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**STATISTICAL COMMISSION and  
ECONOMIC COMMISSION FOR EUROPE**

**WORLD HEALTH ORGANISATION  
REGIONAL OFFICE FOR EUROPE**

**CONFERENCE OF EUROPEAN STATISTICIANS**

Joint ECE-WHO Meeting on Health Statistics  
(Rome, 14-16 October 1998)

**REPORT**

**I. INTRODUCTION**

1. The Joint ECE-WHO, Regional Office for Europe Meeting on Health Statistics was held in Rome from 14-16 October 1998, at the invitation of the Government of Italy, in co-operation with the National Statistical Institute (ISTAT) and the Italian Ministry of Health. It was attended by participants from Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Ireland, Israel, Italy, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, The former Yugoslav Republic of Macedonia, Turkmenistan, Ukraine, United Kingdom, United States and Uzbekistan.

2. The European Commission was represented by Eurostat and the Directorate General V, Employment, Industrial Relations and Social Affairs.

3. Representatives of Australia attended under Article 11 of the UN/ECE Terms of Reference.

4. Representatives of United Nations Fund for Population Activities (UNFPA), United Nations Department of Economic and Social Information and Policy Analysis (UN Statistics Division) and the following specialised agencies and intergovernmental organisations were also present: WHO - headquarters, WHO - American Regional Office, WHO-Information Centre for  
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Central Asian Republics, the World Bank, Organisation for Economic Cooperation and Development (OECD) and the Council of Europe.

5. Mr. Paolo Garonna, Director General of the Italian National Statistical Institute (ISTAT), chaired the meeting.

## II. ORGANIZATION AND DOCUMENTATION

### Agenda and procedure

6. The Provisional agenda (CES/AC.36/1998/2/Add.1) was adopted.
7. The programme of the Meeting covered the following substantive topics:
- (i) Problems associated with the lack of coordination in national and international health statistics ;
  - (ii) The role of IT in collecting health information and providing ready access to statistics and indicators on health status;
  - (iii) Development and use of health output indicators ;
  - (iv) Progress towards implementation of ICD-10 and other internationally comparable health classification systems.
8. Each topic had a session dedicated to it. An organiser was appointed for each session to be responsible for planning and inviting discussion papers, a discussant and a rapporteur. On the last day a Panel with all the discussants animated further discussion and drew conclusions from the debate of the four topics.

### Documentation

9. All the papers, including the report, are available at the following Website address:

[www.unece.org/stats/documents/1988.10.health.htm](http://www.unece.org/stats/documents/1988.10.health.htm)

Only the invited papers were translated into the three working languages, English, French and Russian, for supporting papers only the summary was translated. A summary of the discussion and the main conclusions drawn from each session is included in Annex to this report.

### Opening statements

10. The opening addresses were delivered by the Director General, Mr. Paolo Garonna, WHO Regional Director for Europe, Dr. J.E. Asvall and Prof. Silano, Head of International Relations of the Italian Ministry of Health.

11. The three speakers emphasised the role of health statistics and information to support health policy formulation and evaluation and to enable countries to move towards evidence-based, outcome oriented health care. The importance of integrating health services statistics with statistical information on other factors influencing health such as social conditions, lifestyle, education and environment was also underlined. Health policies are increasingly becoming intersectoral and focus on social inequality. The coordination of sources and collections of health statistics was seen as a major challenge for both countries and international agencies, particularly since there is no formal framework to ensure this at the international level. Most recently, the member states of the WHO European region have recognised that health is a basic human right and policy must be based on values and principles such as equity, solidarity, participation and accountability to achieve progress towards the accepted goal of health for all. The growing need to measure health status of populations combined with the rising costs of health care due to ageing and new medical technologies, is increasing the demand for comparative health statistics. As resources for health statistics are not growing commensurately, good collaboration between all parties involved in this process - physicians, health administration, insurers, statisticians, etc. - is crucial.

