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REPORT OF THE WORKSHOP ON IMPROVING FERTILITY, MORTALITY AND DISABILITY STATISTICS IN AFRICA[1]

ACCRA, GHANA, 14 – 18 June 2004

[1] For more information on the United Nations programme on vital statistics: http://unstats.un.org/unsd/demographic/vital_statistics/index.htm

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A. INTRODUCTION

1. The Workshop on Improving fertility, mortality and disability statistics in Africa was held in Accra from 14 to 18 June 2004. It was organised jointly by the United Nations Statistics Division, the Ghana Statistical Service and the Regional Institute for Population Studies. It was hosted by the Ghana Statistical Service.

2. The major purposes of the workshop were to: (a) examine the sources and availability of fertility and mortality statistics in participating countries, (b) promote and encourage African countries to exploit data obtained from civil registration for fertility and mortality statistics and maximise the use of multiple data sources, (c) improve disability statistics in the region by reviewing national approaches to the collection of disability statistics, and (d) assess ways to strengthen national capabilities to produce, disseminate and use the data on disability for policy development and implementation. The rationale behind the first two purposes is that in most Sub-Saharan African countries, civil registration is not used as a source of vital statistics mainly due to the low level of registration coverage. Alternative data sources such as population censuses and sample surveys are then used to obtain these statistics. As for disability as a phenomenon in Sub-Saharan African countries, aside from it being linked to ageing of the population, as is the case in other regions, it is multiplied by particular causes in the region, such as the spread of HIV/AIDS, natural disasters and armed conflicts. In that context, the availability of reliable and accurate statistics on disability becomes oven more important.

3. Finally, the workshop aimed at assessing the capacity of countries to disseminate fertility, mortality and disability statistics at both national and international levels. The reporting of these statistics by the participating national statistical offices to the United Nations *Demographic Yearbook* system was use to that end.

4. The specific objectives of the workshop:

a. Review national experience in the production of fertility, mortality and disability statistics
b. Assess major techniques used for estimating fertility and mortality statistics, and the required data sources
c. Consider major problems encountered in the collection and compilation of fertility, mortality and disability statistics and implications in the dissemination of consistent estimates at national and international level, with particular reference to the *Demographic Yearbook* system
d. Identify good practices that countries might follow to: (a) collect data, (b) calculate fertility, mortality and disability statistics, and (c) evaluate their quality
e. Identify strategies for improving the use and quality of fertility and mortality statistics obtained from civil registration
f. Build a network of experts to exchange information on good practices and provide mutual support in the development of fertility, mortality and disability statistics.

5. This report summarises and documents countries' experiences in the collection, calculation and dissemination of fertility, mortality and disability statistics and it highlights the major conclusions and recommendations for the improvement of fertility, mortality and disability statistics in the region.

B. PARTICIPATION

6. Twenty statisticians/demographers responsible for the compilation of fertility, mortality and disability statistics in their National Statistical Institutes from 14 African countries participated in the workshop as well as 8 participants from regional and international organisations. In addition, in aiming at improving South-to-South partnership, a participant from Belize was invited to share the experience of this country, as a representative of the Caribbean region. The following countries were represented: Ethiopia, Ghana, Kenya, Lesotho, Malawi, Mauritius, Namibia, Nigeria, Sierra Leone, South Africa, Swaziland, Uganda, Zambia and Zimbabwe.

7. The following organisations and institutions were represented as well: UNICEF, Regional Institute for Population Studies (RIPS), Union for African Population studies and University of Pennsylvania.

8. The list of participants is given in Annex II.

C. ACCOUNT OF PROCEEDINGS

Opening statement

9. Professor K. Asenso-Okyere, Vice-Chairman, University of Ghana, accepted to chair the opening. In his introduction he stressed the importance of reliable statistics for planning, monitoring and evaluating purposes. The formulation of many policies, projects and programmes are often wrongly conceived because of the paucity of the data. Good policies, projects and programmes have failed because of the inadequate monitoring and evaluation. In this context he expressed his pleasure that the workshop was taking place in Africa as there is frustrating lack of statistics on fertility, mortality and disability of good quality to monitor development and population growth. The region has been affected by high fertility and high mortality that have slowed heavily the level of development. In addition, not enough attention has been given to disability in terms of policies and planning. Often, poverty reduction strategies fail because they don't consider discrimination and exclusion. Concluding he wished that the workshop would lead to an improvement of fertility, mortality and disability statistics.

10. Mr. Nii-Noi Ashong, the Ghana Minister of State for Finance and Planning, delivered a key-note address and welcomed the participants to the workshop, highlighting the importance of the workshop topics for governments in Africa. For example, the high fertility in Ghana is reflected in high percentage of population under 15, with an increase of the child dependency

ratio. This results in high unemployment, rural-urban migration leading to the increase of slums and to slower pace of investments. At the same time child mortality is increasing; thus, the need to increase the health support. However, the exact scope of these phenomena is not available, mainly because of lack of reliable statistics.

11. Surveys and censuses conducted in the last decades provided some knowledge of levels, trends and differentials of fertility and infant and child mortality and the government was grateful for the assistance of donor agencies that have contributed not only to improvements in mortality and fertility but also to the economic development. Unfortunately the same level of attention was not given to disability statistics yet. Despite the statistics gathered by censuses and surveys, the lack of timely and recurrent numerical information impedes the development of appropriate policies.

12. For example, the importance of civil registration systems for the collection of data on fertility and mortality statistics cannot be overemphasized and therefore more resources should be allocated towards the development of this system. In conclusion, the participants are expected to exchange the knowledge on improving the fertility, mortality and disability statistics in African region and to agree on recommendations that would be used for future planning.

13. The Government Statistician of Ghana Ms. Grace Bediako addressed the participants to the workshop. She expressed appreciation to the United Nations Statistics Division for organising it and for inviting the Ghana Statistical Service and the Regional Institute for Population Studies to host it; to the Government of Ghana for the priority placed on statistical development and capacity building and to the Regional Institute for Population Studies for collaborating in the workshop and for providing a substantive input. In conclusion, the workshop is anticipated to come up with recommendations that would serve as a good basis for developing vital and disability statistics.

14. The resident representative of the United Nations Fund for the Population (UNFPA) Ghana Mr. Mukasa stressed the appropriateness of the timing of the workshop. There is a need for good quality data as the range of needs for the statistics is increasing. Millennium development indicators as well as other indicators of development need to have accurate input in order to be calculated. In addition, there is a clear need and struggling to obtain accurate figures on child and adult mortality and on fertility that would be used for planning poverty reduction, gender oriented policies, AIDS/HIV interventions, and environmental sustainability.

15. The representative of the United Nations Statistics Division (UNSD) Mr. Srdjan Mrkic, stressed the importance of monitoring and quantifying population movements and characteristics in order to be able to have an effective decision making at government level. The ultimate goal of statisticians should be to provide accurate, reliable, universal and timely statistics. This workshop would provide a framework and environment for assessing specific statistical techniques and methods for collecting and processing statistics on fertility, mortality and disability; identifying strategies for improving collection, processing and use of these statistics and exchanging experiences, good practices and challenges. In concluding, he welcomed the

participants to the workshop and thanked Ghana Statistical Services for the hospitality and wished them success in their future activities.

Logistic and purpose of the meeting

16. A representative of UNSD[2] summarised at the beginning of the meeting the purpose of the workshop. As people are born, live their lives, face declining functioning and die the society as a whole needs to get a full grasp of these phenomena to ensure that adequate instruments are developed at the level of a nation to enhance living conditions. In that context, fertility, disability and mortality statistics represent a crucial input in the decision making process and for monitoring the scope and characteristics of these phenomena.

17. It is the fact that in most Sub-Saharan African countries civil registration is not used as a source of vital statistics mainly due to the low level of registration coverage. Sources such as population censuses and sample surveys are then used to obtain these statistics. The workshop needs to review in detail procedures to obtain fertility and mortality statistics by maximising the use of multiple data sources: population censuses, sample surveys and incomplete civil registration. Strategies for improving civil registration in the region would also be discussed and a plan of action in the medium and long term identified.

