

**United Nations Expert Group Meeting on  
International Standards for Civil Registration  
and Vital Statistics Systems  
27 - 30 June 2011, New York**

**Final Report of the Expert Group Meeting<sup>1</sup>**

Prepared by

United Nations Statistics Division

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## I. INTRODUCTION

### A. Background and objective of the meeting

1. The United Nations Expert Group Meeting on International Standards for Civil Registration and Vital Statistics was convened in New York from 27 to 30 June 2011. The meeting was organized by the Demographic and Social Statistics Branch of the United Nations Statistics Division (UNSD).
2. The meeting was held to attain two objectives: a) review the *Principles and Recommendations for a Vital Statistics System, Revision 2* for updates and elaborations and (b) propose an outline for the next revision of the *Principles and Recommendations for a Vital Statistics System*. Note that whenever the publication of *Principles and Recommendations for a Vital Statistics System* is referred in this report, irrespective of its revisions, the term *Principles and Recommendations* is used.
3. The meeting brought together national, regional and international experts working in the area of civil registration and vital statistics. Participants included experts from national statistical offices and civil registrars of 15 countries – Australia, Brazil, Canada, China, Ethiopia, Germany, Ghana, Hungary, India, Jamaica, Mexico, Oman, Thailand, United Kingdom and United States; representatives of the Statistical Office of the European Union (Eurostat) and the African Development Bank (AfDB); representatives from two United Nations specialized agencies – the World Health Organization (WHO) and the Pan American Health Organization (PAHO); representatives from two United Nations Regional Commissions – the Economic Commission for Africa (UNECA) and the Economic and Social Commission for Asia and the Pacific (UNESCAP); as well as one participant from the United Nations Population Division. (See Annex I for the list of participants)

### B. Opening session

4. The expert group meeting opened with a statement by Mr. Paul Cheung, Director of the United Nations Statistics Division (UNSD). The statement was read by Ms. Keiko Osaki-Tomita, Chief of the Demographic and Social Statistics Branch, on behalf of the Director.
5. In his statement, Mr. Cheung first noted under the mandate of UNSD in developing international statistical standards, the original *Principles for a Vital Statistics System: Recommendations for the Improvement and Standardization of Vital Statistics*<sup>2</sup> was published in 1953. Two revisions were followed – *Principles and Recommendations for a Vital Statistics System, Revision 1* (1973)<sup>3</sup> and *Principles and Recommendations for a Vital Statistics System, Revision 2* (2001)<sup>4</sup>. Mr. Cheung then introduced briefly the history of UNSD in developing international standards on vital statistics, pointing out

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<sup>2</sup> United Nations Publication, Sales No. 53.XVI.8, United Nations, New York, 1953.

<sup>3</sup> United Nations Publication, Sales No. E.73.XVII.9, United Nations, New York, 1973.

<sup>4</sup> United Nations Publication, Sales No. E.01.XVII.10, United Nations, New York, 2001.

changes introduced in each revision. He emphasized that the principle of civil registration system being an essential component of a vital statistics system did not change over time and would continue to be reinforced in the next revision.

6. Mr. Cheung also explained the reasons behind another round of the revision of the *Principles and Recommendations*. He brought to the attention of the experts that a concept note was sent by him to countries and agencies soliciting view on the revision and most of the responses expressed their support of the revision. (See Annex II for the Concept Note and Annex III for a summary of responses from national statistical offices and international and regional organizations to the Concept Note)

7. Mr. Cheung asked the experts for a critical review of the current *Principles and Recommendations* for revisions and elaborations. He also called for the experts to review the proposed outline for the *Principles and Recommendations for a Vital Statistics System, Revision 3*, based on their knowledge and experiences in the field of civil registration and vital statistics. (See Annex IV for the proposed outline)

### **C. Organization of the meeting**

8. The meeting was conducted according to the Organization of Work (Annex V). A number of papers were submitted for discussion under each session, generally following the organizations in the proposed outline (see Appendix VI for the list of papers). The presentations are either exclusively related to the revision or in association with national experiences. The discussion for each session was led by reviewers who brought out the main issues and challenges covered in the papers as well as their impact on the revision. The presentations by the reviewers were followed by open discussions and exchanges of national experiences. All the papers contributed by the participants are available on the United Nations Statistics Division (UNSD) website<sup>5</sup>.

9. The meeting was chaired by Ms. Samia Zekaria Gutu (Ethiopia), Mr. Ali Al Raisi (Oman), Mr. Charles Rothwell (United States) and Mr. Jeff Latimer (Canada). The Rapporteur for the meeting was Ms. Valerie Nam from Jamaica.

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<sup>5</sup> Please see: <http://unstats.un.org/unsd/demographic/meetings/egm/CRVS2011>

## II. SUMMARY OF PRESENTATIONS AND DISCUSSIONS

### A. Reviewing international standards on civil registration and vital statistics – overall discussion on the needs for revision and on the proposed table of contents

10. The United Nations Statistics Division (UNSD) presented a paper on the overall revision of the *Principles and Recommendations for a Vital Statistics System, Revision 2*. The paper first summarized changes occurred in the previous two revisions<sup>6</sup> from the original *Principles for a Vital Statistics System: Recommendations for the Improvement and Standardization of Vital Statistics*<sup>7</sup>, published in 1953. To illustrate the development of basic principles from one edition to the next, the presentation outlined the changes introduced on the definition of the vital statistics system since 1953. The 1953 *Principles and Recommendations* incorporated the registration method as an integral part of the vital statistics system, while vital statistics system was defined in the 1973 revision as a process of a) collecting by registration, enumeration or indirect estimation, of information on the frequency of occurrence of certain vital events, as well as characteristics of events themselves and of the person(s) concerned, and (b) compiling, analysing, evaluating, presenting and disseminating these data in statistical form.<sup>8</sup> In the 2001 revision, collecting vital statistics by indirect estimation was taken out of the definition for a vital statistics system.

11. The paper noted that in the revision of the *Principles and Recommendations*, there was a need to distinguish between vital statistics and its data sources. In addition, the revision process should (a) seek to elaborate on the role of population register in providing vital statistics; (b) review the list of core topics to be covered by vital statistics system for relevance; (c) explore the role of health institutions and provide more guidance on how to improve data on causes of death; (d) update definitions and classifications to be consistent with the current versions of international standards and (e) revise the content to reflect the contemporary approaches adopted by countries. The above proposals were supported by national statistical offices and agencies through their responses to the Concept Note that was dispatched earlier this year. The paper also presented the proposed outline for the revision of the *Principles and Recommendations*.

12. The experts noted the timeliness of convening this expert group meeting to review the existing *Principles and Recommendations* and welcomed further distinction between vital statistics and its sources. Experts also supported the approaches that the current revision is taking by focusing on the areas outlined in the paper.

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<sup>6</sup> *Principles and Recommendations for a Vital Statistics System, Revision 1*, United Nations Publication, Sales No. E.73.XVII.9, United Nations, New York, 1973; and *Principles and Recommendations for a Vital Statistics System, Revision, Revision 2*, United Nations Publication, Sales No. E.01.XVII.10, United Nations, New York, 2001.

<sup>7</sup> United Nations Publication, Sales No. 53.XVI.8, United Nations, New York, 1953.

<sup>8</sup> *Principles and Recommendations for a Vital Statistics System, Revision 1*, United Nations Publication, Sales No. E.73.XVII.9, United Nations, New York, 1973, paragraph 37.

13. For the revised *Principles and Recommendations*, it was felt that adding an introduction chapter explaining the rationale behind the current revision might be helpful for the readers. The introduction chapter should also elaborate on the history of developing the *Principles and Recommendations* as outlined in the Dr. Cheung's opening speech as well as in the current paper; address the complexity of the preparatory process; and outline the changes and improvements made in the version.

14. During the discussion, the representative from PAHO shared his experience in working with Latin American countries on civil registration and vital statistics. He noted that the entire process of registering vital events and producing vital statistics was complex and varied greatly among countries. Usually a number of ministers and stakeholders such as the Ministry of Justice, Minister of Health, Minister of Interior and the National Statistical Office are involved in the process and therefore, specific guidelines are needed in the revised *Principle and Recommendations* on the role of different stakeholders.

15. There were also views that since countries were at different levels of development of their vital statistics system, it might be helpful to create country-specific target and strategies for improvement, instead of prescribing one-size-fit-all gold standard such as the *Principles and Recommendations*. However the meeting concluded that the principles within the current revision should be considered as gold standard for all countries to follow.

16. However given the wide variations of national practices in collecting and compiling vital statistics, in-depth country case studies might be helpful to countries along with the broader principles presented in the *Principles and Recommendations*. For instance, flow charts of how countries collect, transfer, compile and disseminate vital statistics might be useful in demonstrating the complexity in operating the civil registration and vital statistics systems and in helping other countries understand the process. National examples could appear in the form of handbooks or accompanying Annexes to the *Principles and Recommendations*. Other national experiences that may be shared with others include the civil status registration of francophone countries; and population registers in countries that function properly and are able to generate vital statistics.

17. Other comments from the experts for the revised *Principles and Recommendations* included providing guidance on how to conduct advocacy campaigns to raise the awareness of the public and government officials. The UNSD representative informed the experts that extensive discussion of advocacy and communication to improve awareness was covered in the *Handbook on Civil Registration and Vital Statistics System: Developing Information, Education and Communication*<sup>9</sup>. These advocacy strategies outlined in this Handbook might be taken into consideration in the preparation of the revision.

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<sup>9</sup> United Nations publication, Sales No. 98.XVII.4, United Nations, New York, 1998.

## B. Definition and uses of vital statistics

18. The first presentation for the session was made by UNSD introducing the proposed chapter on definition and uses of vital statistics. The revised chapter consists of three parts: (a) definition of vital statistics; (b) definitions of vital events for statistical purposes and (c) uses of vital statistics. Comparing to the corresponding chapter in the current *Principles and Recommendations*, the revised chapter provided more comprehensive discussion on different uses of vital statistics. The proposed text presented uses of vital statistics for: (a) population estimates and projections; (b) cohort and period studies; (c) constructing life tables; (d) preparing Millennium Development Goals and other health indicators; (e) epidemiological studies; (f) public health programmes; (g) maternal and child health services; (h) family planning services; (i) social and demographic studies; (j) local and national programmes; and (k) others.

19. The second paper for the session, presented by the United Nations Population Division, was on the use of vital statistics in studying population dynamics, particularly in analytical studies of fertility and mortality. The presentation also pointed out other uses of births and deaths data such as estimating net migration rate, conducting population and development analysis and making population policies. The presentation emphasized that the preferred source of birth and death statistics is civil registration. However due to the lack of reliable vital statistics derived from civil registration system, the Division relied heavily on other complementary sources such as the sample registration, population censuses and sample surveys.

20. The experts welcomed the structure of the revised chapter as well as the elaborations on uses of vital statistics. Regarding the list of vital events covered in the chapter, there was a suggestion that such list might be expanded to cover the increasing number of non-marital unions (partnership). There were also comments related to abortion and stillbirth. In the current *Principles and Recommendations*, abortion appears only in one footnote and further discussion might be necessary in the text. In addition, the term stillbirth, equivalent of late foetal death in the current *Principles and Recommendations*, should still be referred to because of its frequent uses in countries.

21. Regarding the uses of vital statistics, the elaboration could benefit from being organized in a more user-friendly and less technical manner (cohort analysis, for example) and closer to simplified and forceful structure and language, more suitable for addressing concerns of policy makers and provide guidance to data producers.

22. The elaboration of the use of vital statistics could also benefit from a clear and unambiguous statement that without statistics on births and deaths it is not possible to estimate the total population of a country, province or any other civil division; and, in turn, without population estimates it is not possible to compute a majority of relevant indicators as the total population is the most common denominator for computing them. It was further stressed that for the purpose of a correct computation of total and local population and rates, the population of reference needs be the same for all vital events.

23. The meeting emphasized the importance of reliable and timely vital statistics for producing development indicators, and in this regard the section on use of vital statistics in the *Principles and Recommendations* should discuss indicators for relevant internationally agreed development goals in general and not specifically on Millennium Development Goals, which are due for final assessment in 2015 and taking into account that the lifetime of the revised *Principles and Recommendations* is certainly expected to extend well beyond 2015.

24. It was felt that the text on the use of vital statistics for epidemiological studies could be further improved and more specific comments may be obtained from PAHO. In addition, the role of health institutions in providing real-time alert on rare causes of death should be emphasized.

### **C. Vital Statistics System**

25. UNSD made a presentation on the structure and content of the proposed revision for the chapter on vital statistics system. The presentation highlighted the changes proposed in the chapter from the current *Principles and Recommendations*. One of the most important changes was that the proposed chapter covered aspects of a vital statistics system, in relation to all possible sources, while the current *Principles and Recommendations* focused only on vital statistics derived from civil registration system.

26. Other specific changes being proposed include (a) definition of a vital statistics system is incorporated in Section A; (b) quality control is added as a new principle for the collection and compilation of vital statistics in Section C; (c) more elaborated discussion is presented on the advantages and disadvantages of the three major alternatives in administering the vital statistics programmes in Section D; (d) topics and themes that can be collected in censuses and in single-round retrospective surveys to estimate fertility, mortality and nuptiality are incorporated in Section F; and (e) a new subsection - protection against disclosures in statistical presentations – is added while discussing presentation of results and data dissemination in Section H.

27. Specific comments regarding each Section of the chapter are presented below.

28. Definition of vital statistics. Three of the vital events included under the current definition of a vital statistics system, namely adoption, legitimations and recognitions are linked more specifically to civil registration system rather than to vital statistics. Since a vital statistics system is defined as a total process of collection through civil registration or enumeration method, the three vital events might not be so relevant. Hence, the meeting concluded that there would be a need to re-visit the definition of the vital statistics system and the list and definitions of vital events accordingly.