### III. FUTURE WORK

12. At the beginning of the meeting, the Chairman asked the participants to hand in to the secretariat their written proposals for topics for future meetings. An Advisory Group of representatives from Canada, the Czech Republic, France, Italy, Norway and the Russian Federation, discussed the submitted proposals and prepared a shortlist of four topics. The meeting discussed the proposal and recommended that the following text be inserted into the programme of work of the Conference of European Statisticians:

#### 4.6 HEALTH STATISTICS

##### Activities and means

##### Activities of the UN/ECE

13. Meeting on health statistics (jointly with WHO headquarters) in 2001/2002 to consider:

- (i) Use of health information in health policy, management and delivery. Are health information systems being used properly to serve

the needs of health and social policy? ( e.g. use of linked data sets or vital registration for large scale epidemiological studies; the adequacy of current data sets to monitor health outcomes; longitudinal data needs to facilitate health and social care for the elderly and issues related to data dissemination);

(ii) Conceptual and statistical issues in health status measurement (e.g. clarification of concepts around defining, valuing and measuring health status, morbidity and related quality of life; progress towards international standardisation including further development and application of ICIDH; quantification of health related quality of life in countries; adaptation of current statistical systems and data collection procedures to accelerate the above);

(iii) Integration of key national health and health related statistics into coordinated and easy accessible databases (legal and administrative issues of data linkage from different sources; users and uses of national integrated data sets);

(iv) International and national harmonisation of definitions and reporting on health statistics (progress in coordination of national and international data collections, sharing of data between international organisations, linkages between international and national data sets).

14. The meeting strongly recommended that the Conference further encourage International organizations involved in health statistics to increase their cooperation and coordination in those areas of health data collections and research which are not yet adequately coordinated. It also asked the Conference to encourage countries to intensify coordination and data comparability between different health sectors and data producers ministries, statistical agencies, research institutes, etc.).

15. The meeting further recommended that the Conference give a higher priority to the area of health statistics, and that its work programme focuses more on the conceptual issues of measurement, classifications, standardisation and harmonisation of data.

16. In view of the fact that the next meeting was only planned for 2001/2002, the participants urged the Conference to convene a preparatory meeting in 1999/2000 involving the participation of a small number of interested countries. The preparatory meeting would discuss and prepare some of the above issues for the next meeting.

**IV. OTHER BUSINESS**

17. Several international organisations working in the field of health reported to the meeting on work they were currently doing or planning to undertake in areas covered by the concerns of this meeting.

**V. ADOPTION OF THE REPORT AND CLOSING OF THE MEETING**

18. The report was adopted by the meeting on 16 October 1998.

19. The meeting thanked the Italian Government and ISTAT for their support and hospitality and for having organised a most successful meeting.

20. The meeting was closed by the Chairman Paulo Garonna.

**ANNEX**

Summary of discussion and main conclusions

A. Session 1 - Problems associated with the lack of coordination in national and international health statistics

Documentation: Invited papers by WHO (CES/AC.36/1998/4-7) and Italy (43). Supporting papers by Albania (38), Armenia (45), Australia (40), Azerbaijan (41); Belgium (23), Czech Republic (27 and 28), Estonia, Latvia and Lithuania (21), France (24), Georgia (20), Kazakhstan (42), Kyrgyzstan (37), Netherlands (22) and Slovenia (18).

21. Mr. Arun Nanda acted as session organiser, Mr. Hubert Isnard as discussant and Mr. J. Halsall as rapporteur.

22. The five invited papers for the session were presented to the meeting by their authors while the fifteen supporting papers were summarised by the discussant. The supporting papers had several common themes. One being the reorganisation of health services and their funding, which especially in the NIS and the Countries of Central and Eastern Europe, has meant that health statistics have had to adapt to these changes. In some countries, the health statistics reporting structures have been destroyed in the belief that they could not meet the needs of decision makers and other users of the data and then subsequently had to be re-constructed. The reorganisation has taken different forms in different countries. In some, it has been the primary health care that has been the focus of the modernisation of information flows and cooperation between state bodies, including sickness funds.

