - The work plan of the URC was confirmed as circulated in WHO/GPE/ICD/C/99.45. However, the entire time schedule was taken back by two months to give more time for evaluating and commenting on a proposal.
 6. The update cycle was accepted to be three yearly for major changes to the Tabular List and annually for minor changes and changes to the index that do not change the structure of the tabular list. It was agreed to number versions of ICD-10 by adding the year of implementation. (e.g. Changes accepted in 1998 are to be published on WHO website in 1999 and will not be implemented before January 2000. This version of ICD-10 will be labelled ICD-10 – 2000. Statistics should be accompanied by a clear indication of the version of ICD-10 they are based on.
 7. The URC agreed that accepted changes should be posted annually to WHO and Collaborating Centre websites.
 8. A proposal from the Mortality Reference Group was accepted to change Modification Rule A “Senility and other ill-defined conditions” (ICD-10, vol.2, p.42) as follows:

Where the selected cause is ill-defined and a condition classified elsewhere is reported on the certificate, reselect the cause of death as if the ill-defined condition had not been reported, except to take account of that condition if it modifies the coding. The following conditions are regarded as ill-defined: I46.9 (Cardiac arrest, unspecified); I95.9 (Hypotension, unspecified); I99 (Other and unspecified disorders of circulatory system); J96.0 (Acute respiratory failure); J96.9 (Respiratory failure, unspecified); R00-R94 or R96-R99 (Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified). Note that R95 (Sudden infant death) is not regarded as ill-defined.
 9. The URC agreed that WHO Headquarters is primarily responsible for major pieces of work.
 10. The URC agreed on a proposal from the Australian Centre for an ICD-10 Meta-database System to incorporate electronic versions of ICD-10, national versions and

specialty-based adaptations. To start this work all national electronic versions should be sent to WHO Headquarters (André L Hours)

11. The secretariat informed the meeting that it had received a proposal resulting from the First International Consultation on Incontinence, held in 1998 and co-sponsored by the World Health Organization, that the term "overactive bladder" be added to the ICD-10 code list and to the alphabetical index. The International Continence Society had suggested that this could be included at category N39 "Other disorders of urinary system".
12. The URC accepted a paper on the Evaluation of the Update Process (WHO/GPE/ICD/C/99.25) by the North American Centre, including objectives as outlined. The URC agreed that responsibility for the evaluation process is still to be determined.

Electronic Tools Committee

Chair: Michael Schopen

Rapporteur: Cleo Rooney

Dr Schopen welcomed participants to the first meeting of the newly constituted committee on electronic tools for international health- related classifications and kindly agreed to chair the committee.

It was decided that membership should be open to any individuals from collaborating organizations that wished to participate actively in the work and aims of the committee. They should submit their names to the Chair, and copy to the secretariat.

The committee agreed draft Terms of Reference, methods of working and communicating and a work plan, including the identification of some priorities for the coming year. The committee also drew up a first list of electronic tools, and classified these into eight groups.

Terms of reference

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

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

The committee agreed that they would begin their work communicating by e-mail, but would explore more efficient methods of electronic communication, in particular, the possibility of setting up a news server. This would reduce the administrative burden on the Chair but would require participants to contact the news server actively at regular

intervals. In future, a shared Internet workspace or the use of net meeting software may be possible. The latter allows real time e-mail conferencing. Though this is slower than phone conferencing, it may have advantages for non-native English speakers and provides an automatic electronic record of the conference.

The first priority for the group was to compile a list of existing tools, including information about their availability and dissemination. The meeting listed and classified all those known to participants [listed below] and agreed to survey collaborating centres following the Heads of Centres meeting to compile a more definitive list.

A Framework for ICD-Related Electronic Tools

Electronic Versions of ICD-10

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

Automated Cause Coding Systems (Mortality)

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

Other Applications

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

Electronic Training Tools

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

Data Capture Tools

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

Analytic Tools

- Geographical Information Systems
- Statistical Data Dissemination Systems

Dissemination and Communication Tools

- Web-Sites
- Majordomos
- Literature on the ICD

Other Tools

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

Mortality Reference Group

Chair: Harry Rosenberg
Rapporteur Susan Cole

Dr Rosenberg explained the role of the MRG, its terms of reference, method of working and the work it had carried out so far. These are outlined in the annual report of the MRG to the Heads of Centres, document WHO/GPE/ICD/C/99.24.

The meeting noted that two problems had been resolved by the MRG, and agreed the recommendations in that document, with minor amplification/clarification

- i. The underlying cause of maternal deaths should be coded to chapter XV, using the index. It was suggested that 'using the index' was ambiguous. It should be augmented to show that it is necessary to look under 'pregnancy complicated by...'. This will identify a code for the underlying cause in the pregnancy chapter. Countries doing multiple cause of death coding may wish to use codes from outside this chapter to provide more detail on the diseases or complications involved. [Note for future consideration, the impact of doing so in automated coding systems needs to be evaluated]. In incidental maternal deaths, e.g. motor vehicle collisions, the fact of the pregnant state may be identified by the use of a code from this chapter in multiple cause coding.
- ii. Rule A – senility and ill defined conditions. Those present applauded the addition of certain conditions coded to disease chapters to the list considered to be ill-defined for application of modification rule A.