29. Sources of vital statistics. The experts emphasized that civil registration should be the preferred source instead of “main” source of vital statistics (referring to paragraph 6 in the paper<sup>10</sup>). The diagram included in the current *Principles and Recommendations*<sup>11</sup>

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<sup>10</sup> Proposals for *Principles and Recommendations for a Vital Statistics System*, Rev. 3 – Part One, Chapter 2, ESA/STAT/AC.233/3, para 6



gives a wrong illusion that all data sources listed in the diagram bore equal weight and it should be revised. In addition, listing health records as an independent source in the diagram as well as in the accompanying text was not appropriate. Health records should instead be considered as an integrated part of the civil registration system.

30. Reiterating that a well functioning civil registration system is the most preferred and reliable source of vital statistics, the meeting concluded that one source alone cannot meet all the requirements of detailed and comprehensive vital statistics. There is certainly a need for surveys to complement the statistics generated from civil registration as well as for population censuses in some cases and for other sources as well. In that context, a more detailed elaboration on linking records from different sources – both deterministic and probabilistic – should be included in the text together with an extensive elaboration on protecting confidentiality of individual records, while at the same time preventing the use of confidentiality argument for limiting access to micro-data.

31. Priority in data collection. When discussing priority in data collection, cause of death data should be treated as first priority, same level as the collection of births and death statistics.

32. Principles for the collection and compilation of vital statistics. The experts welcomed the additional principle introduced on quality control and considered it very important for a functioning vital statistics system. It was suggested that the term “quality assurance” be used instead of “quality control”. More detailed guidelines on quality assurance steps and independent retrospective quality assessment were necessary and such guidelines should also cover quality assurance measures for causes of death statistics<sup>12</sup>.

33. The principle of universal coverage refers to a vital statistics system including all vital events occurring in every geographic area and in every population group comprising the national area. The principle may wish to take into consideration vital events occurred abroad to the population of reference of a country, which may be proportionally significant in some cases. The problem of the unique allocation to a single country of events occurring abroad was also mentioned. This point is particularly relevant for international statistics to avoid double counting.

34. While discussing the major principles for a vital statistics system – that is, universal coverage, continuity, confidentiality, regular dissemination and quality assurance – the meeting concluded that the revised set of principles and recommendations include a comparison of each of the sources of vital statistics and their compliance with these principles. This will show comparative advantages of each of the sources – civil registration, population register, population censuses, sample surveys, health records and so forth – thus providing an unambiguous message about the suitability of each source to meet the international standards for accurateness, reliability and timeliness of vital

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<sup>11</sup> *Principles and Recommendations for a Vital Statistics System, Revision, Revision 2*, United Nations Publication, Sales No. E.01.XVII.10, United Nations, New York, 2001, page 9

<sup>12</sup> Proposals for *Principles and Recommendations for a Vital Statistics System, Rev. 3 – Part One, Chapter 2*, ESA/STAT/AC.233/3, para. 19

statistics. In the current set of *Principles and Recommendations* this assessment is missing and that may mislead national statistical authorities in assuming that each source carries the same weight.

35. Designation of responsibilities. The vital statistics administration can be placed under the national statistical agency or within the civil registration administration, or different vital statistics functions can be designated to one or more government agencies whose work relates to those functions. The experts considered that an elaborated discussion on the advantages and disadvantages of the above three major alternatives is not necessary.

36. Coordination in the vital statistics system. The experts agreed that coordination and collaboration are crucial and also challenging for a functioning vital statistics system. Related to the interaction between various institutions within the vital statistics system it is necessary to focus not only on cooperation between them, but equally importantly on the collaboration, as it is often necessary for them to work together under a joint action-plan. Latest development in technology could improve the efficiency of communication between various institutions.

37. Topics and themes to be covered in vital statistics system. The list of core topics needs to be more flexible to reflect changes in the society. For example, there is an increasing number of non-marital partnerships and the current sets of Principles and Recommendations focus only on marriages and marital status. The revision might also consider distinguishing biological and adopted parents for the registration of live births. Migration related topics such as duration of residence, place of residence at a specified time in the past and place of birth may be considered critical enough to be upgraded into core topics; this might also apply to ethnicity and race variable for countries with diverse population. One variable – occupation – was questioned for its usefulness for analysis. The variable itself does not provide enough information unless the length of stay of the person within the same occupation is also collected.

38. Operational principles for compiling and processing vital statistics. The current sets of *Principles and Recommendations* provided guidelines on three stages of a vital statistics system: (1) advance planning; (2) national centralized compilation from individual statistical reports and (3) tabulation. The experts pointed out a few areas that were missing from the Section. First at advance planning stage, the importance of international comparability should be emphasized. The second area that needs to be incorporated is guidelines on documentation and archiving within the vital statistics system. Reference to recent initiative in data documentation of micro-data might be helpful. In addition, detailed guidelines on whether imputation is necessary and under what circumstance that imputation is necessary should be provided.

39. Presentation of results and data dissemination. It was felt that this section was very much data producer driven. The revision should take into consideration different types of users and their needs. More analytical and interpretive data products might be helpful.

40. The experts welcomed the new sub-section on the protection of privacy and data confidentiality at dissemination stage. It was noted that, however, guidelines should be provided to prevent the use of confidentiality argument for limiting access to micro-data. Presenting good practices from countries might be informative. Further discussion on confidentiality in this Section should also refer to the principle of confidentiality covered in the Section on Principles for the Collection and Compilation of Vital Statistics.

41. Guidelines on data dissemination should also take into account recent development in the area. For example, more and more data dissemination is carried out through web-based dynamic portals rather than traditional printing. There is also established standard format that is being used or tested for easy data sharing between different institutions such as the Statistical Data and Metadata eXchange (SDMX) standard. Another practice related to data dissemination is the equal rights to access data, used in Eurostat, which may be helpful in further developing this Section.

#### **D. Sources of vital statistics**

42. Two presentations were made in this Session. The first one presented on sources of vital statistics in Ethiopia. Ethiopia relies on population censuses and sample surveys for vital statistics. At the moment, there is no established civil registration system in the country. Occasional sample registration was administered for selected areas from 1970s to late 1999 when the government decided to establish a complete civil registration system following the United Nations principles and recommendations. Currently the country is trying to enact the civil registration law that will delineate responsibilities of various institutions involved with civil registration and vital statistics. The Central Statistics Agency of Ethiopia has been taking a leading role in developing technical aspects of the civil registration system in the country, in particular to enforcing the linkage between civil registration and vital statistics.

43. The second presentation made by Mexico outlined the advantages and disadvantages of various data sources – civil registration, population censuses, sample surveys and health records to obtain vital statistics. The presentation also provided an overview of the civil registration and vital statistics systems in Mexico. Mexico has a decentralized civil registration system and each State in the country has its own registration law. The National Institute of Statistics and Geography is responsible for obtaining vital statistics from civil registrars via established coordination mechanism and for dissemination of data. The most recent vital statistics is available for the year 2009. For some of the variables non-response rate could reach 15%. Ill-defined information for certain variables is also an issue that needs to be dealt with. Other complimentary sources of vital statistics include the population censuses and demographic surveys.

44. Taking note of the complexities and challenges of establishing and developing functioning civil registration system, it was recommended that the revision of Principles and Recommendations should clarify and differentiate the principles from the recommendations and elaborate on the role of the civil registration system, articulating its key functions.

45. Though there was the perception that establishing a civil registration was deemed costly, it was not necessarily so, if both the advantages and disadvantages of each vital statistics source are weighed. This was especially true if a long-term solution was sought and the limitations of the other sources of vital statistics were factored in. Comparing the various sources of vital statistics against the satisfaction of purposes—be they legal, administrative or statistical — civil registration is by far the most advantageous. Another unique feature of civil registration is its capacity to provide information at the local level (small area) on a continuous basis and for various purposes.

46. The civil registration system was viewed as the most recommended source of vital statistics fulfilling the principles of universal coverage, continuity, confidentiality and regular dissemination. However, it was noted that there is no one source that can satisfy all vital statistics needs. It was observed that one of the limitations of civil registration as a source is the lack of good socio-economic information. Therefore it is important to link data from civil registration to survey and census data as well as to health and other administrative records. For example, linking birth data from civil registration system with health records provides opportunity to conduct analysis on the impact of maternal and paternal socio-economic characteristics on birth outcomes. The data linkage is possible with or without unique identification numbers. Accordingly, deterministic or probabilistic linking could be used to link the records. The experts requested that more specific guidelines on the combination of various sources to conduct in-depth analysis on vital events related phenomena be provided in the revision of the *Principles and Recommendations*.

47. Taking into account the differing levels of development of civil registration systems across the world, especially between developed and developing countries, and noting the differing extent to which the civil registration system is utilized in the production of vital statistics from country to country, it was suggested that it might be worthwhile to assess the types of civil registration systems in place in countries with respect to coverage, quality, laws and organizational setups before making recommendations. This would help to identify the various stages of development countries find themselves in as well as guide the development of minimum requirements and standards relevant to the situation of specific groups of countries. In order to ensure that the recommendations and implementation guidelines are responsive to the needs of countries and meaningfully contribute to advancing civil registration system, they should be provided according to the level of development of the systems as they exist now in the countries. It was observed that the demand for improving vital statistics is relevant in the context of both developing and developed countries.

48. There was an interest in a survey of sources of vital statistics in various countries. The experts were informed that Eurostat conducted a study on the definitions and methods of collection on births, deaths, marriages and divorces in 31 European

countries.<sup>13</sup> Similar study could be carried out for others countries in the world and, in collaboration with Eurostat, updated for those European countries.

### **E. Civil Registration System**

49. The first presentation in the Session examined the challenges faced in Ghana while trying to improve its civil registration system. The first challenge was the low coverage in the country. Civil registration was mandatory in Ghana but the law was not enforced. The general public was not motivated to register because registration documents were not required for school or for other administrative purposes. Therefore registered births and deaths were mainly those occurred in the hospitals. Low coverage was also associated with the fact that local registration service relied mostly on volunteers and was difficult to access and not reliable. The linkage between the civil registration system and Ghana Statistical Service was interrupted for a period of time and resumed only recently.

50. The presentation also discussed strategies for improving the civil registration system in Ghana. They include: (a) building partnership with other administrative institutions to make birth and death certificates required for other administrative purposes, such as attending school or obtaining health services; (b) computerizing civil registration records for easy management, storage and retrieve of records; and (c) analyzing existing data to identify the groups that were typically under-registered.

51. The presentation outlined a number of suggestions for the revision of the *Principles and Recommendations*. First, the current *Principles and Recommendations* provide general guidelines on what should be covered under legal framework for the civil registration and vital statistics systems. It would be useful if such guidelines are provided using a stepwise approach, first outlining the essential elements to be covered in the law and then followed by other items. Second, the current *Principles and Recommendations* are not clear on how exactly a country should operate on specific items such as the number of registration offices required and the location of the offices etc. The *Principles and Recommendations* would also benefit from elaborating on how to associate civil registration system with other national programmes such as the Identification System or the Population registers. It also recommended that vital statistics should be compiled and made available, regardless of their completeness. Only through the compiled statistics it is possible to identify the reasons behind under-registration and the characteristics of those who are not registered. Such understanding is important to identify gaps and to improve the system.

52. The second presentation made by AfDB made some observations on the existing chapter for civil registration and provided suggestions in the following aspects:

#### The role of civil registration system

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<sup>13</sup> Demographic Statistics: Definitions and Methods of Collection in 31 European Countries, 3/2003/E/n°25, Eurostat, 2003, available online at [http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-CC-03-005/EN/KS-CC-03-005-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-CC-03-005/EN/KS-CC-03-005-EN.PDF)

53. Civil registration should be treated as the only source that can provide data on vital statistics. Other sources should be treated as supplementary or interim rather than alternative.

54. In general regarding the use of civil registration for vital statistics purposes, one suggestion was to produce a complete set of international standards and guidelines on civil registration to assist countries.

#### Linkage between civil registration and vital statistics system

55. The current chapter presents processes and procedures of civil registration without showing its institutional, management and operational linkages to vital statistics system. The purpose of the whole chapter should have been to show the linkages of the two systems in generating the required vital statistics. Therefore, instead of treating vital statistics as a by-product of civil registration, the role of vital statistics system for civil registration system in three aspects - technical, operational and institutional - should be emphasized. The vital statistics elements should be built into the civil registration management and operational infrastructure. This suggestion applies to the concept underlying the entire chapter, as well as to specific sections within the chapter, such as section B on the role of civil registration and section D on the characteristics of civil registration method.

#### Other comments

56. Clear guidelines on delineation of responsibilities between civil registrars and statistical offices are necessary. The *Principles and Recommendations* should emphasize the importance of including specific requirement for statistics and transfer of registration records to statistics in the legal framework for civil registration.

57. The service delivery aspect of the civil registration system for individuals, households, institutions should also be emphasized. (Para. 323 on the goal of civil registration)

58. The discussion on the organizational structure of a civil registration system needs to be more specific. For instance, putting local civil registration offices or focal persons in villages and local communities without parallel developments and existence of public administration offices and other judicial, health, and education at the minimum, would not result in a sustainable civil registration system.

59. The rationale for timely registration of vital events is not complete. Instead of only referring to memory lapse when delayed registration occurs, the implication of delayed registration on legal, administrative and statistical values of the records and the evidences that would be extracted from the records should also be addressed.

60. There should be a clear recommendations that the registration of any vital event, for both regular and delayed registration, should be free of any charge or fee.