23. Another common theme was regional cooperation, for example by the Baltic States, the Central Asian Republics, the federal states in Australia and among six western European countries to improve international comparability of health care data. Everywhere these initiatives had strengthened national information systems and harmonised data. In Australia, the health information coordination instrument is a data dictionary (available on a Website) containing nationally and internationally agreed definitions and terms used in health statistics

24. It was clear from the discussion which followed that coordination was seen to be important and necessary by both member states and international organisations. Coordination is needed at several levels: between international agencies; between international agencies and member states; and also within countries between national agencies. It was suggested that the latter issue should be discussed and addressed domestically in each country.

25. Several participants also called attention to the need for harmonisation of data and definitions collected by international agencies and gave examples of inconsistencies between the definitions used in different international databases. It was also stated that while WHO's Health for All database is free, the OECD database costs a month's salary in some countries; making it free could lead to wider use of it.

26. Participants observed that joint international work on conceptual frameworks, definitions and classifications, for example on ICD, had led to better results than in other areas where little or no international work had been done. A strong plea was made for more efforts and resources to be devoted in the international organisations to conceptual development work such as classifications and standards rather than to data collections. A member state noted that some international organisations had attempted to collect data that were not even collected nationally. Further, some agencies had not learned lessons previously learned by other international organisations.

27. Both member states and international agencies called for some work division about who should work on which topics to avoid duplicative efforts. There was agreement that some topics need a lot of work, for example health status measurement and health care services, while other topics are already well developed and need correspondingly less work, for example ICD. Work should be concentrated in those areas needing development, and not in mature areas, and a very good example was the development work done for the OECD health accounts. In this way duplicated effort could be avoided, as could problems caused by different definitions giving rise to different values for apparently similar indicators. Such contradictory data, even though they may not be numerous, can result in loss of confidence in all types of international data and comparisons.

28. It was also proposed that other international agencies should be asked for advice and help with creating conceptual frameworks, and data gathering instruments, for example, the International Epidemiological Association, and the European Public Health Association.

29. On the routine collection of data, the two models described in paper 7 were discussed (the functional model and the distributed model). A representative of Eurostat presented to the meeting an alternative framework for statistical processes consisting of three parts: i) preparation of data collection, including work on frameworks for statistical systems, standards, instruments, definitions and classifications, and it was proposed that the

most appropriate international organisation could take the lead; ii) data collection, including the preparation of questionnaires, dummy tables, and the organisation of data transmission. For this it was proposed that international organisations could collaborate by using joint questionnaires and that territorial divisions may be appropriate ; iii) analyses and dissemination, for which it was proposed that every international organisation must be free to act according to its mandate.

30. Concern was expressed about the proposed EC territorial model of routine data collection. One problem with the territorial model was that if all data would have to be diverted via a single international agency; would this not mean that one agency had a monopoly in distributing data? A distributed model, by contrast, has the advantage of supporting data exchange, and not only data collection. The data exchange element being the "added value" that the international agencies provide for Member States. It was also noted that a single master dataset based on the concept of a national integrated health database (as proposed in papers 4 and 5) solves the problem of authenticity. The single master dataset can be an integral part of the national health information system and will raise domestic acceptance of international databases.

31. There was considerable discussion about whether the National Integrated Health Databases might contain aggregated data or patient data, or both. Issues of confidentiality and protection and different legal situations in countries require there being a pragmatic and country-specific approach.

32. It was also noted that training was needed to help people to make full use of health statistics. Close working between national and international bodies is needed to make sure that the data will be relevant and useful for practical purposes. Several speakers also saw a need to improve data quality. The meeting also stressed the need to inform physicians about the use made of the data they provide. Often data providers are not fully aware of the uses made of the data they supply, for example on death certificates. WHO-EURO mentioned successful work done with dentists along these lines, and more recent initiatives on Gynaecology, Obstetrics, and Neonatal medicine, which was described in greater detail during session three in paper 16.

33. Several participants expressed their gratitude to Monsieur Jean-Paul Poulrier for all the valuable work he had done at the OECD before his recent retirement.