The meeting also noted that work was continuing to resolve three further issues:

- iii. Coding of perinatal conditions
- iv. Accidents caused by diseases
- v. Rule 3

There was general discussion of the rule 3 problem.

A paper resulting from a WHO Inter-regional Consultation on Maternal Mortality suggesting changes in definitions relating to maternal mortality was tabled and discussed (Background Paper 08). The meeting asked the secretariat to go back to the programme

concerned for clarification of the issues and to bring back a suggested solution to the MRG.

A new list of problems for consideration by the MRG was tabled. These will be discussed at the next meeting, when members have had time to consider and consult.

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List of Documents

WHO/GPE/ICD/C/99.1	Draft Agenda
WHO/GPE/ICD/C/99.2	List of Participants
WHO/GPE/ICD/C/99.3	List of Documents
WHO/GPE/ICD/C/99.4	Annual Report of WHO Classification-Related Activities (not yet available)
WHO/GPE/ICD/C/99.5	Annual Report from the WHO Collaborating Centre for the Classification of Diseases in the Nordic Countries
WHO/GPE/ICD/C/99.6	Annual Report of the Activities of the WHO Collaborating Centre for the Classification of Diseases, Beijing, 1998
WHO/GPE/ICD/C/99.7	Annual Report of the WHO Collaborating Centre for the Classification of Diseases in Portuguese, Brazil, 1999
WHO/GPE/ICD/C/99.8	Annual Report on the classification activities of the Department for Public Health Forecasting, National Institute of Public Health and the Environment, the Netherlands
WHO/GPE/ICD/C/99.9	Annual Report of the Activities of the WHO Collaborating Centre for the Classification of Diseases for the Western Pacific (not received)
WHO/GPE/ICD/C/99.10	Annual Report of the Activities of the WHO Collaborating Centre for the Classification of Diseases in the UK, 1999
WHO/GPE/ICD/C/99.11	Annual Report of the Activities of the WHO Collaborating Centre for the Classification of Diseases in French, Paris
WHO/GPE/ICD/C/99.12	Annual Report of the Activities of the WHO Collaborating Centre for the Classification of Diseases in Arabic, Kuwait (not received)
WHO/GPE/ICD/C/99.13	Annual Report of the Activities of the WHO Collaborating Centre for the Classification of Diseases, Moscow (not received)
WHO/GPE/ICD/C/99.14	Annual Report of the WHO Collaborating Center for the Classification of Diseases for North America
WHO/GPE/ICD/C/99.15	Annual Report of the Activities of the WHO Collaborating Centre for the Classification of Diseases, CEVECE, Caracas (not received)

WHO/GPE/ICD/C/99.16	Annual Report of the Activity of Office of the ICD, Japan
WHO/GPE/ICD/C/99.17	Annual Report of the Classification-Related Activities of the German Institute for Medical Documentation and Information 1999
WHO/GPE/ICD/C/99.18	Changes in the Frequency of Deaths Due to Infectious and Parasitic Diseases (Chapter I) with the Introduction of ICD-10, Laurenti & Grassi
WHO/GPE/ICD/C/99.19	Use of ICD-10 and ICD-0-2 in Cancer Registry in the City of São Paulo/Brazil, Results of 1993, Mirra, Buchalla & Laurenti
WHO/GPE/ICD/C/99.20	The Use of ICD-10 for Coding: the Nature of the Lesion and the External Causes in Morbidity, Mello Jorge & Laurenti
WHO/GPE/ICD/C/99.21	The Codification of AIDS Deaths According to ICD-10, Buchalla, Laurenti, Drumond & Lira
WHO/GPE/ICD/C/99.22	The Use of ICD-10 to Describe Morbidity in Public Hospitals in Brazil, Laurenti, Caratin & Buchalla
WHO/GPE/ICD/C/99.23	PesqCID - A New Software for ICD-10 Use, Buchalla, Laurenti & Bandarra, Pinheiro & Levin
WHO/GPE/ICD/C/99.24	Annual Report of the Mortality Reference Group, 1999, Rosenberg, Johansson & Hoyert
WHO/GPE/ICD/C/99.25	Approaches for Evaluating the Updating Process for ICD-10, Marjorie Greenberg
WHO/GPE/ICD/C/99.26	The Effect of Condition Sequencing Order on Cause-of-Death Statistics, Smith, Weed & Mingay
WHO/GPE/ICD/C/99.27	International Collaborative Effort (ICE) on Automating Mortality Statistics: A Progress Report, Rosenberg, Peters & Kochanek
WHO/GPE/ICD/C/99.28	Implementing a New Population Standard for Age Adjusting Death Rates in the United States, Rosenberg & Anderson
WHO/GPE/ICD/C/99.29	Training for Implementing ICD-10 for Mortality in the United States, Trotter, Bius, Hoyert, Pitts, Raynor & Rosenberg
WHO/GPE/ICD/C/99.30	Update on ICIDH-2 Revision Activities in North America, Placek, Miller & Ogilvie