18. Reliable statistics are also needed to monitor the realisation of full participation of persons with disabilities in social life and development, at both national and international level. The workshop would discuss data collection on human functioning and disability; its methods, concepts and national practices.

19. In addition, collection and dissemination of fertility, mortality and disability statistics at the international level would be addressed through the presentation and discussion on the *Demographic Yearbook* system.

20. The following publications were given to participants as basic material for the workshop:

1. Principles and Recommendations for a Vital Statistics System Revision 2
Series: M, No.19/Rev.2
Sales number: 01.XVII.10
Available for download at:
http://unstats.un.org/unsd/demographic/vital_statistics/publications.htm

2 Handbook on Civil Registration and Vital Statistics System -- Developing Information, Education and Communication

Series: F, No.69
Sales number: 98.XVII.4
Available for download at:
http://unstats.un.org/unsd/demographic/vital_statistics/publications.htm

[2] Mr. Srdjan Mrkic, acting Chief of the Demographic Statistics Section.

3. Handbook on Civil Registration and Vital Statistics Systems: Preparation of a Legal Framework

Series: F, No.71
Sales number: 98.XVII.7
Available for download at:
http://unstats.un.org/unsd/demographic/vital_statistics/publications.htm

4. Handbook on Civil Registration and Vital Statistics Systems: Management, Operation and Maintenance

Series: F, No.72
Sales number: 98.XVII.11
Available for download at:
http://unstats.un.org/unsd/demographic/vital_statistics/publications.htm

5. Handbook on Civil Registration and Vital Statistics System -- Policies and Protocols for the Release and Archiving of Individual Records

Series: F, No.70
Sales number: 98.XVII.6
Available for download at:
http://unstats.un.org/unsd/demographic/vital_statistics/publications.htm

6. Handbook on Civil Registration and Vital Statistics Systems: Computerization

Series: F, No.73
Sales number: 98.XVII.10
Available for download at:
http://unstats.un.org/unsd/demographic/vital_statistics/publications.htm

7. Handbook on Training in Civil Registration and Vital Statistics Systems

Series: F, No.84
Sales number: 02.XVII.10
Available for download at:
http://unstats.un.org/unsd/demographic/vital_statistics/publications.htm

Fertility and Mortality:

8. Handbook on the Collection of Fertility and Mortality Data
Series: F No.92

Sales number : E.03.XVII.11

Available for download at:
http://unstats.un.org/unsd/demographic/standmeth/handbooks/Handbook_Fertility_Mortality.pdf

9. Manual X, Indirect Techniques for demographic Estimation
POPULATION STUDIES, No 81
Sales number: E.83.XIII.2

Disability statistics:

9. Guidelines and Principles for the Development of Disability Statistics

Series: Y, No.10
Sales number: 01.XVII.15
Available for download in English at:
http://unstats.un.org/unsd/disability/disabilityguidelines.pdf

10. International Classification of Functioning, Disability and Health (ICF), WHO 2001
ISBN 92 4 154542 9

Information on how to buy it: http://www3.who.int/icf/icftemplate.cfm

Election of officers

21. The participants elected the following officers:

- Mr. Srdjan Mrkic (UNSD), Chairman of the first and second plenary sessions on the *Main uses of fertility and mortality statistics and their sources* and on *Civil registration as a source of fertility and mortality data*,

- Ms. Grace Bediako (Ghana), Chairman of the third plenary session on *Censuses and Sample Surveys as a source of fertility statistics,*

- Mr. Mekonen Yehualashet (Ethiopia), Chairman of the fourth plenary session on *Censuses and Sample Surveys as a source of mortality statistics*,

- Mr. Liina Kafidi (Namibia), Chairman of the fifth plenary session on *Sources of disability statistics*,

- Mr. E.O. Tawiah (RIPS), Chairman of the sixth plenary session on *Compilation of fertility and mortality statistics at national and international level*,

- Mr. Masentle Malebo (Lesotho) and Ms. Christina Khoza (South Africa) as Rapporteurs of the workshop.

Agenda

22. The workshop adopted then the following agenda:

1. Opening Session
2. Election of Officers
3. Session 1: The uses of fertility and mortality statistics and their sources
4. Session 2: Civil registration as a source of fertility and mortality data
5. Session 3: Censuses and sample surveys as a source of fertility statistics
6. Session 4: Censuses and sample surveys as a source of mortality statistics
7. Session 5: Sources of disability statistics
8. Session 6: The collection of fertility, mortality and disability statistics at national and international level
9. Adoption of the report
10. Evaluation of the workshop
11. Closing session.

23. The adopted organisation of work is reproduced in Annex III.

24. The sessions were organised into plenary presentations with discussions followed by working groups' discussions that provided the participants with a forum for more in-depth debates, sharing of experiences and exchange of views. The group discussions relied on sets of questions on specific issues on the topics covered in the plenary presentations.

D. FIRST PLENARY SESSION: The uses of fertility and mortality statistics and their sources

25. The representative of UNSD[3] introduced the topics of fertility and mortality and their sources. The first part of the presentation highlighted the main uses of fertility and mortality statistics and the main data sources with their advantages and disadvantages (paragraph 27). The second part of the presentation (paragraphs 28 - 34) highlighted the findings of the review of the pre-workshop assignments that was sent to countries in regard to available data sources and the major challenges that the participants encountered with each data source.

26. Fertility and mortality statistics provide a crucial piece of numerical information for a number of activities in the government and private sectors, for example: government planning related to monitoring health; education; poverty reduction policies; marketing of various products or burial needs. When combined, mortality and fertility statistics provide more refined measurements, such as infant mortality rate, maternal mortality rate and population projections. These indicators are then used to assess the level of development of a country as a whole and also for planning regional development. A successful plan of action must rely on tangible and solid measurements for assessing its functionality and fertility and mortality statistics meet these criteria in the area of health and assessing the size, characteristics and spatial distribution of the population at all levels.

27. In preparing for the workshop the participants were asked to provide information on the major sources of data for fertility and mortality in their respective countries. These were complemented with the information already available in the *Demographic Yearbook* collection of the UN Statistics Division. The findings indicate that, in respect to sources of statistics on fertility and mortality, the main tools used in the English-speaking sub-Saharan countries were, in this order, population censuses, sample surveys and civil registration systems.

28. Censuses have their advantages and disadvantages when used for fertility and mortality statistics. A well-documented advantages refers to the fact that they provide statistics for small areas, they are self-sufficient for the calculation of rates and they are universal. On the other hand, they are undoubtedly most expensive statistical exercises and too far apart in time. When analysing in depth the appropriateness of the census for fertility and mortality statistics it was recognised that the processing of results is slow and expensive and that there is a danger that data become obsolete by the time they got published. Another consideration when using census refers to the phrasing of census questions relating to fertility and mortality, as they pertain not to the census date itself, but to a period of time preceding the census (for example, the number of children born to the woman in the 12 months prior to the census date). Also, questions on children other than own are seldom included, which distorts the overall results.

[3] Ms. Tiziana Leone, Associate Demographer, Demographic Statistics Section.

29. As far as sample surveys are concerned, their quality is often affected by sampling and non-response errors and they are not suitable for small area statistics. On the other hand, they provide a much broader range of socio-economic characteristics of the respondents.

30. The civil registration system, when complete, represents the most adequate source for mortality and fertility statistics as it is universal, constantly updated, and can be modelled to provide details of the causes of death. However, often the information is not processed for the smallest geographical unit and it is not self sufficient for the calculation of rates as it needs other data sources for the estimates of the population at risk.