34. WHO-EURO distributed two conference room papers (CRP2 and CRP3). Participants were invited to send comments on suggested "Health for All" indicators listed in CRP2 which had been formulated after consultation with an expert group, some of whose members were at this meeting. Further

consultation in writing would take place formally with member states between November 1998 and February 1999.

B. Session 2 - The role of IT in collecting health information and providing ready access to statistics and indicators on health status

Documentation: Invited papers by Denmark (CES/AC.36/1998/12), Germany (14), Finland (15). Supporting papers Croatia (39), Czech Republic (32), Sweden (33), Switzerland (25) and WHO (26).

35. Mr. Poul Erik Hansen acted as session organiser, Mr. Gunther Bruckner as discussant and Mr. Martin Lund as rapporteur.

36. The session was organised as a series presentations with IT demonstrations of different countries health information systems. Three invited papers from Germany, Finland and Denmark formed the core of the session, followed by four supporting papers and a brief discussion.

37. In his introduction, the session organiser told the meeting that the present overall picture of European health information has developed gradually. Various organisations have contributed to the development on the basis of their own specific policies. The development has been brought forward by many different agendas but the various initiatives have not been coordinated in any major sense. Consequently, countries often have to report data to a number of institutions which results in unnecessary workloads, duplication of effort and unnecessary competition between international agencies in the health field. As a result the quality of the data and information distributed by the international agencies was not always the best and generally limited. He concluded that recent initiatives (EUPHIN EAST and IDA HIEMS) as well as the EU Health Monitoring Programme have shown that some of these shortcomings can be solved partly by means of IT and telecommunication in a network of distributed databases. Both systems being developed are based on electronic networks for the exchange of data and to some extent on distributed databases. They are also prepared for future linkage or integration and encompass all major international agencies engaged in data collection. Within the framework of the health monitoring programme, initiatives have been launched on data comparability and data quality.

38. The presenter of the German paper reminded the meeting that due to their federal structure, the German federal health information system is in many ways a micro cosmos of the situation in Europe. The system is based on information from the Länder contained in a central database which cover 7 major areas: framework conditions of the health care system; health status;

behavioural and risk aspects of health; diseases; resources of the health care sector; production and consumption of health care services; expenditure and financing of health care services. An Internet version of the system will be made available to the public by 1 December 1998. It includes facilities for online data processing and down loading as well as documentation and background material.

39. The Finnish system for presentation and distribution of health statistics has been established as an Internet solution based mainly on encrypted individual data. However the databases - Net- Hilmo and the Sotka database - contain aggregated data only. Both databases have two levels of access: one for professionals and one for the general public. The Net- Hilmo gives an overview of Finnish health care by giving information on year, medical speciality, region of the patient, hospital district, diagnosis, operations, age groups, sex and mode of admission. The Sotka is a statistical database that only in the future will become accessible to the public. It is their intention to store the data for international agencies on the Net- Hilmo server as well.

40. The two Danish presenters told the meeting about the particularities of their health information system which is based on individual data. The linking of all the information is possible because of a civil registration number unique to the individual. Every contact with the health care system is registered - hospitals, general practitioners as well as the buying of prescribed medicine in pharmacies - is stored in a number of national registries as encrypted individual data. The encrypted civil registration number makes it possible to follow an individual through all the health registers and to combine these with other registers on e.g. employment, housing, demography etc. Because of the sensitivity of the data and very strict rules on data confidentiality only a very limited number of persons from the national authorities have access to all the data at the most disaggregated level. Currently, an Internet solution is being developed with a view to giving access to part of the data to the regional health authorities and to the general public. The system is designed with 2 levels of access so that the regional health authorities get access to their "own individual data" and to other data at an aggregated level. The general public gets access to aggregated data only. A number of security measures have been implemented to protect the individual data. The Internet databases are fed with data from the health statistical network directly.