61. Additional guidelines on the preparation of statistical reporting and data processing are needed for countries with a federated system.
62. Regarding the definition of vital events the current *Principles and Recommendations* only considers the statistical definition. There is a need to build a harmonized definition addressing legal, statistical and other information and data requirements.
63. There is a need for guidelines on resource mobilization as well as building partnership for implementing the *Principles and Recommendations*.
64. The discussant from Australia emphasized some important aspects that need to be taken into consideration while revising the Principles and Recommendations. First there should be a clear distinction in the revision between principles and guidelines. Second, key functions of a civil registration system – legal, protection of human rights, service provision and statistical – should be referred to more often in the revision. Third, to illustrate the linkage between civil registration and vital statistics, a diagram showing the information flow among different agencies – civil registrar, health institutions and national statistical office – would be helpful. Within the information flow cycle, national statistical office should play a leadership role in vital statistics and in quality assurance and evaluation. The last point of the presentation focused on the integration of civil registration, population censuses and sample surveys for a broader set of vital statistics.
65. The representative from Brazil shared the experience from the country in its pathways in improving the birth registration. In Brazil multiple measures were taken over the past 15 years that resulted in the complete birth registration: (a) instituting a no-fee birth registration by law in 1997; (b) compensating the civil registration administration for providing free registration in 2000; (c) amending the law in 2002 to require all health institutions – public or private – having births registered before the child leaving the hospital; (d) launching national campaigns on civil registration coordinated by the Secretariat of Human Rights and allocating registration units within hospitals and requiring birth registration for social programmes in 2004; (e) providing everyone access to documentations and creating a national committee on civil registration in 2007 and (f) making agreement with local government in 2008 to launch local campaigns to improve civil registration. As a result of all the above actions, the birth registration coverage improved from around 70% in 1991 to 92% (most recent). The 2010 Brazil population census included a question to residents 10 years of age and under on whether his or her birth was registered; the results were not available at the time of the meeting.
66. It was agreed during the discussion that civil registration system was still the preferred source for vital statistics. Some comments were made on strategies for improving the completeness of civil registrations system and those strategies may be incorporated into the revision of the *Principles and Recommendations*. For example, civil registration and vital statistics system should be responsive to the needs of policy makers and other users. This will help generating the interest of users and in turn benefits the overall system. Other suggestions include improving the services that civil registration system provides to citizens; and developing partnership with other institutions to require

birth or death certificate for services such as universal health care, schooling or providing inheritance rights. The current national movement in starting a national identification (ID) system or a population register also provides good opportunity for civil registration system to be improved due to the crucial role of registering vital events in the national ID system or in population register.

67. Reaching indigenous population and people who live in remote areas for civil registration is always a challenge. The revised *Principles and Recommendations* might consider incorporating several best practices in reaching those difficult-to-reach population groups. In some cases, village heads and chiefs may be asked to provide notifications of vital events for those occurred in remote areas or in indigenous population groups.

68. It was pointed out that there was a perception that National Statistical Offices viewed vital statistics as a by-product of the civil registration system. It was suggested that this perception needed to be changed and that the civil registration system cannot be fully developed without the active participation of national statistical offices. National statistical offices should advocate and take lead in the development of civil registration and vital statistics systems. Strong partnerships between national statistical offices and civil registration administration were especially important with regard to data quality issues.

69. The recording, coding and processing of causes of death was identified as one of the main challenges. It was suggested that the revision of the *Principles and Recommendations* took this aspect into consideration.

70. It was noted that currently there were no international principles and recommendations for civil registration system; operational guidelines for the implementation of civil registration were also lacking at both the international and regional levels. Civil registration system was not fully elaborated in the current series of manuals and handbooks on civil registration and vital statistics systems. Guidelines were particularly needed to help delineate the responsibilities of the civil registration system from those of the national statistical offices. Recommendations were also needed on institutional and infrastructural integration with other public institutions.

## **F. Population register as a source of vital statistics**

71. A presentation was made by the United Kingdom (UK) introducing sources of vital statistics in the country as well as the future plans. UK does not have a population register and instead relies on the civil registration system for vital statistics. The civil registration system is managed by the General Registers Office in England and Wales, Scotland and Northern Ireland. In England and Wales, civil registration is separated from the statistics function and data sharing between registrar and statisticians is specified under legislation. Most of the information collected at registration of births, marriages, deaths and stillbirths in the UK is used in the production of national statistics as well as in medical and social research. Statistics on births and deaths are essential in documenting the changes occurred in national and local populations. They feed directly into mid-year



population estimates and projections that are used directly by central and local Government for planning services and allocating resources.

72. The UK Office of National Statistics (ONS) is working on a project that takes advantage of administrative sources and existing household sample surveys to obtain census-type statistics, as a substitute for traditional population census.

73. As for the revision of the *Principles and Recommendations*, the presentation emphasized that the difference between the civil registration system and population register should be identified and clearly stated in the revision. The revision should also point out that the two systems are intrinsically linked and a reliable civil registration system is the key to the success of a population register.

74. A representative from Germany commented on the UK paper by first introducing the status of Germany in obtaining vital statistics. Germany does not have a population register. Main population data are obtained from local registers and the quality of the registration data is assessed through sample surveys. The representative pointed out that there were a number of characteristics related to population register for statistical purposes: (a) population register is mainly for administrative purpose and additional efforts need to be made to ensure that the register also serves statistical purposes; (b) comparing to civil registration, population register tends to include less variables related to vital events and hence limiting the value of statistics for in-depth fertility and mortality analysis; and (c) more effort is required to collect migration statistics when a population register is in place and coordination mechanisms among population register, civil registration and national statistics office should also be in place. The representative suggested that the revision of the *Principles and Recommendations* should clarify the differences between a population register and a national ID system. The revision should also emphasize the statistical purpose population register serves.

75. The discussion that followed focused on four main points for the revision of the *Principles and Recommendations*: defining the population register and its uses; distinguishing between civil registration and population register; recognizing the benefits of both systems; and understanding that both systems are intrinsically linked.

76. The definition of population register should be clearly provided in the revision. A related concept - the national ID system – should also be defined and difference between the two concepts should be identified. Experts agreed that population register should be a system that covered everybody in the country (or all residents of the country) while the national ID system may only cover a certain segment of the country, for example, population 16 years of age or above. As for the relationship between civil registration system and population register, it was noted that population register can be considered, in a minimum, as civil registration plus migration, both internal and international and should be continuously maintained and updated.

77. Population register has its advantages in terms of having information on the complete life cycle of a person. With data derived from a population register, specific cohort analysis may be done for in-depth analysis. However, the revision of the

*Principles and Recommendations* should also state the pre-requisite of a functioning population register as well as the limitation of population register as a source of vital statistics. Maintaining a population register requires a highly functioning administrative system as well as sufficient information technology resource. Constant maintenance and updates of a population register require much more effort comparing to maintaining a civil registration system. Population register also has its limitations – usually fewer vital events related variables are covered comparing to those being covered in the civil registration system, except for the most developed population registers such as those in Nordic countries while extensive analysis based on population register data is possible.

78. Most population registers operated in countries include a unique identification number that greatly facilitates the linking of data from different administrative sources. There are also population registers without the unique identification numbers. Examples include the Local Inhabitant Register in Germany and the civil status register in Francophone countries. Such examples from countries might be helpful in the revision to assist countries not particular in favor of having national unique identification numbers but with an interest to developing a population register.

#### **G. Use of health services records for vital statistics**

79. The first presentation was made by Thailand on the use of health care service administrative data to improve vital statistics. The presentation introduced briefly the history of the Thailand civil registration system. The first civil registration law was enacted in 1909 and in 1917 birth and death registration became mandatory. Starting in 1936, a network of local registration offices was created and guidelines on birth, death and foetal death registration were provided. The first comprehensive civil registration act was enacted in 1956 and the act was revised again in 1972 that clearly prescribed the organizational structure of the civil registration system, delineation of responsibilities as well as technical specifications for the registration. In 1982 the Population Identification Number Project was initiated which required a birth certificate to be provided when requesting a personal identification number. Meanwhile, population information started to be computerized. Currently the Thailand civil registration system is under the Bureau of Registration Administration, within the Department of Local Administration, Ministry of Interior. The Bureau maintains and updates the population database and issues identity cards and family booklets. Thai identity card is required to obtain government services such as receiving universal health care, attending school and opening bank account. This requirement greatly improved the coverage of birth registration in the country.

80. The second part of the presentation provided an overview of the vital statistics system in Thailand. Compilation of vital statistics is carried out by the Health Information Center under the Ministry of Public Health. Information on births and deaths registered by the Ministry of Interior were sent to the Ministry of Health electronically. Causes of death information was provided by hospitals via internet. The Ministry of Health provides vital statistics to provinces on a monthly basis and also compiles, codes and publishes the data.

81. In terms of the use of health administrative records, deaths records in Thailand are linked with electronic in-patient records for deaths occurred outside of the hospital. The linking is done by matching personal identification numbers. The information contained in the hospitalization records helps identifying the cause of death, which is likely to be ill-defined without medical doctor's certification.

82. Health care records are also used in Thailand to improve the quality of maternal mortality ratio. All death registration records for women at reproductive age are linked with in-patient records to identify those who have in-patient records within nine months before death occurred. Then from the death certificate maternal death can be identified.

83. The presentation made by WHO explained the role of health sector for vital statistics and its implication for the revision of the *Principles and Recommendations*. Health sector has two areas of responsibilities in the vital statistics system: the certification of causes of death and the notification of vital events. The current *Principles and Recommendations* emphasized the importance of health sector on certifying cause of death but the advantage of health sector with its widespread health care network for the notification of vital events was not given sufficient elaboration.

84. The presentation listed important items to be included in the legal framework for civil registration. They include (a) clear and unambiguous definitions of live birth and fetal death, aligned with the standards of the International Statistical Classification of Diseases and Related Health Conditions (ICD) 10th Revision<sup>14</sup>; (b) the importance of registering deaths occurring in live born infants, including those that take place within a short time after birth, as well as their births; (c) the role of all health facilities in reporting births and deaths; (d) adopting international standard death registration form with deaths ICD-compliant and certified; (e) identifying maternal deaths via a checkbox added to the death certificate; (f) specifying official document required for burial or cremation; (g) specifying responsibility of trained physicians in certifying cause of deaths; and (h) providing information on legal and procedural processes for accidental deaths.

85. Other necessary guidelines for the overall registration of births and deaths include procedures for notification, registration and certification; requesting information through birth application form on maternal medical history; different procedure for births and deaths occurred within and outside of health facilities; and ways to involve community health workers to notify births and deaths occurred outside of the health facilities.

86. The presentation also covered extensively on how to obtain reliable cause of deaths statistics for deaths occurred within or outside of health facilities. It was emphasized that for deaths occurred within the health facilities, trained physicians should certify the causes of death. Accidental deaths should also be assessed by medical doctors and referred to coroner or special medical examiner for further investigation. Causes for deaths occurred outside of the health facilities can be provided by village head or local registrar if medical certification is not available. However such information is considered

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<sup>14</sup> *International statistical classification of diseases and related health problems*. 10th Revision, version for 2007. Available at: <http://apps.who.int/classifications/apps/icd/icd10online/>

unreliable and should not be combined with cause of deaths certified by trained physicians.

87. Coding of cause of death should be done by clinical coders rather than medical doctors. The coding could be centralized at the Ministry of Health or Ministry of Interior, or decentralized in the hospital. Automated coding system proves to be efficient with the assistance of specialized coders for complex and external causes.

88. Verbal autopsy, which uses standardised questionnaire to ask caregivers, friends or family about signs and symptoms experienced by the deceased person before death to determine cause of death, is used as a research tool in general rather than a routine tool to assign causes of death.

89. The presentation also noted that quality evaluation for cause of death was important and should be addressed in the revised *Principles and Recommendations*. In conclusion the presentation highlighted the important role of health sector for vital statistics purposes.

90. The role of health institutions was extensively discussed in the meeting. It was agreed that health institutions served multiple purposes in providing good quality vital statistics. First, the widespread network of health workers and clinics at local area enable them notify the vital events to civil registrars. This in turn helps improving the coverage of the civil registration. The experience of several states in India showed significant improvement in birth and death coverage from 50% to around 80% when civil registration office teamed up with health services. Second, health institutions are also indispensable in certifying causes of deaths, which is crucial for public health interventions. It was recommended that the chapter on health institutions explain the above two major functions of health institutions.

91. In addition, the revision of the *Principles and Recommendations* should elaborate more on the collection and compilation of cause of deaths statistics, focusing in particular on the certifying and coding aspects. Only medical doctors are qualified to provide reliable and useful causes of deaths information. Causes of deaths certified by non-health professionals should always be analyzed separately from those that are done by medical doctors. However, the possibility of training both physicians and non-professionals could be explored to improve the quality of certification. Coding of causes of deaths should be carried out by trained professional coders, rather than relying on medical doctors. Automated coding system can be efficient. Guidelines targeting countries at different level of development in collecting and compiling cause of deaths data may be helpful.

92. Detailed guidelines on the evaluation procedures in particular related to data on cause of death should be provided. For example, there are techniques to identify ill-defined causes of deaths. Verbal autopsy may also be used to evaluate the accuracy of cause of deaths information.

## H. Other administrative records for vital statistics

93. The first presentation provided an overview of the data sources used in India for vital statistics purposes. Two main sources were used in India – the civil registration system and the sample registration system. The civil registration system is responsible for collecting causes of death through medical certificate. The Office of Registrar General is responsible for the civil registrations system since 1969 when the Birth and Death Act was enacted. Despite of the continuous efforts made in the past 40 years, the system still suffers from under-registration and produces unreliable statistics. The sample registration system in India was also established around the period of 1969-1970. Due to the unsatisfactory availability and quality of vital statistics generated from both sources, India is looking to extract more information from administrative sources.

94. The second presentation introduced the history of the civil registration and vital statistics system, as well as the challenges emerged for civil registration and vital statistics in Jamaica. The Registrar General's Department is responsible for civil registration and the Statistics Institute is responsible for vital statistics in Jamaica. The significant increasing number of sudden and violent deaths in the 1970s and 1980s brought major challenges in the registration of deaths. In 1999, a committee was formulated to assess the coverage of death registration in Jamaica and to propose strategies for improvement. Multiple administrative sources – hospitals, courts and police – were used to evaluate the death data registered between 1996 and 1998. Major challenge in producing vital statistics is that it is difficult to build coordination mechanism between the Registration General's Department and the Statistics Institute.