31. The analysis of the data sources and their usefulness for compiling fertility and mortality statistics in participating countries showed that for a total of 13 countries that replied to the pre-workshop assignment, 10 used the census for both fertility and mortality statistics, 11 used a survey for fertility statistics and 10 used a survey for mortality statistics. As for the existence of the civil registration system, although compulsory by the law, in practice it covers only a fraction of vital events and, with few exceptions, namely, Belize, Mauritius, South Africa (with a considerable delay) and Zimbabwe (only for mortality statistics) is not used for generating vital statistics.

32. The analysis also pointed to the lack of coherence between different fertility and mortality estimates computed from different sources, mainly due to methodological differences; findings in the census would differ from those collected by the survey, for example. In addition, it appears that in most cases the users' needs for statistics at geographical detail are seldom met.

33. Finally, the findings point out that the level of availability of fertility and mortality statistics of good quality to the decision-makers is not completely adequate and that efforts are needed in improving capacities of the participating countries' statistical systems.

E. SECOND PLENARY SESSION: Civil registration as a source of fertility and mortality data

34. A representative from the United Nations Statistics Division[4] introduced the topic of the session. A civil registration system is defined by the United Nations as: " continuous, permanent, compulsory recording of the occurrence and characteristics of vital events (i.e. live births, deaths, foetal deaths, marriages, divorces, judicial separations, annulment of marriages, adoptions, legitimations and recognitions), in accordance with the legal requirements in each country"[5]. Civil registration systems were primarily introduced to provide documents pertaining to the vital events of individuals, thus providing legal proofs of the event and documenting it for a number of legal purposes. The safeguarding of human rights with respect to social status and benefits also requires each vital event to be registered.

35. The value of civil registration systems as official and detailed records of vital events was recognized by official statistics and functioning civil registration system is an adequate source of

[4] Ms. Francesca Coullare, Statistician, Demographic Statistics Section.
[5] United Nations (2001) *Principles and Recommendations for a Vital Statistics System Revision* 2. United Nations publications, Sales number: 01.XVII.10. Paragraph 26

fertility, mortality and nuptiality statistics. The relationship between civil registration and vital statistics is a model of statistical use of administrative records.

36. There is a set of different steps that need to be implemented for the use of civil registration in compiling vital statistics. First, there is the minimum number of items that need to be inserted in the registration form. An example of such set was recommended by the Expert Group Meeting on Improving fertility and Mortality statistics in French-speaking African countries organised by the United Nations statistics Division in September 2003 in Yaounde, Cameroon[6]. This set of basic variables for the registration forms was then compared with the list of items recommended by the *United Nations Principles and Recommendations for a Vital Statistics System,* which is much more comprehensive; the former set, consisting of much shorter list of variables, has been recognised as the most appropriate given the level of development of the registration systems in the region.

37. After ensuring that the registration form contains all the topics needed for high-quality vital statistics, there is the whole process of registration that need to be clearly and unambiguously defined: key actors, flow of the data from the informant up to the national statistical office, checking procedures, exchange of information between civil registration and statistics and so forth. It is crucial to apply the same definitions, classifications and methodological standards in both the civil registration and vital statistics to ensure comparability.

38. The quality of data produced from the civil registration system can be assessed using quantitative and qualitative parameters. The former refers to the level of coverage of registration that is expressed as the percentage of events occurred in a given period of time and that have been registered by the system. The latter is based on the level of exactitude of the information notified by the informant and reported by the civil register.

39. There are advantages in using civil registration data for statistical purposes even when obtained from a registration system that is incomplete. A study undertaken by the National statistical Office in Cameroon on registered deaths in the city of Yaounde[7] is a case in point. The purposes of the study were: (a) to evaluate the level of coverage of death registration, (b) to assess the quality of reporting of certain key variables in the death registration forms and (c) to verify if the registration coverage in the capital was significantly higher than in the rural areas. The major outcomes of the Cameroonian study point to some of unexpected results such as the high quality of age reported in death registration that, according to the report, is much more accurate than in other sources. Another finding shows that Cameroon is not registering either the sex of the children in the birth registration forms or the sex of the deceased in the death registration forms.

40. In concluding, (a) the use of civil registration for statistical purposes even if coverage is incomplete is beneficial as it enables detecting errors and, at the same time, emphasizes the need

6 http://unstats.un.org/unsd/demographic/meetings/wshops/vitstats/Cameroon_03.pdf
7 http://unstats.un.org/unsd/demographic/meetings/wshops/vitstats/Cameroon_03.pdf

to support and encourage the improvement of the system; (b) the use of registration forms that contain relevant information for vital statistics analysis is advantageous and, for that purpose, they should be transmitted to national statistical service; (c) use of multiple data sources (civil registration system, census, surveys) is of primary importance for evaluation/validation purposes and also for obtaining complementary information.

41. The discussion that followed the presentation was centred on the use of partial data and on the fact that the minimum level of coverage of vital events by the civil registration system is required for data to be used in the calculation of vital statistics. A level of 50-60% of coverage is considered sufficient for the use of civil registration data in calculating official vital statistics, as long as they are adjusted for undercoverage.

42. Another issue that needs to be addressed in using civil registration data refers to the difference between period coverage and longitudinal coverage of registration. The period coverage is defined as the percentage of events occurred in a given period and reported in this same period in the civil registration system. The latter is defined as the percentage of events occurred in a given period that is registered in the given and following years. The cohort of events is then followed over time to estimate the percentage of events that is registered year after year.

The experience of Mauritius

43. The representative from Mauritius[8] introduced the participants to the profile and functioning of their civil registration system as an example of complete coverage. Mauritius is an island state with population of approximately 1,2 million and with slightly over 20,000 live births and less than 8,000 deaths yearly. Civil registration in Mauritius is used for generating fertility and mortality statistics on a recurrent basis, whereas the population census includes questions on fertility, thus providing a source of fertility statistics used to double-check the accuracy of data collected through the civil registration system.

44. The civil registration system consists of 48 civil status offices in the Island of Mauritius and 2 such offices in the other island, Rodrigues. Some of the registrars are located in the premises of the main hospitals. The events recorded through the civil registrar are births, deaths, still births and marriages. As for live births, the hospital usually notifies the registrar. At the time of registration of the birth, certificate of parents along with the identification cards are required. In addition to this documentation they would need the marriage certificate, if married. The deaths are registered with the medical certificate of the deceased (compulsory) and in addition the birth certificate or identification card of the deceased is required.

45. The law in Mauritius mandates compulsory registration of all births, deaths, marriages and divorces. As for live births, they must be registered within 45 days from the date of birth. Since the newborn acquires Mauritius citizenship by birth and registration, parents are induced

[8] Mr. Chettun Kumar Arianaick, Vital Statistics Section, Central Statistical Office.

to take the necessary steps for registering the child. In addition, a birth certificate is requested for all vaccination in the childhood, provided free of charge, and for enrolling in school. In essence, the birth certificate is required throughout the live span of a person, for example, while applying for a job, a passport and so on.

46. All deaths must also be registered on a compulsory basis, since the body of a deceased cannot be disposed of without the death certificate; the burial/cremation permit is issued only after registration. A death certificate is also necessary to ensure that the surviving spouse is entitled to a pension and other benefits and that heirs' succession is established.

47. As far as the registration procedure is concerned, the civil status officer fills in a vital card for each registration. The cards from the regional civil status offices are then transferred to the main office; next, they are sent to the Central Statistics Office (CSO) on a monthly basis. Afterwards the data are coded at the CSO and finally sent to the Central Information Systems Division (CISD) for data capture and validation.

48. In conclusion, the level of coverage of live events by the registration system in Mauritius is close to 100 per cent. The level of coverage is also checked by comparing data on school attendance of children age 5 to 11 with the number of children of same age obtained from population censuses; the result showed that 99 per cent of the children of that age were attending school. Since the schooling at elementary level is compulsory, and the child cannot enrol in the school without a birth certificate, it is fair to conclude that the coverage of the civil registration for live births is close to 100 per cent.