41. The meeting was also informed about the EU Health Monitoring Programme which aims at developing a system of lasting nature based on 3 pillars:  
i) establishment of common data sets and indicators and work on the improvement of data comparability and quality; ii) establishment of a

network for sharing health data; and iii) health analysis. IDA (EUPHIN) HIEMS will become the implementation of one of the pillars and will eventually act as the vehicle for health data exchange in the EU. The system will become operational in a test version mid-1999 and will be tested with the use of real aggregated raw data with a view to the further expansion and development of the system. While noting that good progress had been made on telematic IDA, important aspects of the basic concept were still open for discussion and some member states were dissatisfied with a centralised model. The trend towards decentralised systems led the speaker to believe that the EC Health Monitoring System will also develop in that direction. The speaker from EU concluded by stressing that within the Health Monitoring Programme great importance should be given to the issues of data comparability and data quality. A good telematic infrastructure as well as use of the data will help to improve the quality but the key to success is a vision of what the system should be used for, then the infrastructure will come more or less by itself.

42. The EUPHIN East system, developed by WHO-EURO, with financial assistance from the European Commission, was also briefly presented. The system is aimed at making more use of existing data rather than collecting more data and is intended to lead to improvements in both quality and comparability. Therefore, the system is basically being developed as a network of distributed databases which will link national integrated health databases in the 23 countries of the Euphin-east project, and two countries in the EU-IDA (HIEMS) project. These two projects have a similar design, contain similar data (initially covering mortality and the HFA indicators), have cross membership, and aim to interconnect. The system is currently running in 6 countries.

43. The discussant summarised the session by pointing out that there are basically two groups of countries: those which have a fairly liberal attitude to the use of individual data and those who have various degrees of restrictions in this area. He argued that the important issue at the European level today is to make use of and to improve the data available rather than to use a lot of resources on deciding how best to enter the future. From what had been shown and said at the session he drew the following conclusions : i) Internet technology is the basis for data exchange; ii) it is necessary to agree on common data sets rather than on indicators. This makes it possible to calculate the indicators needed today as well as the indicators needed in the future; iii) national databases should form the basis for the international exchange of data. To this end, a section of the national databases should be reserved for minimum international data sets and indicators calculated on the basis of commonly agreed calculation rules; iv) the information exchanged must be subject to national as well as EU

regulation on confidentiality ; v) the demonstration of the two European systems for data exchange illustrate that the concept of distributed databases is the solution of the future for European data exchange as it both serves the needs of the international organisations and the

C. Session 3 - (iii) Development and use of health output indicators

Documentation: Invited papers by Canada (CES/AC.36/1998/29), Finland (8), Netherlands (9), Norway(10) and WHO (16). Supporting papers by Latvia (30) and Switzerland (31).

44. Mr. Erik Nord acted as session organiser, Mr. Alan Lopez as discussant and Ms. Ann Lisbet Brathaug as rapporteur.

45. The following types of health output indicators and their potential were discussed in the session : i) composite measures of health status of morbidity and mortality; ii) observed data summarising morbidity and mortality; iii) self-reported descriptions of disability or health, through multidimensional profiles conveying information at the individual level about health status; and iv) valuation of disease states, disability or health-related quality of life, that are a single value reflecting either individual utility, or social preferences for disease states, disability or health-related quality of life.

46. A fair amount of the discussion focussed on the distinction between valuation and description of health status. There are two main ways of describing individuals' health in numerical terms. One is in terms of scores on a number of different dimensions of health, like mobility, pain, hearing and seeing. Together such unidimensional scores form multidimensional health profiles. The other way used is to assign a score for overall health on a single scale from zero to unity. Such a single index score, referred to as a health status value, can be interpreted as a measure of health related quality of life.

47. The discussant stressed the need for composite measures, such as HALE (health-adjusted life expectancy), DALE (disability-adjusted life expectancy), QALYs (quality-adjusted life-years), and DALYs (disability-adjusted life-years). Summary statistics of a population's health, based only on mortality, fail to capture major non-fatal changes in health status, both across populations and within populations over time. The composite measures also facilitate the direct comparison of quantity or time versus quality, e.g. "Years of Life Lost" due to mortality (YLL) versus "Years of Life Lost due to Disability" (YLD). It was underlined that this is particularly appropriate for chronic conditions such as arthritis that do not

necessarily contribute to high mortality. It was clear from the discussion, that countries are moving towards these types of health output indicators, since they are more relevant for health policy, for appropriate planning and decision making, in addition to more routine monitoring of the population's health status by traditional measures.