WHO/GPE/ICD/C/99.31	Report of the International Collaborative Effort (ICE) on Injury Statistics, L Fingerhut
WHO/GPE/ICD/C/99.32	Refined Crosswalks for ICD-9 and ICD-10, Zaiss, Schopen, Schulz & Klar
WHO/GPE/ICD/C/99.33	Electronic Publishing of the Alphabetical Index to ICD-10, Michael Schopen
WHO/GPE/ICD/C/99.34	ICD-10-SGBV A Special Adaptation for the Outpatient Sector of the German Health Care System, Michael Schopen
WHO/GPE/ICD/C/99.35	ICD-10 AM Education in Australia, Peasley & Roberts
WHO/GPE/ICD/C/99.36	The Semantic Analysis of Description Against Recorded Codes, Stevanovic & Lewis
WHO/GPE/ICD/C/99.37	Proposal for Morbidity Clearing House, Roberts, Innes & Madden
WHO/GPE/ICD/C/99.38	An Iatrogenic Injury Classification, Runciman, Roberts & Madden
WHO/GPE/ICD/C/99.39	Development of a Database for ICD-10-AM, Hooper, Innes & Roberts
WHO/GPE/ICD/C/99.40	Key Health Classifications used in Australia: A Family or Unrelated Household Members, Richard Madden
WHO/GPE/ICD/C/99.41	Coding Education in the South East Asia and Western Pacific Regions of WHO, Sue Walker
WHO/GPE/ICD/C/99.42	Coding of Postprocedural Complications in ICD-10-AM, Innes, Rust & Roberts
WHO/GPE/ICD/C/99.43	Development and Implementation of ICD-10-AM, Innes & Roberts
WHO/GPE/ICD/C/99.44	An Australian Experience in Implementing Automated Coding (in ICD-9 and ICD-10), Malcolm Greig
WHO/GPE/ICD/C/99.45	ICD-10 Update Reference Committee, Roberts & L'Hours
WHO/GPE/ICD/C/99.46	Injury Classification: Balancing Continuity and Utility (ICECI and its Compatibility with ICD-10) James Harrison
WHO/GPE/ICD/C/99.47	The Relationship between Chapter XX or ICD-10 and Multiaxial Classifications of External Causes of Injuries, Smedby & Frimodt-Møller

WHO/GPE/ICD/C/99.48	Issues to be discussed in the Construction of Sentinel Operation Lists, Gunnar Schioler
WHO/GPE/ICD/C/99.49	Clarification of ICD-10 Mortality Coding Rules and Guidelines: Updated Problem List, Lars Age Johansson
WHO/GPE/ICD/C/99.50	Record Linkage - a Method for Detecting Quality Problems in Mortality Statistics? A Comparison of Swedish Hospital Discharge Records and Death Certificates, Johansson & Westerling
WHO/GPE/ICD/C/99.51	Experiences of an Electronic Newsgroup, the Mortality Forum, in Classification of Causes of Death, Lars Age Johansson
WHO/GPE/ICD/C/99.52	Selection of the Underlying Cause Using ICD-10: Comparison between France, Sweden and United States Based on a 6922 Death Certificate Sample, Johansson, Pavillon, Boileau & Trotter
WHO/GPE/ICD/C/99.53	The French Automated Coding System Styx, Gérard Pavillon
WHO/GPE/ICD/C/99.54	Report on Changes in Vital Statistics of Japan from 1995 to 1997; Effects from Implementation of ICD-10 and Revision of Form of Death Certificate
WHO/GPE/ICD/C/99.55	WHO/WHO Collaborating Centres for the Classification of Diseases Joint Work Plan 1999-2003 Discussion Paper, Elizabeth Taylor

Background papers

Agenda for meeting with Centre Heads, Sunday 17 October 1999, (*cardiffsundayagenda.doc*)

WHO/WHO Collaborating Centres for the Classification of Diseases Joint Work Plan, 1999-2003, Second Draft, August 1999 (*draftworkplan2.doc*)

International Classification of External Causes of Injuries, glossary (*ICECIglossary.doc*)

International Classification of External Causes of Injuries, data dictionary (*ICECIadatadictionary.doc*)

Field trial version of the draft Third Edition of the International Classification of Diseases for Oncology (ICD-O-3), cover page (*icd-o-3coverpage.ppt*)

Field trial version of the draft Third Edition of the International Classification of Diseases for Oncology (ICD-O-3), grading codes (*icd-o-3grading.doc*)

Field trial version of the draft Third Edition of the International Classification of Diseases for Oncology (ICD-O-3), morphology (*icd-o-3morphology.doc*)

PowerPoint annex to document WHO/GPE/ICD/C/99.23 (*Cardiff99.23annex.ppt*)

Recommended Changes to ICD-10 Definitions Related to Maternal Mortality, by a WHO Inter-regional Consultation (AFRO, SEARO, WPRO) on Maternal Mortality (*maternalmortality.doc*)