Civil registration as a source of fertility and mortality data: An example of the use of incomplete civil registration system for the calculation of vital rates

49. A representative from the UNSD[9] presented a study on *Adult mortality and the impact of HIV/AIDS in Zimbabwe* carried out by Mr. Griffith Feeney and published in the Population and Development Review in 2001[10]. It is based on data on deaths by age and sex from the civil registration system for 1982, 1986, 1990-92 and 1995. In addition to the vital registration data, the distribution of the population by age and sex from the 1982 and 1992 censuses and from the 1997 demographic survey was incorporated. First, the Brass method was used to construct the evaluation of the total number of deaths by age and sex. In the next step, these were matched with the partial data coming from the civil registration system, thus providing the assessment of the level of coverage for the civil registration data. The age specific deaths rates are then calculated using the interpolation of the intercensal population estimates obtained from the census data as denominators.

50. The study findings show a significant increase in the level of deaths between the ages of 15 and 50 that are likely to be due to HIV/AIDS. When comparing the census data with the data

[9] Ms. Francesca Coullare, Statistician, Demographic Statistics Section.
[10] Griffith Feeney, (2001) 'The Impact of HIV/AIDS on Adult Mortality in Zimbabwe'. *Population and Development Review*, Vol. 27, No. 4. (Dec., 2001), pp. 771-780

obtained from the civil registration system, it is possible to notice that the patterns are very similar, indicating that it is feasible to use civil registration data even if incomplete, provided appropriate techniques are used, the level of under-enumeration is properly assessed and the coverage does not fall beyond the 30% mark. This result demonstrates the usefulness of compiling and processing death registration data at least to assess the quality of the estimates obtained from other sources. In addition, the study found that data on registered deaths proved to be very useful in confirming estimates of the level and trend of the impact of HIV/AIDS over the 15 years period.

Group discussion

Group discussions on Session 2:

51. The workshop broke in three groups to discuss specific assignments related to the technique used to assess the coverage of incomplete civil registration statistics in Zimbabwe and the interpretation of results. There were seven questions in all:

Question 1: Even if incomplete in coverage, are death registers available/accessible to statisticians for their analysis? Please highlight in your answer the major constraints/difficulties encountered when exploiting civil registration data.

52. The groups noted significant difficulties in the region in relation to the exploitation of data collected by the civil registration system. As for accessibility, in general, all records are at the disposal of the statisticians, but mainly in a non-organised format, that is, in hard copy. In several cases, it appears that statisticians never approached civil registration offices for access to data.

53. Though access to civil registration does not seem to be an insurmountable obstacle, the groups noted a number of other limitations that hamper the use of civil registration data. In quite a few cases the lack of cooperation between the civil registration offices and statistical offices is a consequence of the break in (or non-existence of) communication between the two institutions, despite the existence of laws that sanction the exchange of data. When the exchange exists, it is often one-sided. For example, the civil registration authorities of Ghana are sending copies of all records to the Ghana Statistical Services for at least the last sixteen years, yet statistics did not make any use of them so far, for a number of different reasons, such as low coverage (around 28%), lack of manpower and other resource constraints. In South Africa, as another example, the exchange was stalled for seven years, as the civil registration authorities under the Ministry of Home Affairs stopped providing data to Statistics South Africa, a situation that is only now being addressed in the proper manner, but that resulted in a backlog all the way to 1996.

54. Participants also noted that sometimes the data from civil registers are being made available to the statistical authorities in a format that requires considerable efforts in harmonising it with the routine statistical applications. For example, in South Africa and Swaziland these records reach the statistical office in a mainframe format, which requires translation, which in turn requires developing sets of applications that need testing and so forth. In other cases, these

data are available only in hard copy, which would require coding, data entry, editing, tabulating and all other necessary steps.

55. Group discussions emphasised that in all of the countries represented at the Workshop, civil registration as a system is not regarded as reliable source of information, mainly because of the low coverage. In a number of countries there is no tradition in registering vital events, especially in rural areas. Coverage of vital events in the registration system in the region is as low as 10% for births (Zambia). In Lesotho, the coverage for deaths is higher than for births, since death certificate is crucial for insurance purposes, but still does not reach half of the deaths occurred.

56. Although in the majority of the countries the registration of births and deaths is compulsory, the regulations are not enforced for different reasons. For example, in rural Ghana, despite the law requiring the deaths certificate for access to burial sites, in most cases the family of the deceased offers the official responsible for burial site some kind of treat ("a bottle of schnapps" in the words of a participant), and the burial is allowed to proceed even without the death certificate. In Swaziland, where the introduction of the personal identification number (PIN) is in full swing and the birth certificate is a prerequisite for a number of documents (passport, bank account, etc.) the coverage of civil registration does not exceed 30%. Another detriment to the full compliance with registration regulations is introduction of fees deemed to steep for most of the population. For example, in Ghana, when in some regions the fees imposed by civil registration authorities were increased the coverage promptly dropped from 24% to 17% in the following year. After bringing the fees down, it climbed to 28%. Therefore, even if compulsory, the civil registration rules are not enforced properly, which leads to the low coverage, which, in turn, hampers, but should not exclude, the use of these data for statistical purposes. In addition, the civil registration is not compulsory in some of the countries in the region (Malawi, for example).

57. The participants also emphasised that it is not only the coverage of civil registration that represent a constraint, but also quality and statistical usefulness of data. In Uganda, for example, the only two categories of the age classification used in the civil registration system are "Under 5 years of age" and "Over 5 years of age", which seriously limits the use of the information. It was also noted that in some cases the basic information, such as sex, is not correctly entered in either the birth or death certificate (Ethiopia).

Question 2: Availability in death registration forms of data disaggregated according to key variables:

- *Age of deceased*
- *Sex of deceased*

58. Without exceptions, the groups concluded that the registration forms for death should as a rule contain information on age and sex of the deceased, which does not make it automatically useful for statistical purposes, giving the limitations of the civil registration in the region.

Questions 3: Apart from civil registers, are there any other sources of data for statistics on population by age and sex and for death statistics?

59. The major source of population and death statistics are population censuses and various surveys. Population census is the major source of data on population by age and sex, and, despite all the obstacles (over- and under-enumeration, lengthy processing and so forth) is the single most crucial data collection activity.

60. Regarding surveys, they are used through the region to complement data from censuses. Generally the Demographic and Health Survey (DHS) conducted by Macro International, is present in at least one run in the countries of the region. Quite a few countries had more than two runs of this survey in the past decade and a half. As for the data collection and processing for DHS, countries cited different practices; in several cases, central statistical authorities are not involved in neither data collection nor processing (Namibia, South Africa); in the majority of cases, data collection remains the responsibility of the central statistical authority, but not the data processing and tabulation, delivered by Macro International; there are also cases where both the data collection and processing is done by national teams under supervision (Nigeria).

61. Household surveys are also represented in the region as data collection instruments and they vary in terms of content, sample size, purpose and so forth.

Question 4: In sources specified above (under question 3) are death statistics disaggregated according to following variables:

- *Age of deceased*
- *Sex of deceased*

62. The answer to this question varied depending of the source of data. For example, a survey on sibling survivorship collected information by age and sex (South Africa), but quite a few others did not. Censuses rarely collected data on deaths. In general, groups concluded that deaths statistics are not regularly available, nor are they products of recurrent data collection activities.

Question 5: Availability of two consecutive censuses with data aggregated by age groups and sex.

63. In general data on population by age and sex are always available in two consecutive population censuses, the groups noted unanimously. The issue of periodicity of censuses, however, has an impact on the possibility for developing meaningful patterns. In some cases, the time lag between two censuses well exceeds ten years.

Question 6: Availability of registered deaths in intercensal period disaggregated by age groups and sex?

64. As elaborated in detail under question 1, the civil registration is not used as source of statistics in all but three countries of the region (Mauritius, South Africa and, partly, Zimbabwe).

Question 7: Availability of computers and Excel spreadsheet software?

All groups stated that these are readily available in their respective countries.