95. The challenges faced by Jamaica on the use of administrative sources, such as the lack of coordination between stakeholders, and low quality and timeliness of data on causes of deaths are common to many countries. One suggestion that might be useful to improve the collaboration between agencies is to include the collaboration mechanisms in the legal framework.

96. The experts also found it useful for the revised *Principles and Recommendations* to define administrative sources. Some data sources mentioned earlier in the Jamaican presentation such as health service and court are considered to be part of the civil registration system rather than an independent source of data. Even within the health sector, different types of data are available. For example, there are health administrative records such as medical billing and health reimbursement records as well as health clinical records such as doctor's notes and laboratory results.

97. There was also discussion on the use of administrative records – whether the records were used to obtain vital statistics or to evaluate and adjust existing civil registration-based vital statistics. In Australia, records from coronary, police and insurance are used to supplement the civil registration data. Registry data from cancer registry and congenital malformation registrar are used in the United States to evaluate vital statistics. More guidelines are necessary in terms of the transparency required of administrative records, how to ensure the access by national statistical offices and how to use the records to improve vital statistics.

## I. Population censuses and sample surveys

98. The first presentation made by Hungary outlined the extended uses of population censuses and sample surveys for vital statistics and other related information in the country. The main source of vital statistics in Hungary in terms of total numbers and those classified by basic characteristics is civil registration. However population censuses and sample surveys provided opportunities for in-depth analysis. Some of the examples of uses of census and survey data in Hungary included (a) generating vital rates by major social-economic characteristics, i.e., education, occupation and economic status; (b) conducting extended fertility analysis; (c) conducting analysis of fertility and childbearing behavior by cohorts in inter-censal years; (d) studying fertility and mortality differentials for migrants and non-migrants and obtaining information on vital events occurred abroad; (e) calculating health adjusted life expectancy (HALE) based on the disability questions asked in population censuses; and (f) assessing unmet need of contraception.

99. The South African presentation noted that the major sources of vital statistics in the country were the population censuses and community surveys. Changes over different rounds of censuses – 1996, 2001 and 2011 – on questions related to vital events were highlighted. The use of population censuses and sample surveys include (a) generating total population and making population projection for inter-censal years; (b) producing data on the numbers of live births, deaths and deaths due to AIDS while linking with other administrative sources; (c) evaluating the completeness of birth and death data derived from civil registration system; and (d) estimating fertility level using indirect methods.

100. While summarizing the papers by Hungary and South Africa, the discussant from China compared the systems in both countries with the *Principles and Recommendations* and discussed the difference between the system in China and those in Hungary and South Africa. She also raised a question regarding the possibility of linking census data with administrative data when there was no unique identification number.

101. The discussion in this session focused on the use of censuses and sample surveys for detailed analysis on vital events and their characteristics. Population census and sample surveys by definition collect a large number of socio-economic variables and in-depth analysis can be done by linking with civil registration records. Even when there is no unique identification number available, probabilistic linking can be used to match the records in these two sources. Australia, Canada and the United States all have the experience of linking civil registration records with population census records to study the impact of socio-economic characteristics on mortality. As pointed out by one expert that population census may also be used to conduct follow-up surveys.

102. It was emphasized by experts that the same definition should be used consistently across various data sources. This refers more specifically to the definition of usual residence that is used to calculate vital rates. The use of sample surveys may increase the risk of inconsistencies.

103. The use of census data as denominators for calculating vital rates is well known. However one should be cautious when using population estimates derived from censuses for periods that are distant from the census year. Even when information on births, deaths and migration are taken into consideration, retrospective adjustment on population estimates based on the latest census data is recommended.

104. It was pointed out during the discussion that the current *Principles and Recommendations* only referred to the traditional census, that is, census data being collected through the enumeration method. It was suggested that the revision should take into consideration countries that conducted the register-based censuses.

## **J. Strategies for improving civil registration and vital statistics systems**

105. The first presentation by Canada highlighted its strategies for improving the civil registration and vital statistics system in the country. The first important element for efficient civil registration and vital statistics systems is collaboration between different institutions. The civil registration system in Canada is a de-centralized system (for the registration of births, deaths and marriages) and practices vary among provinces. Vital statistics compilation and dissemination are responsibilities of Statistics Canada. To maintain smooth flow and consistency of information from provinces to Statistics Canada, the Vital Statistics Council was created with members from Provincial Registrars' offices and from Statistics Canada. The Council fosters collaboration and exchange of experiences among provinces. The Council also serves as a contact point, representing the civil registration and vital statistics agencies, with other federal agencies in the country. For example, the Council works with the Passport Canada on establishing the required identity document (i.e., birth certificate) to apply for a passport.

106. The second element that is considered important is the training provided at different levels. Training materials are developed for daily training of civil registrars and are available to all staff. Cross training, i.e., training of personnel for full spectrum of areas, is implemented to allow segregation of duties when dealing with the issuance of identity documents. Specific training activities are also implemented for cause-of-death coders. Extensive trainings are provided to new coders and double coding is in place for a period of time until the new coder fully qualifies for the job.

107. Information technology is also considered crucial in improving the quality of vital statistics, in particularly the timeliness of data. The National Routing System implemented in Canada allows new and amended electronic civil registration record being transferred in real time to Statistics Canada for processing. This has greatly improved the timeliness of vital statistics.

108. Other strategies for improvement include improving services provided to residents; offering incentives for registration; and constantly monitoring the quality of statistics. Electronic birth and death registration adopted by many provinces in Canada allowed a fast service delivery. For example, a live birth may be registered online and the birth certificate is available two days after the registration. Birth registration is also bundled with other social welfare programmes. Once a birth is registered, parents have

the option to have the birth information forwarded to social welfare agencies automatically so there is no need to go through bureaucracy steps for eligible welfare. The bundling of services not only provides incentives for birth registration but is also welcomed by government agencies as it improves efficiency and reduces workload. Monitoring of quality of vital statistics is also important to ensure high quality of data.

109. The presentation from ECA outlined strategies that should be considered while trying to improve civil registration and vital statistics systems. They are (a) securing political commitment; (b) developing and implementing action plans; (c) establishing coordination mechanism at highest level; (d) fostering advocacy and partnerships so the general public and policy makers understand the importance of civil registration system; (e) creating demands for products of the civil registration, i.e., registration records, certificate and statistics; (f) increasing public awareness by a more targeted approach; (g) improving service delivery; (h) making special effort to improve death registration; (i) developing human resources by provide regular training to all relevant personnel on all aspects of civil registration and vital statistics; (j) conducting evaluation studies to assess the implementation of the action plans; (k) mobilizing funds to implement the action plan from stakeholders, government agencies as well as regional and international organizations.

110. The experts felt that content for Chapter 4 of the current *Principles and Recommendations* was still relevant. Relating to strategies for improvement, a number of important issues emerged during the discussion. The first one corresponds to the linking the improvement of civil registration system to national security and personal ID system. This strategy was mentioned as a way of convincing the government and stakeholders about the importance of civil registration.

111. Another important element for the improvement of civil registration system is continuous training. It was recommended that training should be regular and on all aspects of civil registration and vital statistics systems. The training should also be provided not only to civil registrars and statisticians but also to health workers who are indirectly involved in the birth and death registration. One suggestion to improve sustainability of institutional knowledge is to build training capacity for demographic or training institutes within the country.

112. The meeting also noted the need to address the role of regional institutions, such as United Nations Regional Commissions, as well as other regional and international organizations, in developing regional strategies to improve civil registration and vital statistics. It was concluded that the optimal vehicle for presenting this information would be the United Nations Statistics Division website on civil registration and vital statistics, as it provides for constant updates.

## **K. Computerization**

113. The presentation made by the United States outlined the computerization projects conducted in the country since 2004. The first project was re-engineering the National Center for Health Statistics (NCHS) system. Currently the system can transmit data



directly from 57 jurisdictions of the US to NCHS. The system also contains automatic data validation, electronic communication with States for confirmation or verification, automatic cause of death coding for at least 90% of the deaths and electronic alert on rare causes of deaths and unusual death patterns.

114. The second project is the State and Territorial Exchange of Vital Events (STEVE) System, which is a messaging application developed by NAPHSIS (organization representing state vital registrars and statisticians) and funded by NCHS for the electronic exchange of vital event data between jurisdictions. STEVE replaces the less secure practice of exchanging paper copies, line lists and printed computer abstracts which most States use for record exchange. Participation in STEVE is open to all US vital records jurisdictions and Canadian provinces that have signed the Inter-jurisdictional Exchange Agreement administered by NAPHSIS. Currently 16 States have implemented the system with 6 States preparing to implement. Beginning January 2014, STEVE will be the mandatory method for State reporting of births, deaths and foetal deaths to NCHS.

115. The third project is the Electronic Birth and Death Registration Systems (EBRs and EDRs). States have shown that the development of both systems throughout the United States is both feasible and affordable and can significantly improve data timeliness such that mortality and natality reporting can be considered an essential component in public health surveillance. Currently 35 jurisdictions have functioning EBRs and 31 jurisdictions have functioning EDRs.

116. NCHS is currently developing a system – VIEWS – that aims to improve the information that feeds into the automatic death coding system. The VIEWS validation application is a web service which will have the ability to receive encrypted cause-of-death literals from a State's EDR system. VIEWS can also run in batch mode for non-EDR states, where a file would be uploaded to run the rare cause and validation report. After receiving a literals file, VIEWS will apply the rules or validations against that file and return in real time any errors or warnings to State EDR and the State EDR will then display any warnings, errors, or user help from VIEWS on the EDR screen in the same format as other edits or messages are currently displayed.

117. To further help the physician and to improve data quality, NCHS and NAPHSIS have developed a web-based tutorial on how to handle specific causes of death. The prototype of this system was developed by New York City and the tutorial is required for physicians to certify a death certificate. This generalized web-based tutorial module will be offered to all States this year.

118. With the development of computerization, the State vital (civil) registration laws and regulations need to be modified to account for electronic registration of events as well as meeting growing concerns over the security of the systems and procedures for registering and issuing vital records. To meet these challenges, the Model State Vital Statistics Act and Regulations, last modified in 1992 is undergoing its most significant modification in over 50 years. The draft revision has been developed and just approved by the states in June 2011. This revision will now be reviewed within the Federal government and also through a public comment process and may be published next year

for States to update their current vital (civil) registration laws to better support electronic registration activities.

119. During the discussion, participants agreed that computerization was no longer a technology issue but rather a business modeling issue. From the experiences of the United States as well as other countries such as Canada that successfully implemented computerization into their systems, cooperation between participating agencies was the key element for success. In addition, by cooperating with other ongoing governmental projects and with private sectors, computerization might be able to get more support, financially and policy-wise.

120. It was suggested that the computerization chapter in the revised *Principles and Recommendations* should address the importance of cooperation mechanism as showcased in the US example. The revision should also guide countries through different pathways for those that are in different levels of development. A stage-wise approach may be plausible. For example, computerization could be adopted in various components - the registration process, data transition and vital statistics processing and compilation.

121. There was also a suggestion from experts that additional guidelines on standards for data transmission could be helpful. Confidentiality concerns related to the computerization process and the need for addressing the confidentiality issue in the legal framework should also be discussed in the revision.

#### **L. Evaluating the quality of civil registration information and register-based vital statistics**

122. The presentation made by Australia commented on the chapter *Evaluating the quality of civil registration information and register-based vital statistics* in the current *Principles and Recommendations*. It was felt that content of the current chapter was still relevant and the chapter provided a comprehensive view of various approaches – direct and indirect – to assess quality of vital statistics. However it was felt that the content of the chapter was very technical and dense and the revision could be more tutorial type and could benefit from reference to an assessment framework that provides guidance about why, when and how to assess different elements of the quality of vital statistics.

123. The presentation also provided an overview of a comprehensive framework, developed jointly by WHO and University of Queensland His-Hub over the past five years. The framework was developed to empower countries to draw action-based plan with the support of key stakeholders in their civil registration and vital statistics systems. The assessment framework is divided into a series of components and sub-components broadly equated with Inputs, Processes and Outputs. As a result, the process includes review of the appropriateness and adequacy of national legal frameworks, infrastructure and resources assigned to civil registration system, the organization and functioning of the civil registration and vital statistics systems as well as the extent to which births and deaths forms capture relevant information. Development of the assessment framework was informed by the United Nations guidelines and recommendations on the establishment and operation of civil registration and vital statistics systems including the *Principles and Recommendations* currently under review, and is fully aligned with these guidelines and recommendations.

124. The China presentation reviewed sources of vital statistics in the country. The main sources of vital statistics in China are population censuses and household surveys. Population census is conducted every ten years and is supplemented with a 1% population survey conducted in-between two censuses and an annual 1‰ population change survey. Administrative sources that can be used to generate vital statistics in China include those from the Ministry of Public Security, Ministry of Civil Affairs, Ministry of Health, Ministry of Education and the Population and Family Planning Committee. Vital statistics from administrative sources has the problem of under-coverage due to unreported vital events. Total population estimated from population censuses and surveys compared to those from administrative records (household registration system) are different. For example, the total population in 2008 was estimated by the National Bureau of Statistics to be 1328 million and 1321 million according to household registration records. At this stage administrative records in China may not be used as main source of vital statistics but do have the potential as complementary source.

125. The presentation made by a discussant from UNSD summarized the above two presentations and proposed three types of assessments to be covered in the revision of the *Principles and Recommendations*. They include quality assurance that should be integrated into the daily operation of civil registration and vital statistics systems, the independent evaluation studies that are carried out on regular or ad-hoc basis as well as the comprehensive assessment framework that evaluates all aspects of the civil registration and vital statistics systems. The presentation also invited further comments from the experts on the content of the chapter on evaluation.