48. The meeting welcomed the initiative from the WHO Regional Office for Europe on specific indicators to monitor the quality of care which reinforces the importance of monitoring the outcome of health services in a country. Like quantification of non-fatal health outcomes, the development of other indicators to measure the performance of health care services becomes paramount as the potential for mortality statistics in Europe progressively becomes less capable of reflecting differences in performance of health care services.

49. Given the increasing use of QALYs and DALYs to measure health status, the discussant called attention to the difference between these, noting that one measures 'positive' health ( QALYs), and the other 'negative' health (DALYs). Similarly, it is important to note how each approach, although a composite indicator, includes different components, norms and valuations. Moving from QALYs to DALYs as each is currently calculated, represents an evolution from individual perspectives ( QALYs) that are not deliberated on, to a social perspective on valuation of health states ( DALYs).

50. Furthermore, it was underline d that collecting cross-national data that adequately reflect both the quantity and quality of life and that facilitate international comparisons for use in health policy, prioritisation , planning and research, requires that conceptual issues concerning health status are addressed, utility or preferences defined, methodological standards set, and norms debated and agreed upon. As there for the time being is no agreement on a health descriptive system for defining health states as well as on what techniques should be used for eliciting valuations, several participants expressed the need for some international leadership in the field. The Dutch participant informed the meeting about the BIOMED project which started this year with partners from seven European countries (see CES/AC.36/1998/9) and which will provide useful information on the consistency of health state valuations in the participating countries by establishing a comparative list of disability weights.

51. The discussant drew attention to the fo llowing concerns : i) what is the best method to describe health states or elicit social valuation of these; ii) how to examine the validity of the components that make up composite indicators; and iii) how to interpret the results of a composite indicator. These concerns are beyond the data quality of morbidity and

mortality estimates, and need to be carefully reflected upon by anyone using composite indicators. Several participants underlined the ethical and moral issues in valuation, and warned against using the composite indicators uncritically. It was emphasised that when comparing figures and presenting them, particularly for politicians, one had to be cautious and carefully explain the underlying differences and constraints.

52. The inherent merits and problems of two commonly used techniques for eliciting health state values, personal trade-off (PTO) and time trade-off (TTO), were discussed at some length. Concern was expressed whether the respondents used in the surveys of personal trade-off (PTO) and time trade-off (TTO) were the most appropriate. In valuation exercises should the respondents be experts or not, should they have personal experience with illness or not and what about children in such a system? Are the results influenced by the type of respondents?

53. Other concerns expressed were related to whether or not DALYs are meaningful, taking into consideration the lack of basic statistics in many countries. Is it possible to use estimates developed by experts, but which may not reflect values of people in health states? The conclusion from this discussion was that more data are actually available in countries than is commonly thought. In principle, therefore, an informed estimate is better than no estimate, provided that one is very clear about the limitations of the estimation process.

54. Regarding the need for an overall aggregate index of population health, and whether an international agency should provide leadership in this area and promote an informed consensus building process, the discussant called attention to the fact that this is already among the priorities of the new Global Program on Evidence for Health Policy (WHO). Among the goals of this newly established program are encouraging debate on ethical considerations and implications; assessing and clarifying the conceptual basis, leading to a standardisation of protocols; promoting common methods to describe health states; developing protocols that allow for cross-national comparisons of health states measures; and improving understanding about, and interpretation of composite measures of health state descriptions, as well as of social valuation.

D. Session IV - Progress towards implementation of ICD-10 and other internationally comparable health classification systems

Documentation : Invited papers by Sweden (CES/AC.36/1998/13) and United

Kingdom (11 and 17). Supporting papers by Australia (35), Spain (36), Switzerland (34) and United States (44).