65. In concluding the general discussion on the work of the groups, several points were outlined in the plenary:

- The use of civil registration as a source of data on fertility and mortality needs significant improvement, involving all the partners at the data collection and processing level. This, since the Workshop emphasised that data collected by civil registration, if near complete and reliable, are invaluable source of detailed fertility and mortality statistics. Even if of incomplete coverage, if the level of incompleteness is known beyond doubt, these registers become as valuable as if they were complete.
- Statisticians need to initiate partnership and protocols for exchanging data with the civil registration authorities. While such an arrangement is in many countries specifically sanctioned by legislation, in practice it is seldom fully functioning. As for the protocols, they should establish fixed formats and procedures for data transfer as well as responsibilities for data editing and corrections of errors. Statisticians, as it was pointed out, have in depth experiences with data editing and checking and can, therefore, significantly contribute to the accuracy of the administrative records, which, in turn, benefit civil registration authorities.
- Statistical authorities also need to raise the issue of completeness of civil registers as one of the crucial components of functioning of national statistical systems. Relying on administrative records certainly has its limitations and many advantages as well. A prerequisite of accurate, universal and recurrent vital statistics is a functioning civil registration system that transfers data to the statistical service. As emphasised by the participants, putting the civil registration system in the region is not an easy task, and the initiative to improve it in terms of coverage and quality is a major interest of the statistical system.
- In the interim, the statistics on fertility and mortality will continue to be drawn from censuses and surveys and there is a need to take a close look at current practices and methodology in that respect, and to fine-tune these instruments in order to better quantify demographic phenomena on the ground.

F. THIRD PLENARY SESSION: Censuses and Sample Surveys as a source of fertility statistics

66. A representative of the Regional Institute for Population Studies[11] presented this session. Using censuses and surveys for the purpose of generating fertility statistics requires incorporation of specific questions, such as. the number of children ever-born and the number of children surviving. Six major methods of estimating fertility from population censuses and sample surveys are reviewed: reverse survival; own-children method; reconstructed birth histories; children ever born; recent births and birth histories.

67. The *reverse survival* method considers the number of persons less than one year of age enumerated in a population census as the survivors of the births that occurred in the population during the year prior to the census. The number of births occurring in that specific year prior to the census can be estimated by using life table survivorship probabilities to "resurrect" numerically those who died before the census was taken. This method of estimation is known as *reverse survival* or *reverse projection*.

68. In the absence of complete vital registration, the reverse survival method may be used to estimate the number of births, the crude birth rates and the general fertility rates for the 15 years before each population census and some surveys. To be applied, this method requires statistics on population by single years of age and the sources of this information are censuses and surveys that ask questions on date of birth or directly on the age of the respondent. Hence, tabulations on the total population by sex, all ages in single years of age are provided by every population census and most population surveys, which makes the *reverse survival* method quite applicable.

69. The *own-children method* is an extension of the reverse survival method in which the children who survived in the household are matched to their mothers. Reverse survival method and own-children methods differ most markedly by the type of data they require. Namely, the matching of children and mothers in the *own-children* method provides for the characteristics of the mothers to be linked to their children, which is not necessary in the *reverse survival method*. The matching is done only if the questions identifying mothers and children in households (such as the "line number of mother" questions) are included in the census or survey. It requires linking mothers and children using the "relation to head of household" question. For each person under age 15 in the current household the matching determine whether this person's mother is present in the household and if so which person it is. If no mother is identified this person is marked as "non-own" child. The tabulation of all persons under age 15 by age of child and age of mother in single years is constructed, after matching the children to the mothers. Women aged 10-64 should be included if significant number of births occur to women under age 15. Whereas, women aged 50-64 years are included because these women contribute births during the 15 years before the census.

70. The tabulation of age of mother by age of child in single years in particular is used to compute age specific birth rates for the 15 years prior to the census. Quality of the age pattern of

[11] Dr. E.O. Tawiah, senior lecturer, Regional Institute for Population Studies, Accra.

fertility indicated by own children estimates reflects the accuracy with which children are matched to mothers and the accuracy of age information for mothers.

71. This procedure allows disaggregating the number of births by age of mother at birth and therefore calculates age specific fertility rates for the 10 or 15 years preceding a census or survey. In addition, it allows the calculation of age specific birth rates for various subgroups of the population, such as by educational attainment of mother, religion, ethnicity etc.

72. The *birth history reconstruction* method is an extension of own-children method that produces a complete history for every woman under age 65 using statistics from population census or survey. The birth history reconstruction imputes the years since birth for surviving and deceased children based on the years of birth of the own children and the estimated age patterns of fertility and mortality. The tabulation of reconstructed birth histories follows the same principle as the tabulation of actual birth histories with two differences. Firstly, the reconstructed birth histories only provide the year of birth for each child, rather than the date of birth. Secondly, reconstructed birth parities may be used to calculate age-parity-specific birth rates.

73. Questions on the number of *children ever born* (CEB) to women have been consistently used in population censuses over the past 50 years and represent the core of the CEB method. These questions provide important information on fertility and when combined with the question on surviving children, estimates of infant and child mortality can be constructed. In particular, data on CEB provide the basis for estimating a variety of fertility statistics such as parity distributions for women in different age groups (dividing the number of women by number of children ever born by the total number of women); parity progression ratios; average number of children ever born (dividing the total number of children born to women in an age group by the total number of women in the age group); completed fertility which refers to the average number of children born to an actual or hypothetical group of women who have reached the end of the reproductive ages, generally taken to be age 50; total fertility rates (TFRs) (the completed fertility of any birth cohort provides an estimate of the TFR as of the time this cohort reaches its mean age at childbearing); and age-specific fertility rates – average numbers of CEB for cohorts are different from the estimate the age specific fertility rate for the cohort during the period between the censuses and/or surveys (availability of data on CEB by age of mother from two or more successive censuses and/or surveys).

74. Census and survey respondents may be asked how many live births occurred in their household or to particular women in the household during the past year or other recent time period. This type of questions refers to the *recent births* method. Additional questions could ascertain: when birth occurred, the sex of the child born, whether or not child is still surviving. Alternatively, for women who have had at least one child, respondents may be asked about the date of the most recent birth. Unlike questions on CEB, questions on recent births require respondents to remember when particular births occurred.

75. The limit of this method is that the question on number of live births a woman had during the past 12 months and the question on the year and month of their most recent live birth exclude births to women who died before the time of the census or survey. On the other hand, a question

on number of live births in the household will capture births to women who died before the census or survey. However, the household question will not capture births occurring in the households that were dissolved before the census or survey. Those births will be captured with a question on births per woman as long as the woman is surviving. The problem of this method is that the estimates will be affected by these limitations in reporting.

76. The last method is the one of *birth histories* that *c*onsists essentially of a list of all children a woman has had, living and deceased. In addition, for these children it contains certain information such as the date of birth, the sex of the child and whether it was a single or multiple births.

77. The use of birth histories is generally restricted to samples of 5,000 to 10,000 women and is only occasionally used in larger surveys and population censuses. This method is important as the birth history data allow the calculation of age specific birth rates and infant and child mortality rates. Calculations involve various complex procedures as the information is only on the year and month of birth rather than on date of birth. In particular the calculation of the numbers of person-years lived (denominators of the rates) can be cumbersome.

78. In concluding, it was highlighted that there is a sign of an improvement in both quantity and quality of demographic data for fertility analysis, primarily based on successful censuses and the increasing number of surveys. Estimation of fertility levels, differentials and trends should attempt to use as many of the six techniques highlighted as possible.

Countries' experience

79. Countries' representatives were then asked by the Chairperson to take the floor and present the status of fertility statistics in their countries, highlighting the sources and specific methods/techniques used in their country to estimate fertility statistics.