126. The experts agreed that the chapter on evaluation was important and the content for the current version was still relevant. However it was pointed out that the chapter should be elaborated so that quality assurance and assessment components related to the civil registration system are also covered. The revised chapter should also take into consideration existing assessment frameworks that could provide some insight in prioritizing the improvement of civil registration and vital statistics systems.

127. Regarding criteria for data evaluation, in addition to the existing criteria – completeness, accuracy, availability and timeliness - it was recommended that international comparability to be added. Vital statistics should be comparable internationally and this is particular relevant for the measurement of achieving the Millennium Development Goals. In addition, it was noted that the importance of each criterion should be weighted differently. For example, completeness and accuracy of data should not be sacrificed to achieve timeliness.

## **M. Round table discussion – international and regional initiatives**

### ESCAP

128. A resolution was adopted by the 67<sup>th</sup> session of the ESCAP Commission in May 2011. The resolution calls upon members to (a) review and assess current status of civil registration and vital statistics systems; and (b) develop and implement comprehensive

strategies and plans to strengthen civil registration and vital statistics. The Commission also asked regional and international organizations, development partners and non-governmental organizations to support countries on their effort to improve civil registration and vital statistics systems.

129. The resolution was adopted following various efforts of ESCAP as well as member countries in (a) identifying the need for better vital statistics; (b) carrying out consultation with developmental partners; (c) conducting regional meetings and forums with the involvement of member countries and (d) initiating the assessment of national status on civil registration and vital statistics.

130. Tasks that were faced by ESCAP member countries to obtain reliable and timely vital statistics were identified. They include: (a) improving legal framework and increasing political commitment and public support; (b) strengthening national coordination and collaboration; (c) improving completeness of civil registration; (d) improving availability and quality of vital statistics and (e) increasing the use and dissemination of vital statistics. Key components of the ESCAP regional programme on civil registration and vital statistics include: (a) assessing national capacity and supporting national action plans; (b) increasing public awareness and strengthening political support; (c) strengthening national legal framework on civil registration and vital statistics and improving coordination; (d) improving availability and quality as well as increasing the use of vital statistics; and (e) furthering research and development at national level.

### ECA

131. Major components of the work of ECA on the improvement of civil registration and vital statistics include: (a) conducting rapid assessment at the regional level; (b) obtaining political commitment through the Ministerial level conference on civil registration and vital statistics, which is converted into a meeting occurring every two years; (c) building partnership with relevant entities; (d) creating a pool of experts that would be able to assist countries and (e) working with donor agencies so the same work plan is adopted.

### Eurostat

132. Eurostat is working on a demographic statistics regulation, which is the third pillar after the approval of the regulations on migration statistics and on population and housing censuses. The regulation covers statistics on population estimates and vital events. The regulation is expected to improve timeliness and comparability of vital statistics across European countries. Some drawback of the regulation is observed. For example, the regulation does not require data on marriages and divorces. In addition, the regulation adopts an output-oriented approach that allows both direct and indirect estimation methods to be used to obtain vital statistics.

### PAHO

133. The work of PAHO on the improvement of health statistics, including vital statistics, is based on a plan of action approved by the Commission comprises of Ministries of Health in the region. The plan of action include components at global level and country level. The global component refers to work of PAHO with all stakeholders at regional and international level. PAHO works closely with the Economic Commission for Latin America and the Caribbean (ECLAC), United Nations Children's Fund (UNICEF) and United Nations Population Fund (UNFPA). Additional programmes include (a) health system monitoring in 13 countries financed by United States Agency for International Development (USAID) and (b) improving maternal and infant health funded by Canadian International Development Agency (CIDA).

134. At country level, PAHO developed an assessment tool based on the Health Metrics Network (HMN) framework and the assessment covers 29 countries. Another nine countries in the region participated in the HMN assessment programme. Based on the results from the assessment, PAHO provides technical cooperation to produce national strategic plan in 12 countries.

135. PAHO also works with countries at sub-regional level such as within Mercosur, Andean Community as well as Caribbean countries.

136. A suggestion was made by PAHO to plan a side event for the Statistical Commission 2012 that presents work of various agencies on civil registration and vital statistics as well coordination mechanisms. Sharing of experiences of countries may also be included.

## WHO

137. Health Metrics Network (HMN) is a network that is under the auspices of WHO and brings together health information specialist and statisticians. Starting from this year the work of HMN will focus specifically on the improvement of statistics on vital events. A number of activities are planned to support regional activities in the area.

138. Another activity related to the work of WHO is the Commission on Information and Accountability for Women's and Children's health. Among the ten recommendations adopted by the commissioners for the global strategies for women's and children's health, the first one is Vital events: By 2015, all countries have taken significant steps to establish a system for registration of births, deaths and causes of death, and have well-functioning health information systems that combine data from facilities, administrative sources and surveys. The recommendations will be officially presented to the Secretary General this year at the General Assembly.

139. A suggestion was made by the representative from WHO on knowledge sharing. She acknowledged the work of UNSD on the civil registration and vital statistics knowledge center and encouraged agencies to link to others' work through web dissemination tools.

## AfDB

140. The representative from AfDB briefed the group on the other related activities on civil registration and vital statistics in Africa. For example, the 7<sup>th</sup> African Symposium on Statistical Development will be conducted in Cape Town, South Africa, 22 - 28 January 2012. The Symposium brings together chief statisticians from National Statistics Offices in Africa and the theme of the Symposium for the next five years will be on civil registration and vital statistics. The outcome of the Symposium will feed into the Statistical Commission for Africa.

#### **N. Improving the collection and dissemination of vital statistics through the Demographic Yearbook**

141. The presentation made by UNSD focused on the collection, compilation and dissemination of vital statistics. The aim was to provide information for discussing ways of improving the processes of UNSD on collection, compilation and dissemination of vital statistics. The presentation provided an overview of what vital statistics were collected and how they were collected through the questionnaire; the level of responses from countries to the collection of data; various sources of vital statistics such as civil registration, population censuses, sample registration and sample surveys; ways of data dissemination including the published *United Nations Demographic Yearbook* – printed and distributed online, the Population and Vital Statistics Report and the UNdata portal. The presentation also highlighted the challenges faced by UNSD in the collection and compilation of vital statistics and invited further discussion from the experts on the improvement of data collection through the *Demographic Yearbook*.

142. A representative from PAHO, as a discussant for the session, provided some recommendations on the *United Nations Demographic Yearbook* system. It was recommended that UNSD work with national statistical offices to conciliate and improve civil registration and vital statistics system at national and international level. Regarding the overall data collection and dissemination, UNSD could implement a feedback mechanism to assess the impact of the *Demographic Yearbook* data collection on national practices and the value of UNSD's data products. More effective processes for data collection, including the implementation of data exchange services and adoption of open data exchange standards such as SDMX could be used. Regarding data dissemination, it would be helpful for the users if data produced were visualized and interpreted.

### **III. CONCLUSIONS AND RECOMMENDATIONS**

#### **A. General**

143. Participants commended the timeliness of convening this expert group meeting to review the existing principles and recommendations, given the development in this field since the last revision that took place in 1999. The meeting re-iterated that such international statistical standards – understood to be gold standard - are critical tools for assessing national capacities to produce relevant, timely and accurate official statistics and for identifying the areas in need of improvement and/or development in the most effective manner; and in that regard, the principles and recommendations are as relevant today as they were at the time of their original release in 1953.

144. While recognizing that the essential principles in the current set remain valid and unchanged – only a functioning and complete civil registration can ensure regular, accurate, reliable and timely vital statistics – the participants supported the approach that the revision of the current set of principles and recommendations should focus on (a) sharpening the distinction between vital statistics and its sources, (b) elaborating on population registers, (c) re-visiting core topics, (d) addressing the role of health institutions within the vital statistics system, (e) aligning the principles and recommendations with current international classifications, and, in general, (d) updating and upgrading all the parts with contemporary approaches to producing quality official statistics. Improved consistency in reference to key concepts, that is, distinguishing civil registration from vital statistics throughout the revised principles and recommendations was also supported.

145. The revised set of principles and recommendations should open with an introductory chapter that would elaborate on the history of this international standard; address the complexity of the preparatory process; elaborate on the rationale for the revision; and outline the changes and improvements made on the current version.

146. The meeting noted that there was slow progress in many countries in improving or developing the capacity of national statistical systems to produce vital statistics since the adoption of the current set of principles and recommendations. In that respect it would be useful to elaborate in more details on this lack of progress and to present the practices in countries that achieved progress. Recognizing that the core text of principles and recommendations may not be the most appropriate vehicle for such a presentation, the meeting recommended considering the possibility of developing a companion volume to the revision that would address these topics, and that could be updated in regular intervals independently from the main text.

147. The meeting noted that the current set of principles and recommendations does not elaborate on advocacy for civil registration and vital statistics – although various advocacy tools are at length elaborated in one of the accompanying handbooks - and recommended that these items should be taken into consideration in the final preparation of the revision.

148. The current set of principles and recommendations is a combination of principles, recommendations and guidelines for civil registration system. This may lead to confusion and contradictory messages, especially given the fact that countries in the world are at very different level of development of civil registration. The revised version should be more principled in the elaboration of principles and recommendations and less prescriptive in terms of civil registration guidelines – in that respect, the original principles and recommendations from 1953 might serve as a good guidance.

## **B. On uses of vital statistics**

149. The elaboration of the use of vital statistics could benefit from being organized in a more user-friendly and less technical manner (cohort analysis, for example) and closer

to simplified and forceful structure and language, more suitable for addressing concerns of policy makers and provide guidance to data producers.

150. The elaboration of the use of vital statistics might benefit from a clear and unambiguous statement that without statistics on births and deaths it is not possible to estimate the total population of a country, province or any other civil division; and, in turn, without population estimates it is not possible to compute a majority of relevant indicators as the total population is the most common denominator for computing them. It was further stressed that for the purpose of a correct computation of total and local population and rates, the population of reference needs be the same for all vital events.

151. The meeting emphasized the importance of reliable and timely vital statistics for producing development indicators, and in this regard the section on use of vital statistics in the principles and recommendations should discuss indicators for relevant internationally agreed development goals in general and not specifically on Millennium Development Goals, which are due for final assessment in 2015 and taking into account that the lifetime of the revised principles and recommendations is certainly expected to extend well beyond 2015.

### **C. On the vital statistics system**

152. The participants enthusiastically and overwhelmingly endorsed the introduction of quality assurance as an additional principle of the vital statistics system. Quality assurance encompasses all the components and processes of the vital statistics system and elaborating on the appropriate techniques to ensure accurate and reliable statistics would significantly enhance the usefulness of the revised principles and recommendations.

153. While discussing the major principles for a vital statistics system – that is, universal coverage, continuity, confidentiality, regular dissemination and quality assurance – the meeting concluded that the revised set of principles and recommendations include a comparison of each of the sources of vital statistics and their compliance with these principles. This will show comparative advantages of each of the sources – civil registration, population register, population censuses, sample surveys, health records and so forth – thus providing an unambiguous message about the suitability of each source to meet the international standards for accurateness, reliability and timeliness of vital statistics. In the current set of principles and recommendations this assessment is missing and that may mislead national statistical authorities in assuming that each source carries the same weight.

154. Reiterating that a well functioning civil registration system is the most preferred and reliable source of vital statistics, the meeting concluded that one source alone cannot meet all the requirements of detailed and comprehensive vital statistics. There is certainly a need for surveys to complement the statistics generated from civil registration as well as for population censuses in some cases and for other sources as well. In that context, a more detailed elaboration on linking records from different sources – both deterministic and probabilistic – should be included in the text together with an extensive elaboration



on protecting confidentiality of individual records, while at the same time preventing the use of confidentiality argument for limiting access to micro-data.

155. The current definition of the vital statistics system defines it as a process of producing data on vital events, including adoption, legitimations and recognitions. It is clear that this definition is closely linked to civil registration, as the occurrence of these events can be registered solely by the civil registration. Hence, the meeting concluded that there would be a need to re-visit the definition of the vital statistics system and the list and definitions of vital events accordingly.

156. In terms of mapping the vital statistics system in a country, the principles and recommendations should strongly recommend (and include a real country situation, as an example) a diagram depicting the links between various segments and institutions that form the system and the flow of information and records that eventually lead to the production of vital statistics. Related to this interaction between various institutions within the vital statistics system it is necessary to focus not only on cooperation between them, but equally importantly on the collaboration, as it is often necessary for them to work together under a joint action-plan.

157. In terms of core topics, it was concluded that there is a need to conduct further and more detailed discussion, beyond what was already submitted as a reply to the United Nations Statistics Division concept note. This is especially true given the fact that some topics that are now considered additional gain on much more importance since the fertility and mortality patterns differ in different segments of population that are distinguished by ethnicity, for example, or poverty. Similarly, topics that are relevant for assessing migration, international as well as internal, may be considered critical enough to be considered for upgrade into core topics.

#### **D. On civil registration as a source of the vital statistics system**

158. The current version of principles and recommendations clearly underscores the importance of civil registration for the production of reliable and accurate vital statistics and the revision should follow the same rationale, by devoting a separate chapter on the characteristics, values and functioning of the civil registration. It was also underscored that civil registration is not fully functional in many countries and that, even where it functions, it may not yield reliable and accurate vital statistics due to the lack of links between the two systems. However, the meeting recommended that principles and recommendations should strive to set the highest standard of integration of civil registration and vital statistics system for countries to follow and measure up.

159. The meeting strongly recommended that the importance of civil registration in relation to the exercise of essential human rights – such as the right to be registered, to be named and to have an identity – need to be prominently elaborated.