55. Ms. Karen Dunnell acted as session organiser and discussant, Mr. Howard Meltzer was appointed rapporteur.

56. The underlying theme of the discussion of the International Classification of Diseases (ICD) was the management of change, either from ICD-8 or ICD-9 to ICD-10, or from a non-ICD to an ICD classification system or from the International Classification of Impairments, Disabilities and Handicaps (ICIDH) to ICIDH-2.

57. More specifically, the issue of automatic coding was discussed at some length as more and more countries are adopting this procedure for coding death certificates. Unfortunately, the new version of the MICAR software (developed by the National Centre for Health Statistics in United States) which automatically assigns codes according to ICD-10 has been delayed and several countries reported that as a result they had had to postpone implementing the change to ICD-10. Although it was appreciated that vast amount of resources were required to make the software available in different languages and compatible with a variety of computing systems, it was most unfortunate that the new software version could not have been prepared and introduced simultaneously with the ICD-10.

58. Regarding future updates of ICD-10, two key questions discussed were when and how to implement these updates. The meeting was told by the WHO representative that a distinction should be made between the continuous revision (agreed upon at the October 1997 meeting of Collaborating Centres) and more formal updates. The continuous revision should be limited to correction of errors while more formal updates and substantial changes should be introduced only every three years or so to avoid loss of comparability.

59. Several countries were dissatisfied with the limited training and support offered by WHO to help countries implement the ICD-10. The discussion revealed that there was a demand for more education and training of staff, for training materials, including computer software, in different language versions as well as for support throughout the updating process. In particular, it was felt that WHO had to improve its communication with member countries so that countries would be informed about availability of manuals and publication schedules for different language versions as well as where to address questions for clarification.

60. Regarding the other health-related classifications in the ICD family, which are useful to the development of coherent health information systems at

the national, regional and international levels, there was concern that these were not receiving sufficient attention. It was therefore considered essential that more resources be put into the current revision of the ICIDH to ensure timely completion. Furthermore, assessment instruments are in the process of being developed which translate the concepts of the classification into operational questions and which can be used for various purposes in a variety of settings. Several participants saw the ICIDH as the most appropriate conceptual framework to improve and standardise measurement of non-fatal health outcomes across regions and countries.

61. The problem of coding discrepancies among countries was also discussed and it was agreed that coding instructions need to be tailored to reflect who was using the classification: clinicians or statisticians. Examples shown by the WHO representative illustrated that countries use ill-defined ICD codes very often to code cases of Ischemic heart disease. The use of ill-defined codes within countries also depended of the version of ICD used with major implications for comparability. Also great variability was demonstrated in use of ill-defined injury codes leading to miscoding of cases in accidents, suicide or homicide groups. These factors have great impact on the reliability of global public-health assessments. For some users, the ICD seemed imbalanced in terms of the level of detail included for particular areas. Coding cause of death was particularly difficult for those aged 70 and over who may have had several health problems.

62. Concern was expressed that the updating to ICD-10 could cause difficulties in time series analysis. For example, the comparison of data between different countries at different stages of implementation, the knock-on effects on other classifications in the same family, all of which emphasises the need for bridge-coding exercises. An example shown by WHO illustrated the dramatic effect the introduction of ICD-10 had had in Japan on Ischemic heart disease which showed a two-fold increase.

63. It is necessary to strike a balance between rigidity and flexibility and between harmonisation and equivalence in implementing change. The solutions put forward for adjusting to change were for more staff, training and support and for training to be geared to the type of user and to areas known to be problematic. Effective communication was also seen as crucial to foster cooperation, partnerships and collaboration between WHO, Collaborating Centres, Regional Offices, national institutions and expert groups. At the national level, some countries had found it useful to organise e-mail discussion groups.

64. The fact that the responsibility for updating ICD had been in one place (WHO) since 1948 was regarded as positive. Moreover, as explained by the WHO

representative in the new structure of the organisation, support for ICD and ICIDH would be increased, work on classification systems would be more coherent and integrated and communication with member countries on matters relating to these intensified. He therefore thought that despite problems encountered in adjusting to a new classification, there was good reason to be optimistic about the future implementation of the ICD and related classifications as critical tools for promoting health.