Belize

80. After a brief introduction of her country highlighting the fact that Belize is characterised by a multitude of ethnicities and the presence of high emigration, the representative of Belize presented the sources of fertility data in her country. Censuses have been carried out on a decennial basis since 1980 with the assistance of the Caribbean Community (Caricom) Secretariat. As for the sample surveys, Belize had a Family Health Survey in 1991 and one in 1999 that used standard questions on number of children ever born by sex, by place of staying (living in the household or elsewhere) and finally in case they died if they were women between 14 to 64 years old. Also included in specific sample surveys in Belize are questions on the age of mother at her first birth; the date of her last birth as well as on births in the last 12 months by sex and survival status.

81. The representative said that responses are checked for validity, and specific methods for data quality like the Whipple index to detect age reporting quality are applied. Life tables have been calculated on the basis of the census collected that number of children ever born and still surviving using the Brass technique as well as information from registered deaths.

Ethiopia

82. The representative of Ethiopia emphasized that fertility data at the country level were obtained for the first time with the first census of the country in 1984. Before this date, only *ad hoc* estimates for the fertility in Addis Ababa were available. Brass methods were used on results from the questions on children ever born and the number of births in last 12 months without collecting the information on the sex of the child. This set of questions was asked only to a 20% sample of households. Once the results were analysed, a lot of errors were detected mainly due to a low quality of training of enumerators in addition to the difficulty of inviting women to discuss about their reproductive behaviour even with the consent of their husband. The second census took place in 1994 and provided better estimates of fertility from the national down to the regional level. Unfortunately, estimates for the district and lower administrative levels were not used because of the low quality of these estimates.

83. In terms of sample surveys, Ethiopia conducted in 1990 a National Household Sample Survey that provided good estimates of fertility. In 1998, they conducted the National Nutritional and Health Survey, which was targeting specifically children but was also used for the measurement of fertility. Only the total fertility rate (TFR) was calculated and the results were consistent with those from the most recent census. The representative underlined that the data obtained with DHS in 2000 are considered the best the country has ever had for the measurement of fertility. With the use of birth histories in particular, much more information on fertility was produced. The interviewers were well trained, fairly paid and better supervised. This was reflected in the higher quality of data obtained.

84. The representative reiterated the need for better data at the lowest administrative level and the chairperson noted that only a functioning civil registration system will provide the required data at the lowest geographical level and in a continuous way.

Ghana

85. Ghana conducted one World Fertility Survey and three DHS based on the birth history method. As for the census, Ghana can count on four censuses: the 1960, 1970, 1984 and the last in 2000. For the last one, questions on fertility were asked to women 12 years and older about the number of children ever born by sex, children surviving by sex and number of births in the last 12 months.

86. Civil registration in the country is regulated by the Birth and Death Act of 1965 that specify the compulsoriness of the registration. Despite this, as the representative from the civil registration office in Ghana explained, only 28% of births in 2003 and 23% of deaths in 2003 have been registered; this low coverage is due to the lack of registration offices and of incentives for registering (usually the requests for birth certificates come late in life when needed for a passport and so on). She also mentioned that in view of improving the civil registration system, since 1991 Ghana has been considering using a *community population register programmes* in selected districts. These programmes, based on the concept of local authorities registering vital events at the low level of neighbourhoods and villages have not been implemented yet mainly for financial reasons.

87. The discussion that followed this presentation focused on the potential role of community leaders and teachers in the registration process. They could be used as notifiers to the civil registration office on the occurrence and characteristics of the event. In addition, it was mentioned that there is a Demographic Surveillance Site based in Navrongo in Northern Ghana. This system is an ongoing survey of fertility, health and mortality for a large sample of the population. This type of data collection could be another possible way to improve the registration of births and deaths. In fact, in these follow-up surveys, community leaders visit selected households periodically and could be used to report the occurrence of certain events.

Kenya

88. Kenya can count on a series of decennial censuses for the collection of fertility data even if the representative underlined that while up to the 1969 census only 10% of enumerated women were asked fertility questions, after that census, fertility has been based on a complete enumeration. The basic questions used for the collection of fertility data are the number of children ever born (with the distinction between children living in the household and those living elsewhere) and the fertility on the previous 12 months. The representative pointed out that Kenya had problems in publishing data for the 1989 census due to the lack of resources and it was released only in 1996.

89. As for the use of sample surveys for the collection of fertility data, the representative listed the surveys available in the country like the 1984 Contraceptive and Prevalence Sample Survey and the 1989 and 2003 DHS. He added that the latest DHS birth histories have produced fertility estimates very close to those obtained from the last census. However, a major limit of the results from sample surveys is that the sample frame covered only half of the country.

Lesotho

90. Lesotho, as well as other at the meeting, relies on different data sources to measure fertility levels and trends: the census in 1986, sample surveys including the DHS in 1991 and two Reproductive Health surveys. The combination of questions on children ever born, children surviving and recent births is used in Lesotho.

Malawi

91. The representative from Malawi listed the census and sample surveys (primarily DHS) as the sources for fertility data in his country. He pointed out that the major method to obtain fertility statistics was the number of children ever born disaggregated by the place of residence: household and elsewhere. As for civil registration, the representative explained that there is none in his country but that new interest and efforts have been recently undertaken with the assistance of UNICEF on a pilot basis in over 9 districts.

Namibia

92. The representative from Namibia stated that the main sources of fertility in her country are sample surveys and censuses. There are two censuses available for the study of fertility: the 1991 and 2001 censuses that are based on a methodology harmonised and standardised throughout the SADC region in terms of definitions and questions used. Women interviewed are those aged between 12 and 49. Namibia is using the number of children ever born with the distinction between those living in the household, those living elsewhere and those deceased. They are also collecting information on the recent births by asking women the date of birth (month and year) for the last live birth. On this specific question, they also check if the birth has been registered in the civil registration system. They then asked the age of mother at the time of her last birth. These questions are usually asked directly to the women in the household and if not possible, to the head of the household.

93. As for sample surveys, the representative mentioned two DHS of 1992 and 2000 that have been carried out by the Ministry of Health and Macro International. She pointed out the issue of ownership of data by specifying that the National Statistical Office (NSO) is not involved in the data collection itself. NSO participated in some of the meetings discussing the content of the questionnaire together with the representatives from the Ministry of Health. She also said that the NSO does not agree with some of the results published in the DHS report; for example, the level of mortality by sex according to the last DHS is higher for female than for male; this is in conflict with what the NSO was expecting and that had already been documented through census results and hospital records.

94. The representative then concluded with the status of civil registration in her country and explained that the system is manually maintained and statistics have been calculated and published up to the year 1994 only.

Nigeria

95. Nigeria collects information on fertility through sample surveys (World Fertility survey in 1981-82, DHS in 1990 and 2003 and MICS in 1991) as well as through the last census of 1991. The representative from Nigeria mentioned that the next census should take place in 2005. The major problem he highlighted was the lack of questions on maternal mortality in the census collection that is a concern for both the country and the international community (UNDP). In the next census they are planning to use the questions on children ever born and surviving for their estimates of fertility.

96. Civil registration is compulsory but the coverage is rather low due to the lack of incentives to register.

South Africa

97. The representative from South Africa provided information about the last two censuses of 1996 and 2001 that included questions on the number of children ever born by sex and survival status of children and about the two DHS of 1998 and 2004 that were also asking the same

questions for the collection of fertility data. In addition, data from the Demographic Surveillance Sites are used to assess the quality of census data on mortality.

98. As for civil registration in his country, the representative said that the level of coverage varies a lot between the urban and rural areas. He also specified that until recently, registration was not compulsory for African people thus explaining the low registration coverage for this sub-population.

Swaziland

99. The representative of Swaziland pointed out that the 1996 census had questions on fertility. Among these were questions on children ever born, those living elsewhere and those who have died; and questions on children born in the last twelve months. One DHS intercensal survey has been carried out that included the same set of questions and another health survey is planned for next year.

100. In addition to the registration of births and deaths there is a personal ID number introduced three years ago. This PIN number is required when applying for a passport. Despite the presence of a civil registration system the information is not used to calculate fertility indicators due to the poor coverage.