#### **E. On population registers**

160. The meeting recognized that, while population registers may not replace the civil registration, they are becoming the source of vital statistics in a number of countries. In

that respect, it was recommended that a separate chapter be dedicated on the role of population registers in the vital statistics system; the relationship between the population registers and National Identification Registers that are emerging in a number of countries; the value of population registers for longitudinal analysis; the opportunities to produce in-depth statistical analysis by combining population and other registers; and, finally, the relationship between population registers, National Identification Registers and civil registration.

#### **F. On the role of health institutions**

161. The meeting concluded that health institutions serve multiple purposes in the process of generating reliable vital statistics. First, the widespread network of health workers and volunteers and health facilities at local areas increases the coverage and the reach of civil registration by acting as informants on vital events. Second, health institutions are also indispensable in informants for birth and in certifying causes of deaths, which is crucial for public health policy development and interventions. It is recommended that the chapter on health institutions elaborates on the above two major functions of health institutions.

162. In addition, the principles and recommendations need to elaborate more on the collection, compilation and analysis of cause of deaths statistics, focusing in particular on the certifying and coding aspects, as the current set does not provide for such an elaboration. The major focus should not be on the coding, as this is comprehensively covered by World Health Organization manuals – rather, it should focus on the role and procedure for certifying and coding of causes of death in the context of civil registration.

#### **G. On other administrative records**

163. The meeting recognized that a separate chapter should focus on other administrative data used by the vital statistics system to generate statistics. These would include court records in cases of divorces; insurance records; marriage records outside of the civil registration and so forth. It was recommended to focus on the definition of the administrative records; the explanation of the need for standardized procedures for the vital statistics system to access these records; and the need to closely collaborate with the provider institutions to automate, to the extent possible, the process of acquiring input for vital statistics.

#### **H. On population censuses and surveys**

164. The meeting noted that in a number of countries vital statistics is still generated out of population censuses and household surveys – as a result of a non-functioning or under-performing civil registration or the lack of data flow between civil registration and vital statistics system. It was outlined that both censuses and surveys have outstanding value as supplementary sources within the vital statistics system as they provide a wealth of information not accessible through the civil registration – on education, economic status, in-depth demographic and health profiles, to name a few. However, it was concluded that relying solely on censuses and surveys to produce vital statistics clearly

indicates inadequate capacity to generate accurate and relevant vital statistics and to comply with the international principles and recommendations.

### **I. On strategies to improve vital statistics system**

165. The meeting concluded that, in essence, improving vital statistics system revolves around improving, or making functional civil registration of a country, on one side, and, taking full advantage of the contemporary computing platforms and solutions on the other. The revised principles and recommendations should also recognize there are different levels of maturity of countries' civil registration systems and their developmental pathways will vary in respect to the standard as set by the principles and recommendations as the goal.

166. As for the civil registration, there is a need to address a long list of concerns that hinder its functionality, such as the inadequate geographical coverage; complicated procedure; lack of incentive to register vital events; cost of registration; and low visibility, to list a few. It was recommended that, in addition to the current recommendations, the focus should be brought to the need for political commitment to enhance civil registration; to assess current status; to prioritize costed improvement plans and monitoring and evaluation strategies; to develop monitoring and improvement plans; to institute targeted and customized programs for promotion of registration; to the need for involving all possible stakeholders, and to ensure the full provision of services to the population.

167. The meeting also noted the need to address the role of regional institutions, such as the United Nations Regional Commissions, as well as other regional and international organizations, in developing regional strategies to improve civil registration and vital statistics. It was concluded that the optimal vehicle for presenting this information would be the United Nations Statistics Division website on civil registration and vital statistics, as it provides for constant updates.

### **J. On Information Communication Technology (ICT)**

168. Closely related to the strategies for improving civil registration and vital statistics is the elaboration on the advances in the development of computing platforms and solutions for both civil registration and vital statistics. The meeting concluded that this would be one of the most critical components of progress while at the same time recommending that the elaboration of this theme takes into consideration that this development is not about tools – information technology, platform, portals and so forth – but about a new business model for both civil registration and vital statistics - including a development of data exchange protocols.

169. In that context, it was concluded that the revision should focus, among other issues, on the private-public partnership in developing these new applications for registration of vital events, data transfer, editing, harmonization and dissemination, taking full cognizance that adapting an existing information system into a contemporary one may be as complex as building one from scratch. Similarly, it would be necessary to

adapt other instruments as well, such as the accompanying laws that need to be adapted to the new – electronic – reality.

#### **K. On evaluation and quality assessment**

170. The current set of principles and recommendations' elaboration on the evaluation and quality assessment remains relevant, although somewhat dense and technical. The meeting recommended that the revision should focus on including additional mechanisms for assessing the functioning and quality of civil registration – its processes, governance and structure – in addition to techniques to assess the quality of vital statistics. The revision should also include reference to the need for a comprehensive assessment framework that would provide a holistic overview of the vital statistics and civil registration system. In terms of the general criteria for assessment, as relevant as they are, it would be beneficial to provide a degree of importance for each quality indicator, thus assigning each a specific weight – for example, is it more important to have data fast albeit of poor accuracy, or obtaining them much later but of very good quality. As for the list of general criteria, it was concluded that international comparison of data should also be included.

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**ANNEX II. Concept note on the revision of the *Principles and Recommendations for a Vital Statistics System, Revision 2, United Nations Publication, Sales No. E.01.XVII.10, New York, 2001***

The United Nations *Principles and Recommendations for a Vital Statistics System, Revision 2* was adopted by the Statistical Commission in 2001. The essential standard it promulgates - generating accurate, reliable and regular vital statistics from civil registration system - remains unchanged and valid. However, over the past 10 years several issues emerged that might require revisions and updates of the principles and recommendations, such as the increasing use of population registers as source of vital statistics. In addition, feedbacks on the principles and recommendations from countries that participated at a series of civil registration and vital statistics workshops conducted by the United Nations Statistics Division, as well as other country consultation processes point to the need to consider undertaking a review and update of the 2001 recommendations in several other components as well.

The proposed revisions are discussed below from two aspects: (1) the overall structure of the recommendations and (2) specific areas that would benefit from update and additional elaboration.

**Restructuring the current *Principles and Recommendations***

The current version of the principles and recommendations elaborates on vital statistics and civil registration in an interchangeable manner. While it is understood that civil registration is the preferred and best source of vital statistics, there should be a clear distinction between vital statistics as a set of data crucial for policy decision and population estimates and its source, the civil registration system. This is especially true given the increased use of population registers in many national statistical systems for generating vital statistics. The proposed outline for the revision is presented below, in Annex 1.

**Specific areas to be updated or elaborated**

Population register as a source of vital statistics and its linkage with the civil registration system

In a number of workshops conducted by the United Nations Statistics Division in the past ten years the issue of differentiating civil registration and population registers, as sources for vital statistics, emerged often. It was also noted that in some cases the installation and functioning of population registers is regarded as the ultimate solution and a replacement of the registration of births, deaths and other vital events, which may not be necessarily the case. More elaborated discussion is necessary to guide countries on how different types of population registers could be used to generate vital statistics as well as the limitations of using population registers for statistical purposes. Guidelines should also be provided on the use of regular-interval sample surveys to complement information obtained from population registers (such as income, for example).

### Core topics to be collected in a vital statistics system

Several core topics in the current version of the principles and recommendations, such as father's age (for live birth), mother's marital status and date of marriage were considered by some countries as non-core at workshops organized by United Nations Statistics Division in the previous decade. Therefore, it would be useful to re-visit the list of core topics and variables in terms of needs and uses of statistics. In addition, there is a need to elaborate in much more detail on the value of statistics for each core topic - for policy, demographic analysis, public-health interventions and so forth.

### Use of records from health services and other administrative sources

Health institutions records are sometimes used to generate and, much more frequently, to complement vital statistics. This is especially true in the case of causes of death, which is a crucial component of comprehensive national health statistics, as the certification of the causes of deaths is the primary responsibility of health services, not civil registration. The current principles and recommendations do not elaborate on the advantages and limitations of health services records as sources for vital statistics. Additional guidelines might be provided in regard to certifying causes-of-deaths, coding and training of medical personnel on providing information related to causes-of-death.

### Revision of classifications and definitions

Throughout the current version of principles and recommendations there is a need to adjust the international classifications that are referenced in the publication - for example, the latest revision for the classification of occupations is ISCO-08, while the ISCO-88 version is referred in the current issue. Certain definitions and classifications may have changed over the past ten years. Revision is also needed when defining certain core or non-core topics in the principles and recommendations to align these lists with the most recent guidelines on population censuses<sup>15</sup> (e.g., economic activity status). For the part on population censuses and sample surveys, the revision should use the same definitions and concepts and to make clear references to the current set of principles and recommendations for population and housing censuses<sup>16</sup>, as well as to the *Handbook on the Collection of Fertility and Mortality Data*<sup>17</sup>. However when referencing to other publications, it would be beneficial to incorporate directly the text to make the principles and recommendations more independent (stand-alone) for users.

### Glossary and Subject index

The glossary will be revised to be more comprehensive and a subject index will be added.

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<sup>15</sup> *Principles and Recommendations for Population and Housing Censuses, Revision 2*, United Nations Publication, Sales No. E.07.XVII.8, New York, 2008.

<sup>16</sup> Ibid.

<sup>17</sup> United Nations Publication, Sales No. E.03.XVII.11, New York, 2004.

**ANNEX III. A summary of the responses from the national statistical offices and international and regional organizations to the UNSD’s proposal to revise the *Principles and Recommendations for a Vital Statistics System, Revision 2***

1. On 24 March 2011 Mr. Paul Cheung, Director of the United Nations Statistics Division, in his letter to all heads of national statistical office and international and regional statistical institutions, solicited views on the need to review the current set of principles and recommendations for a vital statistics system, in terms of issues that might need to be included or further elaborated and on whether the guidelines are still relevant today. This communication was accompanied by a concept note (attached in the annex to this paper).

2. In response, thirty-five communications were received, twenty-nine from national statistical authorities<sup>18</sup> and six from regional and international institutions<sup>19</sup>

Overall comments:

3. All the replies unanimously expressed the opinion that the international standards on civil registration and vital statistics are relevant for the purposes of national official statistics. Some examples:

“ While the International Guidelines for Civil registration and Vital Statistics Systems are still relevant today, there are a few areas in our opinion where a review might serve to be useful” – Australia.

“The guidelines in the Principles and Recommendations for Civil Registration and Vital statistics are still relevant, beneficial and useful for the country as the guideline to produce quality data ...” – Malaysia.

“The existence of international guidelines continues to be of extreme importance, especially in what concerns comparability of vital statistics data, as well as their timeliness” – Portugal.

“We share the opinion that international guidelines are still relevant despite the fact there are significant differences between statistical systems of the UN countries” – Slovenia.

“The guidelines are still relevant today. But, it is needed to be revised” – Turkey.

4. With one exception, all replies expressed support for the initiative to review the principles and recommendations for vital statistics system, in light of the development in the past decade - the responses received support the proposal made by the United Nations Statistics Division. Some examples:

<sup>18</sup> Armenia, Australia, Azerbaijan, Canada, Chile, China – Hong Kong SAR, Czech Republic, Ecuador, Egypt, Hungary, Iran (Islamic Republic of), Italy, Korea (Republic of), Lithuania, Luxembourg, Malaysia, Mauritius, Mexico, Moldova, Occupied Palestinian Territory, Peru, Portugal, Seychelles, Slovenia, Switzerland, Thailand, Turkey, Ukraine, and United Kingdom

<sup>19</sup> CIS STAT, ECE, ESCAP, EUROSTAT, WIPO and WHO.

“We highly appreciate your initiative to revise the Handbook Principles and Recommendation for a Vital Statistics System, because the relevant units of the Armenian National Statistical Service very often use this handbook in practice” – Armenia.

“The ABS very strongly supports the proposed review of the *Principles and Recommendations*. Within the context of the Asia Pacific region, the proposed review is very timely” – Australia.

“While the guidelines and recommendations for civil registration and vital statistics systems should still be relevant generally in these days, we consider that there is the need of reviewing them regularly, taking into account the latest global demographic changes” - China, Hong Kong SAR.

“EUROSTAT welcomes the initiative of UNSD for reviewing the current principles and recommendations for civil registration and vital statistics” – EUROSTAT.

“Your proposal for a review of the current principles and recommendations for civil registration and vital statistics is really appreciable” – Italy.

“The revised guidelines should serve as a valuable guide for the producers of vital statistics ...” – Lithuania

“To (meet) the need for full and timely information to facilitate the knowledge of the social dynamics of the country, for analysis and decision making, (it) is essential to have guidance documents that maintain updated statistical generation process of the country, particular(ly) for the generation of vital statistics that address issues related to social, demographic and health. For that reason, it is necessary to update the document of Principles and recommendations for a vital statistics system, revision 2, approved by Statistical Commission of the United Nations, in 2001” – Mexico.

“Given the development of modern technologies and information statistical systems, as well as a lot of changes recently took place in data collection procedures in the world the State Statistics Committee of Ukraine fully supports the initiative of the United Nations Statistics Division to review existing Guidelines and Recommendations on Civil Registration and Vital Statistics Systems. We consider it will be useful for the future development and international comparability of vital statistics” – Ukraine.

### Reorganizing the structure of the principles and recommendations

5. The concept note prepared by the United Nations Statistics Division emphasized the need to distinguish between vital statistics system and its sources – while at the same time reinforcing the essential principles of civil registration as the main source. This approach was supported by most of the replies.

“The proposed amendments are appropriate in the overall structure of the recommendations, to differentiate the records that may be complementary to information obtained from civil registration” – Mexico.

“ONS agrees that it is important to distinguish between the data required (vital statistics) and the system of producing those statistics (vital registration, population registers, administrative sources). However, we think it is important to recognise the unique role that vital registration plays for the individual (e.g. in recording important life events, providing identity and accessing services)” – United Kingdom.

“We fully support the need for greater clarity in terms of the differences between civil registration and vital statistics systems and for explanation on the role of civil registration in population registers. We hope that in so doing you will also emphasize the legal benefits and human rights aspects of civil registration as was noted in the 2nd revision of the Principles” – WHO.

6. The concept note included the proposed outline of the revision of the principles and recommendations, consisting of three chapters. The first chapter was focusing on definition, concepts and use of vital statistics; the second on the vital statistics system; and the third on sources of vital statistics. A number of replies suggested that there are important issues that run across different topics, such as computerization and the use of information technologies. There were also comments related to a somewhat obsolete approach to the presentation – for example: “The proposed outline covers most of the topics but is quite traditional in approach” – WHO.

7. In consequence, in the final preparation of the outline for the consideration by the Expert Group Meeting on International Standards for Civil Registration and Vital Statistics<sup>20</sup>, the outline was revised to reflect the received suggestions. It now consists of three parts and eleven chapters. The first part elaborates on the vital statistics system, including the definition and uses of vital statistics. The second part, in six chapters, focuses on sources of vital statistics. The third part, in three chapters, presents key elements of the vital statistics system – computerization, quality control and strategies for improving.

#### Importance of civil registration

8. All replies outline the need to clearly and unambiguously identify civil registration as the essential component not only of the vital statistics system, but of the much broader set of constructs that are critical for the wellbeing of the population.

“Inclusion of an introductory section which would reaffirm the importance of civil registration and vital statistics systems, perhaps setting the scene regarding the difference but inter-relationship between the two, as well as capturing the heightened understanding within the global community of the importance of vital statistics and the key steps that have taken across the past ten years to improve CRS and the quality of vital statistics. Recognizing, up front, that establishment of a civil registration system may take time ...” – Australia.

“I believe that CRS should be the subject of a separate and first section regarding sources of vital statistics. A separate (and subsequent) chapter could then provide guidelines in relation to the definitions of, and advantages and disadvantages in using other sources of information e.g. population registers, health services, other administrative data and population censuses and surveys. I believe the revised principles and recommendations should emphasise the strong comparative advantages of establishment of a robust CRS in order to produce quality vital statistics” – Australia.

“Highlight the importance of vital statistics resulting from the Civil Register, because its continuous character constitutes a dynamic vision of the population, and its use provides constant knowledge about the demographic evolution in a year to year basis” – Peru.

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<sup>20</sup> Scheduled for 27-30 June 2011, in New York.

“However, we think it is important to recognise the unique role that vital registration plays for the individual (e.g. in recording important life events, providing identity and accessing services)” – United Kingdom.

“We fully support the need for greater clarity in terms of the differences between civil registration and vital statistics systems and for explanation on the role of civil registration in population registers. We hope that in so doing you will also emphasize the legal benefits and human rights aspects of civil registration as was noted in the 2nd revision of the Principles” – WHO.

### Population registers

9. Most of the respondents agreed that the section on population registers for the purpose of vital statistics needs to be elaborated. The revision needs to discuss (1) the advantages and limitations of using population register for vital statistics; (2) the role of civil registration within a population register; (3) collaboration mechanisms among different institutions involved in the registration process and the data users; and (4) data transfer protocols between population register and statistical agency.

“It is very important for Armenia to find in the Handbook the clarifications and assignments on the issues related to the formation of interconnected system of population register and the civil status registration” – Armenia.

“Given the strong level of interest amongst some countries in the establishment of population registries, any revision to the *Principles and Recommendations* should clearly outline the strengths and weaknesses/limitations of such registries particularly in terms of delivering quality vital statistics” – Australia.

“The discussion on Population registers in Chapter III of the proposed outline needs to show how such systems with unique / biometric identifiers need to be set up in such a way so as to avoid duplication of and/or distraction from the development of proper CR systems. The statistical and administrative potential of such registers has to be explained as well as the pitfalls and problems that can result if not carefully built and managed” – ESCAP.

“As the attention is progressively moving towards combined register-based sources, issues related to linking/matching may be further explored, taking also into account the latest methodological and technical developments” – EUROSTAT.

“Utilizing the population register for vital statistics increases accuracy by comparing data with the civil registration and is useful for extending the coverage of analysis” – Republic of Korea.

“We support the idea of giving more importance to the register-based vital statistics and better cooperation with data providers in countries” – Slovenia.

“We also note that the current document refers in detail to the population registers. ONS is increasingly interested in the use of administrative data sources as a means of monitoring the population. We have established a project to look at the development of alternatives to the traditional census” – United Kingdom.

### Quality assurance

The replies noted that a specific focus in reviewing principles and recommendations is placed on quality control and assurances, and such approach is strongly supported.

Quality control here transcends all the components of the vital statistics system and is, therefore, included as one of the essential principles of that system.

“(There is the need for) Presenting methods for evaluating the validity of registers” – Iran, Islamic Republic of.

“Recommend that the evaluation of vital statistics must be part of each country's system. Countries must conduct deep studies relative to coverage problems, sub register, according to the administrative and political division” – Peru.

“Establish the procedures to be used in order to improve the quality of vital statistics, with a special focus in births with low weight, and the statistics related to the mother and child health” - Peru.

“Another important additional element would be methods and tools for data quality review and assessment, a section that received some attention in the 2nd revision of the Principles” - WHO.

### Review of core topics

In general, all replies support re-visiting the core topics for a vital statistics system. Summarizing the opinions, they range from the need to enlarge the list of core topics – for example, with variables to monitor maternal health and pregnancy outcomes or expanding the variable of marital status to accommodate people who are in civil partnerships – to noting that quite a few of the core topics in the current set of recommendations are not used because of the low response rate.

“I support the re-visiting of the core topics to be collected in a vital statistics system - the recent workshop in Bangkok raised the potential value of some additional variables being captured, particularly in order to improve countries' understanding of maternal health during pregnancy and infant mortality. However, the (budget implications) of any such expansion of the information to be captured would also need to be considered, with compelling arguments required to support the value and feasibility of such expansion” – Australia.

“Second, an examination of the strengths and weaknesses of acquiring additional information, such as a mother's education level at birth, to enhance vital statistics” – Canada.

“Regarding to what is pointed out, the rate of some variables, such as the age of the father, the marital status of the mother and the wedding date as non-core variables, we should consider that although some countries have analyzed and solved that these are not meaningful variables, many aspects covered by this tabular information, as well as others, would lose data sequence produced by the researchers and other users who would find that their research studies were reduced by the omission of these variables” – Chile.

“Así mismo, dentro de un proceso de evaluación y en consideración a la calidad de información resultante, que posiblemente por efectos de cultura estadística de la población y por el mismo procedimiento de recolección y/o llenado de los formularios, para el caso de algunas variables que son parte de las recomendaciones, han sido retiradas de los contenidos, ya que las proporciones altas de no respuesta no permiten disponer de información de precisión, por ejemplo de preguntas que se inquieren sobre la actividad económica de los entes que generan un hecho vital” – Ecuador. In essence, some core variables have very low response rate and are not included in the national data collection.

“Recently, parents; (especially mother’s) involvement in economic activities and their nationalities have been proven to be an important factor which affects the number of births” – Korea, Republic of.

“The variable “SEX” needs to be collected in a direct topic for marriages & divorces form/list. This is to help in the compilation of statistics on ‘mono-sex marriages’ in view of the new phenomena that ‘mono-sex marriages’ have become legal in a few countries” – Malaysia.

“The basic issues presented in the vital statistics, need to be analyzed to see if updates have been, for example, in the case of Mexico, as are marriages between same sex, which impacts the definition of marriage as in the document of principles and recommendations 2001” – Mexico.

“We agree the need to revisit the information that might be considered core. The concept note refers to marital status and should be widened to include civil partnership status and de facto household relationships. One assumes that demographic analysis covers family and household analysis but this is an important area and perhaps should be specifically mentioned” – United Kingdom.

### Computerization

The discussion on computerization not only applies to civil registration procedures but also to all aspects of civil registration and vital statistics systems. Therefore, the chapter on computerization should be independent from any particular data source. The discussion needs to cover the risks and benefits in taking advantage of new technologies to improve civil registration and vital statistics.

“We hope that the section on Computerization in the proposed outline will take a broad view of all relevant IT and data management issues. This includes a discussion of advances in technology over the last couple of years that have made electronic registration through new technologies such as mobile phones, PDAs and scanning of registration forms a reality. The section should also discuss data management issues such as the documentation, archiving, storage, exchange, protection and security of data, as well as the insurance of privacy and confidentiality. In this context, references should be made to the relevant international standards, guidelines and tools (DDI, SDMX, etc.)” – ESCAP.

“The main directions in improvement of vital statistics in our country are built on the basis of use the data from the State Population Register. In modern conditions in realization of the objective of perfection of the system of civil registration and vital statistics the significant place is allocated to introduction of new technologies, perfection of system of reception and data processing about demographic events on the basis of automation of interdepartmental information interaction” – Moldova.

### The role of health institutions – cause of death statistics

It was recognized by most of the respondents that health institutions played an important role in notifying births and deaths, and moreover, in certifying causes of deaths. Therefore it is plausible to provide guidelines in the revision on certifying causes-of-deaths, coding and training of medical personnel on providing information related to causes-of-death, as proposed in the concept note.



"It is important to see in the Handbook the guideline for the health care organizations on the issues related to the registration of causes of deaths" – Armenia.

"(The revision should include) the development of training guidelines for certifying and coding cause of death" – Canada.

"The use of records from health services and other administrative sources to the largest possible extent - mentioned among areas to be updated – can be a useful source for the completion of vital statistics, especially in case of data on causes of deaths. The primary data providers of Hungarian statistics on causes of deaths are health institutions. We support the recommendation that development concepts affecting medical personnel responsible for data on causes of deaths should be included in additional guidelines" – Hungary.

"The limitations identified in the certification of causes of death, mentioned the need for training medical personnel, especially in the cause of death, in the case of Mexico, there are problems of illegibility and certification, specifically when scoring the order of the disease, so are very important guidelines that arise in this regard" – Mexico.

"Highlight the importance of the entire death registry, which is very useful for the creation of infant mortality, childhood mortality, adult mortality and maternal mortality; also the civil register system is the best source of information related to vital events with application to demographic and epidemiological effects" – Peru.

"Verbal autopsy is also very important for certifying the cause of death outside health institutions. Therefore, this issue should be included in this guideline, as well" – Turkey.

"The cause of death which is not civil registration is a crucial component of national health statistics and also included in vital statistics. Because of this, absolutely, guidelines should include detailed information on causes of death as certifying cause of death, coding and training of doctors etc" – Turkey.

"The concept note also mentions 'providing additional guidance with regard to certifying causes of death, coding and training of those who certify cause of death' and ONS would support this to improve the quality of information recorded on the death certificate. In the UK health institution records are used to complement both death and birth registration. There maybe merit in the guidelines including references to linking registration data with data from health sources" – United Kingdom.

"We are glad that you raise the issue of the role of the health sector in civil registration, both in relation to cause of death certification and coding, but also with regard to the role of health institutions and health workers in the declaration of births and deaths and communicating with individuals and families regarding the importance of registration. We propose that a section on this issue be introduced, and that at the same time the potential roles and responsibilities of other sectors in registration and vital statistics (for example, education, labour market police, justice, insurance, etc) be explored. We would also propose cross referencing to the WHO standards for cause of death certification and coding which complement those developed by the UN for registration of vital events" – WHO.

### Coordination mechanisms

Many respondents highlighted the importance of coordination mechanisms in successfully running the civil registration and vital statistics systems. Proposals from the respondents included that the revision should reaffirm the importance of collaboration

between key institutions. The revision should also point out the benefits of creating an inter-agency committee to overseeing the operation of civil registration and vital statistics. The coordination among key institutions also benefits from establishing a clear delineation of responsibilities of various institutions in the legal framework for the vital statistics system. In addition, common concepts and definitions across all data sources should be emphasized in the revision.

“A key learning from the March 2011 workshop on improving CRS in the Asia Pacific, was the value of but the challenges in stronger collaboration between key institutions involved in civil registration processes - most notably, Offices of the Registrar General, Ministries of Health and National Statistical Organisations. It would be helpful if the revised *Principles and Recommendations* included a section that re-affirmed the importance of and best practice in such collaboration in order to deliver quality and timely vital statistics” – Australia.

“In each country, in addition to the statistical offices, it would be essential to consider the contribution of other bodies with responsibilities in the field of vital statistics to the discussion and consultation process. In Portugal, “Instituto dos Registos e Notariado” from the Ministry of Justice (the body responsible for civil registration) and the Ministry of Health (the body responsible for the Death Certificates) should be consulted” - Portugal

“Point out the need for the creation of a permanent Committee or an Inter agency Commission for the management of vital statistics management, as an advisory body, with the purpose of strengthening the Civil Registration System and Vital Statistics. It should be established by public institutions responsible for the output of vital statistics, register of vital events and data users” - Peru.

### Other issues

The replies received from countries raised also a number of other issues that are summarized below.

#### *Advocacy*

The revision could emphasize the importance of advocacy at regional and national level to help countries and make cases to national and international partners and mobilizing the resources required to strengthen the system. Some text on community mobilization and incentives for registration could be added in the revision. It would also be of value to address costing and capacity-building for civil registration and vital statistics (WHO).

#### *Working with other partners for the revision*

There was suggestion on UNSD working with other relevant agencies, i.e., Eurostat, taking into consideration of existing framework such as the European Community Regulation on Demography. A task force could be created to work on the revision, with the participation of relevant agencies, national statistical offices and administrative bodies that are in charge of the registration process in countries (Portugal).

#### *Methods for population estimates*

A number of respondents raised the issue of including an elaboration of statistical and demographic techniques and methods for generating population estimates and projections from vital statistics.

“From our point of view more important issue is the preparation of a short manual where, along with the methodology of calculation of the relative indicators of Vital Statistics, would be reflected the international approaches to the recalculations of these indices in retrospect in connection with the specification of the population for all years of the inter-census period” – CIS STAT.