101. The representative concluded by saying that the main problem that the statistical office is currently facing is the migration of the data from the mainframe to PC environment.

Uganda

102. The representative from Uganda highlighted that the country had three rounds of DHS. In addition there were three censuses in 1969, 1980 and 1991 in which questions on children ever born, and surviving children have been asked. Also, he emphasized the controversial situation the National Statistical Office faces when using indirect techniques for estimating fertility and mortality: sometimes users challenge the quality and accuracy of the estimates solely based on the fact that they were not directly assessed, but were obtained using indirect methods. These complaints increase with the territorial disaggregation, that is, as the estimates are produced by the NSO for sub-national levels, the challenges on the accuracy based on indirect techniques increase.

Zambia

103. The participant from Zambia pointed out that her country has had four censuses since independence, namely in 1969, 1980, 1990 and 2000. The questions currently on the questionnaire were introduced in the 1980 questionnaire and they refer to children ever born; how many are living with the mother or elsewhere and those that died by sex; and to the number of births in the last 12 months.

104. In addition to the censuses there has been 3 rounds of DHS data in 1992, 1996 and in 2001/02. She highlighted that Zambia has experienced for both censuses and Surveys a tendency to omit live births that result in deaths. The civil registration system is in place; however data are not used as the coverage does not exceed 10% for births and deaths.

Zimbabwe

105. The participant from Zimbabwe highlighted that there has been three censuses in 1982, 1992 and 2002 in the country. In the intercensal period between the last two censuses, 1994 and 1997 two DHS were conducted. The census questionnaires included 4 questions for women aged 12-49 years old: Has the respondent ever given birth? If yes how many are still alive? How many are here in the night of the census? How many elsewhere? For each of the last three questions sex and age are requested. The census is usually the main source of fertility data. However, there is a delay in the publication of data as only two people were working on processing the data. At this stage mortality has been prioritised over fertility. Civil registration data even if existing are not used for estimates on fertility but only for mortality indicators.

Group discussion

106. The participants of the workshop were divided into smaller groups for group discussions. During these discussions the following issues were raised:

1. Statistics on fertility in the participating countries are obtained from sample surveys – most commonly DHS - censuses and, in some cases, civil registrations. The data are generally available, though often not disaggregated at a lower level.

2. Some of the problems related to the collection of fertility statistics were the difficulty to reach remote areas for complete coverage and omitting of enumerating newly-born children, which is especially common for young mothers that tend to hide out of wedlock births.

3. It was also emphasised that, when it comes to the collection of data by age, inaccuracies happen often for two main reasons: a) inadequate training of enumerators and b) respondents' inaccurate reporting of age heaping.

4. To improve age reporting there is a need to:

    - improve training of enumerators;
    - preparing calendars with both region-specific and national events when using historical events for estimating age;
    - stress the importance of enumeration of correct age for enumerators as well as respondents;
    - explaining to respondents the purpose and importance of data collection and its strict confidentiality;

- arrange with proper supervision of enumerators in the field.

5. In addition, the reporting of age can be improved by extending the age groups for child-bearing female population to 12-55 years of age; by building consistency checks in questionnaires, such as questions on both date of birth and age; by generating the field-check tables during surveys and by improving collaboration with stakeholders.

6. In terms of fertility estimation techniques in participating countries, quite few of them are applied but often with poor results. In this regard the group stressed the need for capacity building of statisticians in understanding the different estimation methods and their appropriate use.

7. In conclusion, to improve fertility statistics in the region the group stressed the importance of the following points:

- Civil registration is indispensable for data collection on fertility; hence there is the need to strengthen the civil registration system in each country.
- Education of the population plays a central role in data collection, since high literacy level increases the level of accurate information given by respondents;
- Training of enumerators on age collection is crucial, including for example the use of historical events and estimation of age;

G. FOURTH PLENARY SESSION: Censuses and Sample Surveys as a source of mortality statistics

107. A representative of the Regional Institute for Population Studies (RIPS)[12] introduced this session with a presentation covering the major techniques to estimate mortality statistics and highlighting advantages and disadvantages for each of them. A general overview of the set of techniques available in the estimation of mortality included: (a) survival of children ever born, (b) birth histories, (c) recent household deaths, (d) survival of parents, (e) survival of siblings. He then focused on each technique pointing out the questions used, tabulations needed, estimation techniques and quality of statistics obtained.

108. Questions on fertility are also used to measure mortality. Some of the issues highlighted in the session on fertility were therefore applicable when studying mortality. Most African countries do not have vital registration systems, or where they exist it is neither representative nor complete. As a result, mortality estimation has concentrated on data collected in censuses and sample surveys.

109. When analysing mortality, two aspects should be considered: first, the difference between levels and trends in mortality and age patterns; second, the difference between younger and adult mortality. While age patterns can be estimated on the basis of birth histories and recent household deaths, levels and trends in mortality can be obtained using data on children ever born and surviving, and survival of parents, survival of siblings on assumptions made on the age pattern.

110. Survival of children ever born provides information on mortality for persons younger than 15 years old. Questions on children ever born and children surviving have been used extensively in both censuses and surveys to collect data on both fertility and mortality (infant and child mortality). The quality of the data obtained has been encouraging especially for countries conducting censuses regularly. The basic questions asked to women 15 and above are: (i) the number of female children a woman has had altogether in her lifetime, (ii) the number of male children a woman has had altogether in her life time, (iii) the number of female children who are surviving and (iv) the number of male children who are surviving. When the procedure was conceived it had only 2 questions: 1) children ever born and 2) children surviving, but the accuracy of reporting was not very good; the splitting of the basic questions into more detailed questions on sex and place of staying of children (in household/elsewhere), provided better estimates.

111. For example, the 2000 Population and Housing Census of Ghana asked the following relevant questions about females 12 years or older: 1. “How many male children has (NAME) ever born alive (living with you or elsewhere or dead)?” 2. “How many female children has (NAME) ever born alive (living with you or elsewhere or dead)?” 3. “How many male children ever born alive to (NAME) are still surviving (living with you or elsewhere)?” 4. “How many female children ever born alive to (NAME) are still surviving (living with you or elsewhere)?”. Respondents then are pushed to give more accurate information.

[12] Chuks J. Mba, Regional Institute for Population Studies (RIPS), Accra.

112. Given the availability of the information on sex of the children, the estimates can be provided also by sex. He then explained that the technique is based on the proportion of deceased children by age of mother. Proportion of children that died is calculated as the difference between those born and those surviving. In terms of tabulation, children ever born (CEB) and children surviving (CS) should be tabulated by age groups of mother.

113. *Birth histories* (BH) provide information on mortality for persons younger than 5 years old (estimates of level and trend of infant and child mortality). The birth histories method also provides reliable data on the age pattern of infant and child mortality. The data may be used to check the validity of the assumed age pattern of mortality used to produce mortality estimates from data on children ever born and surviving.

114. The set of questions used aims at assessing for every child born to every woman of whom the questions are asked: (a) the sex and date of birth of each child, (b) whether the child is still alive and, if not, (c) the age and/or date of death. The information here is to be given at the time of the survey by all eligible women in the household.

115. In order to increase the quality of the results using this technique, it is of crucial importance to ensure proper training of interviewers and supervisors in the field work. There are four possible sources of error: *(i)* Misreporting of age at death: heaping on multiples of 12 months; (ii) Age-selection bias: data collected only for women under 50 years of age. We should think of extending the age bracket if it is believed that in a given country useful information can be captured beyond this threshold; (iii) Mortality-selection bias: exclusion of eligible women who die prior to the survey. This can comport a significant bias in the estimation in high HIV/AIDS prevalence countries; (iv) Sampling error: Smaller sample sizes (DHS is usually based on a sample of 5,000 to 10,000 households) or lower infant mortality rates will yield larger errors.