“A separate chapter on methods should be added, which would treat in particular techniques for estimation of vital rates and ratios” – Switzerland.

#### *Date of occurrence*

“The question of the date of occurrence versus the date of registration should receive particular attention, and recommendations and guidelines should be developed on this subject, especially since the recommended basis for the time reference of all vital statistics is the date of occurrence, what is also the case at Eurostat. The question of the late registration of events (which can stretch over several years) should be addressed: how should countries deal with these cases?” – Switzerland.

#### *Revision of definitions, classifications and glossary*

Revision of definitions, classifications and glossary is echoed by many of the respondents (Armenia, Chile, Korea, Republic of, Mexico, Peru).

## **ANNEX IV. Complete proposed outline for the revised *Principles and Recommendations***

### **PART ONE. THE VITAL STATISTICS SYSTEM**

#### **Chapter 1. Definition, concepts and use of vital statistics**

- A. Definition of vital statistics
- B. Recommended definitions of each vital event for statistical purposes
- C. Uses of vital statistics (in general, more specific uses are elaborated under core topics)

#### **Chapter 2. The vital statistics system**

- A. Definition of vital statistics system and sources of data
- B. Priority in data collection
- C. Principles for the collection and compilation of vital statistics
  - Universal coverage
  - Continuity
  - Confidentiality
  - Regular dissemination
  - Quality control
- D. Designation of responsibilities, organizational structures of a national vital statistics system
- E. Integration and coordination in the vital statistics system
- F. Core topics to be collected in a vital statistics system – output oriented approach. Definitions, classifications, uses of and sources that can be used to collecting such data.
- G. Operational principles for compiling and processing of vital statistics
- H. Presentation of results and data dissemination (including the recommended tabulations presented in the annex)

### **PART TWO. SOURCES OF VITAL STATISTICS**

**Chapter 1. Sources of vital statistics** – a mapping chapter that links the required core data versus data sources

#### **Chapter 2. Civil registration system**

- A. Definition of civil registration
- B. Role of civil registration
- C. Characteristics of civil registration
  - Compulsory nature
  - Universal coverage
  - Continuity and permanence
  - Confidentiality
- D. The civil registration process
- E. Limitations of civil registration

**Chapter 3. Population registers**

- A. Definition
- B. Links to the civil registration system
- C. Advantages and limitations

**Chapter 4. Health services records**

- A. Definition and concepts
- B. Advantages and limitations
- C. Compilation of cause of deaths statistics

**Chapter 5. Other administrative records**

- A. Concepts and definitions
- B. Court records
- C. Religious establishment records

**Chapter 6. Population censuses and surveys**

- A. Population censuses – core topics
- B. Household sample surveys

**PART THREE. KEY ELEMENTS OF THE VITAL STATISTICS SYSTEM**

**Chapter 1. Computerization**

**Chapter 2. Evaluating the quality of vital statistics**

**Chapter 3. Strategies for improving vital statistics systems**

**Glossary**

**Index**

## ANNEX V. Organization of work

Monday, 27 June 2011

**Registration of participants (9:00 – 10:00)**

**Morning session (10:00 – 13:00)**

**10:00 – 10:30**

**Opening**

Opening statement - *Paul Cheung, Director, United Nations Statistics Division*  
Selection of Chair and Rapporteur  
Administrative matters

**10:30 – 13:00**

**1-1. Reviewing international standards on civil registration and vital statistics – overall discussion on the needs for revision and on the proposed table of contents**

The session discusses in general the needs for a review of the Principles and Recommendations for a Vital Statistics System, Rev. 2; and areas that need to be revised, updated or further elaborated. The session will also review the proposed table of content for the new revision of the Principles and Recommendations.

**Presentation:**

- *Revising Current International Standards on Civil Registration and Vital Statistics: Proposed Outline*, United Nations Statistics Division (ESA/STAT/AC.233/1)

**Discussants:**

- Ghana
- India

**General discussion**

**1-2. Definition and use of vital statistics**

The session covers the Chapter 1 of the newly proposed structure for the revision. The discussion includes definition of vital statistics, uses of vital statistics and potential users of vital statistics at national, sub-national and local level.

**Presentation:**

- *Proposals for Principles and Recommendations for a Vital Statistics System, Rev. 3 - Chapter I: Definition and Uses of Vital Statistics*, United Nations Statistics Division (ESA/STAT/AC.233/2)
- *The uses of vital statistics in the work of the United Nations Population Division*, United Nations Population Division (ESA/STAT/AC.233/23)

**Discussants:**

- Jamaica
- PAHO

**General discussion**

**Lunch break (13:00 – 14:30)**

**Afternoon session (14:30 – 17:30)**

## **1-2. Definition and use of vital statistics (continued)**

### **1-3. The vital statistics system**

The session reviews the definition of a vital statistics system and four principles for the collection and compilation of vital statistics – universal coverage, continuity, confidentiality and regular dissemination. Core topics to be collected (or core data output to be produced) in a vital statistics system will also be discussed. The session also covers principles for compiling and processing of vital statistics as well as those for data dissemination. Participants will be asked to focus on further elaborations that are necessary to be included in the revision.

#### **Presentation:**

- *Proposals for Principles and Recommendations for a Vital Statistics System, Rev. 3 - Chapter II: the Vital Statistics System*, United Nations Statistics Division (ESA/STAT/AC.233/3)

#### **Discussants:**

- Thailand
- United Kingdom

#### **General discussion**

**Reception (17:30 – 18:30)**

**Tuesday, 28 June 2011**

**Morning session (10:00 – 13:00)**

### **1-4. Sources of vital statistics**

Civil registration system, population register, population censuses and surveys as well as other administrative records are all possible sources of vital statistics. The session discusses advantages and disadvantages of each data source in terms of type of information provided, whether able to meet the data requirements identified in the last session, timeliness of data, coverage, accuracy and etc. The session will also cover how multiple sources can be integrated to generate reliable vital statistics.

#### **Presentations:**

- *Sources of Vital Statistics in Ethiopia*, Ethiopia (ESA/STAT/AC.233/4)
- *Sources of Vital Statistics, Mexico* (ESA/STAT/AC.233/5)

#### **Discussants:**

- WHO

#### **General discussion**

### **1-5. Civil registration system**

The civil registration process covers registering, preparing and storing vital registration record, indexing and releasing of records, adding and amending records, issuing certified copies, recording and reporting registration data for statistical purposes. The session discusses recent developments in civil registration process and their impact on international standards. Any areas that need to be elaborated in the corresponding chapter will also be covered.

#### **Presentations:**

- *The Civil Registration System in Ghana*, Ghana (ESA/STAT/AC.233/6)
- *Civil Registration System*, AfDB and ECA (ESA/STAT/AC.233/7)

#### **Discussant:**

- Australia

#### **General discussion**

**Lunch break (13:00 – 14:30)**

**Afternoon session (14:30 – 17:30)**

#### **1-6. Population register as source of vital statistics**

In a number of workshops conducted by the United Nations Statistics Division in the past ten years the issue of differentiating civil registration and population registers, as sources for vital statistics, emerged often. It was also noted that in some cases the installation and functioning of population registers is regarded as the ultimate solution and a replacement of the registration of births, deaths and other vital events, which may not be necessarily the case. The session covers information on elaboration in the manual regarding how different types of population registers could be used to generate vital statistics as well as the limitations of using population registers for statistical purposes. Discussion will also cover guidelines to be provided on the use of regular-interval sample surveys to complement information obtained from population registers.

##### **Presentations:**

- *The Population Register as a source of Vital Statistics*, United Kingdom (ESA/STAT/AC.233/9)

##### **Discussant:**

- Germany
- ECA

##### **General discussion**

#### **1-7. Use of health services records for vital statistics**

Health institutions records are sometimes used to generate and, much more frequently, to complement vital statistics. This is especially true in the case of causes of death, which is a crucial component of comprehensive national health statistics, as the certification of the causes of deaths is the primary responsibility of health services. The current principles and recommendations do not elaborate on the advantages and limitations of health services records as sources for vital statistics. Additional guidelines might be provided in regard to certifying causes-of-deaths, coding and training of medical personnel on providing information related to causes-of-death, as well as integrating the health service system into the civil registration system in a country.

##### **Presentations:**

- *Using health care service administrative data to improve national vital statistics: Thailand experiences*, Thailand (ESA/STAT/AC.233/10)
- *The Contribution of the Health Sector to Civil Registration and Vital statistics Systems: Uses of Records from Health Services*, WHO (ESA/STAT/AC.233/11)

##### **Discussant:**

- United States

##### **General discussion**

**Wednesday, 29 June 2011**

**Morning session (10:00 – 13:00)**

#### **1-8. Other administrative records for vital statistics**

Besides population register and health records, other administrative records might be used as a source for vital statistics. The session discusses country practices in using the other administrative records such as court, insurance, police, labour department and education department to generate vital statistics, including the coordination mechanisms established between agencies, quality of data, advantage and limitations of using this source.



**Presentations:**

- *Other Administrative Records for Vital Statistics - the Indian Experience*, India (ESA/STAT/AC.233/12)
- *Other Administrative Records for Vital Statistics - The Jamaican Experience*, Jamaica (ESA/STAT/AC.233/13)

**Discussant:**

- Oman
- ESCAP

**General discussion****1-9. Population censuses and sample surveys**

In countries where civil registration is lacking, deficient or insufficiently reliable, population censuses, household and demographic sample surveys, sample registration areas can be used to gather information on the incidence of vital events and to estimate or calculate vital rates. Where civil registration is well established and maintained, these other sources of demographic data are useful for providing independent estimates of demographic parameters which can be used to evaluate the level of completeness of civil registration and vital statistics, and are also useful as complementary sources of demographic and health data. The session discusses how censuses and surveys can be used for vital statistics, how they meet the core vital statistics requirement and how they can complement register-based statistics.

**Presentations:**

- *Population Censuses and Surveys*, Hungary (ESA/STAT/AC.233/14)
- *Because Everyone Counts, everyone should be counted—Elusive Population, Gender-based Violence, and Maternal Death, “Counting those who should be counted”*, Oman (ESA/STAT/AC.233/8)
- *Use of population censuses and household sample surveys for vital statistics in South Africa*, South Africa (ESA/STAT/AC.233/15)

**Discussant:**

- China

**General discussion****Lunch break (13:00 – 14:30)****Afternoon session (14:30 – 17:30)****1-10. Strategies for improving civil registration and vital statistics systems**

Various strategies in improving civil registration and vital statistics systems are included including in the current Principles and Recommendations. They include: (1) periodic training of staff and others involved with civil registration and vital statistics systems; (2) outreach and communications with government officials, professional groups and the general public; (3) continuous performance monitoring and (4) maximum use of current and new information technologies as they pertain to the operation of the systems. The session discusses those strategies as well as new activities that were taken by the Government in recent years that have proven to be effective in improving the civil registration and vital statistics systems.

**Presentations:**

- *Strategies for Improving Civil Registration and Vital Statistics Systems: The Canadian Experience*, Canada (ESA/STAT/AC.233/16)
- *Strategies for Improvement of Civil Registration and Vital Statistics*, ECA (ESA/STAT/AC.233/17)

**Discussants:**

- Australia
- Ethiopia

**General discussion**

**1-11. Computerization**

The development of technologies in the past decades has brought in many possibilities in facilitating the operation within the civil registration and vital statistics systems. New technologies were used in countries in registration of vital events, data management, archiving, data storage, data transfer and exchange as well as protection of privacy and data confidentiality. The session explores the success stories of computerization in various countries and discusses the risks and benefits in taking advantage of new technologies in civil registration and vital statistics systems.

**Presentation:**

- *How Can Vital Statistics Remain Vital for Measuring Health Status in the U.S.?*, United States (ESA/STAT/AC.233/18)

**Discussants:**

- Canada
- Mexico
- ECA

**General discussion**

**Thursday, 30 June 2011**

**Morning session (10:00 – 13:00)**

**1-12. Evaluating the quality of civil registration information and register-based vital statistics**

Both direct and indirect methods can be used to evaluate the quality of civil registration information and derived vital statistics, in terms of completeness, accuracy, availability and timeliness. The session discusses methods used in countries for evaluation purposes and pre-conditions to use different method or a combination of methods.

**Presentations:**

- *Evaluating the quality of vital statistics: paper for discussion*, Australia (ESA/STAT/AC.233/19)
- *The Vital Statistics System in China*, China (ESA/STAT/AC.233/20)

**Discussants:**

- UNSD

**General discussion**

**2. Round table discussion – international and regional initiatives**

The session offers a platform for countries, United Nations Regional Commissions as well as regional and international organizations to share recent initiatives that have been taken to improve civil registration and vital statistics systems at national level.

**Background document:**

- *Towards a regional programme for the improvement of civil registration and vital statistics in Asia and the Pacific*, ESCAP (ESA/STAT/AC.233/22)

**Lunch break (13:00 – 14:30)**

**Afternoon session (14:30 – 17:30)**

### **3. Improving the collection and dissemination of vital statistics through the *Demographic Yearbook***

The United Nations collects vital statistics annually from national statistical offices through the *United Nations Demographic Yearbook Vital Statistics Questionnaire*. There are currently 35 tabulations on the questionnaire, covering live births, deaths, infant deaths, foetal deaths, life tables, marriages, divorces and abortions. The session will review the questionnaire for relevance and adequacy and discuss data dissemination channels.

#### **Presentations:**

- *Collection, compilation and dissemination of official vital statistics at the international level*, United Nations Statistics Division (ESA/STAT/AC.233/21)

#### **Discussants:**

- Hungary
- PAHO

#### **General discussion**

### **4. Conclusions and recommendations; adoption of the outline for the *Principles and Recommendations for a Vital Statistics System, Rev. 3***

#### **Closing**