116. *Recent household deaths* provide information for the estimation of mortality for all ages and they are generally used to estimate age patterns for adult mortality. Questions on recent deaths in households have not been as widely used. However, they are the only possible source of information on the age pattern of adult mortality in the absence of complete and accurate death registration data. They are also the only census and survey questions that potentially provide data on mortality over the entire age span. Questions on recent household deaths may provide useful information on cause of death.

117. Questions on recent household deaths differ from the other questions because they refer to persons not enumerated or interviewed. In general, questions aim at obtaining the sex and age at death of all persons who died during the 12 months preceding the census date and allow for a total of as many as 3 deaths. Unfortunately these techniques have not been widely used because deaths are usually underreported. However, recent experiences have shown better results stimulating further use.

118. *Survival of parents* only provides information on adult mortality (estimates of level and trend of adult mortality). The basic questions are: (i) Is your [this person's] mother still living? (ii) Is your [this person's] father still living? Either questions may be elaborated by asking the year and month of death when the mother or father is deceased. The basic tabulation for the question on survival of mother is the total population by age, sex and whether or not the mother was surviving at the time of the census or survey. Age in five-year groups suffices for all tabulations and the sex dimension is recommended to assess adoption bias. The basic estimation procedure estimates life-table probabilities of survival from the proportion of persons (males, females or both sexes) in each five-year age group (5-9, 10-14, ...). The 0-4 age group is not used because the proportion of deceased parents is usually very low and subject to erratic fluctuations. Estimates of trends of adult mortality from data on survival of parents can be obtained for approximately 15 years prior to the time of a census or survey.

119. The quality of adult mortality estimates derived from data on survival of parents depends on the quality of the data, the accuracy of supplementary parameters required by the estimation procedure and the validity of the model life-table family used for the estimation. Generally, the most effective way of assessing quality is to compare the parental survival estimates with estimates from other sources. The three sources of error are: *(i) Misreporting of survival of parents,* if it is a nuclear family, the children will report more accurately but if the household is complex and the relation between members is difficult to establish, then the results are not very good; *(ii) Misreporting of age,* age exaggerations in particular will result in proportions of surviving parents that are too high and therefore in estimates of adult mortality that are too low; *(iii) Selection error***,** the mortality experience of men and women with no surviving children is necessarily excluded from the responses to the questions, the omission of which may bias estimates.

120. Questions on *survival of siblings* are used for estimating adult mortality but have not experienced a wider usage. The technique is similar to that of basing estimates on survival of parents or children ever born. The basic sibling survival questions are as follows: Brothers ever born (Brothers surviving to age 15); Sisters ever born (Sisters surviving to age 15). The form of the tabulation for both the basic sibling-survival questions and the adult sibling question is the same. The basic tabulation for the sibling-survival questions shows all persons over age 15 by age in five-year groups (15-19, 20-24, … 85+) classified by brothers (living here, living elsewhere, and deceased) and sisters (living here, living elsewhere, and deceased).

121. In concluding, concerted efforts should be made in the training and supervision of fieldworkers to ensure the most accurate reporting possible in the collection of mortality data from censuses and surveys. In addition sample sizes for mortality estimation should be increased to overcome the rarity of the event. The best solution to the lack of data on mortality is the establishment and rapid improvement of the sources of basic vital statistics through the registration of births and deaths. In the future, it is hoped that the fundamental difficulties with regard to finance, legal and administrative problems will be overcome.

Discussion

122. The discussion that followed focused on the following issues: (a) the ideal sample size for sample surveys should depend on the population of the country rather then be fixed at a size of 5,000 to 10,000 women. Having a larger sample would also allow more flexibility when adjusting data, with available techniques, for under reporting of deaths; (b) when collecting information on mortality through the recent household deaths method, it is recommended to determine where the deaths took place to avoid counting several times the same death; (c) the use of censuses for the collection of mortality data is important in order to eliminate the sampling error and to be sure of having a basis for mortality estimations even in case of large underreporting of deaths; (d) given the impact of HIV/AIDS in the region, it would be advisable to estimate mortality using the "traditional" techniques as exposed in the previous section as well as new ones more recently (see para. 122) developed and available in specific packages to in an attempt to measure the prevalence of the disease.

123. Newly developed techniques still being tested that estimate mortality levels with and without the presence of HIV/AIDS can be useful to calculate the level and trend of mortality in the countries. Traditional techniques are still applicable, but given the prevalence of AIDS, we should use new techniques developed for HIV in conjunction with the traditional ones in order to compare the results and provide better statistics for policy planning to fight the disease. For the collection of cause of death data, civil registration was recognised as the best source for collecting such information. However, given the increase demand of mortality information especially for the age group 15-50 particularly concerned with HIV/AIDS, other sources should be used to, at least have a basic idea of the impact of the disease. To improve the reporting of AIDS, the prejudices and stigma associated with the disease need to be overcome. This will need time, information, communication and education programmes. Campaigns targeting rural population should be undertaken to reorient people and show them the advantages of having such information.

124. Techniques used among some of the countries represented that cannot count on a reliable civil registration system, are based on a set of questions associated with the recent household deaths method. The questions asked are: Did any death occur in this household in the last 12 months? If Yes, what was the sex of the deceased person? What was his/her age? Was death due to an accident or suicide? If the deceased is a woman, was she pregnant when she died? Did she die within the first month after delivery? This set of questions would allow obtaining approximation on both maternal mortality and the prevalence of HIV/AIDS (by analysing the age pattern of death after subtracting accidental and suicidal deaths from the analysis).

Countries experiences

Belize

125. The statistical office of Belize utilises survival of children ever born and the birth histories method to asses the level of mortality. The data to apply the first method are gathered from censuses and surveys. The data for the calculation of the second method are gathered from surveys only. The mortality rates are calculated utilising the data from the civil registration system whereas the census is used to calculate the life expectancy at birth. Belize is in the process of improving the quality and coverage of the civil registration system. In particular it is focusing on the classification of causes of death taken from ICD 10[13]. With the help of Pan American Health Organization they are training the physicians on the classification in order to make sure that they report the right cause of death.

Ghana:

126. The representative of Ghana highlighted that the statistical office relied on census and surveys to estimate mortality. The DHS birth histories in particular are used to estimate infant and child mortality. In the 1992 DHS applied the sisterhood method for assessing maternal mortality. In the 2000 survey the children ever born and children surviving methods were used to calculate mortality, on the basis of the census data.

127. She added that the data obtained from the civil registrar are not reliable as people get buried without being registered. She stated that the level of coverage has been assessed to 23 per cent. Despite being mandatory the registration is not enforced enforced.

Kenya

128. The representative of Kenya highlighted that his statistical office uses all the techniques listed in the presentation except the one on recent household deaths. The National Statistical Office plans to establish a database of those techniques in the next several months. Since 1960 there has been a component on mortality based on the same questions used for fertility: the children ever born, living in the household or elsewhere, and when the last birth occurred. In relation to the surveys used as sources for mortality statistics, DHS uses the birth histories method. In addition maternal mortality levels are collected from the DHS as well. He remarked that due to the small sample of the DHS it is difficult to assess the real extent of the problem as maternal mortality is a rare event and therefore less recurring in a sample survey. Thus, it is important to give more relevance to census questions as the data obtained from surveys cannot give a proper picture of maternal mortality.

129. The estimates of the level of mortality in the country rely on Coale and Demeny life tables. These can be sometimes cumbersome to calculate as for each region the technique requires a different model life table. He added that at national level the figures are consistent but not at sub regional levels.

130. Concluding, he explained that in the civil registration system the registration of deaths is done through two different types of forms by a professional. The first form is for deaths in the

13 WHO, (1992) International Classification of Diseases ISBN 92 4 154419 8, Geneva Switzerland.

hospital. The second form is for those who die at home and is usually filled by the chiefs in the villages. No significant difference in the level of reporting has been detected so far between what is collected by the chiefs of villages and what is collected by the hospitals.

Namibia:

131. In Namibia as well as in other African countries, the main sources of mortality are censuses and surveys. The 1992 and 2000 DHS's give information on the infant and child mortality along with the maternal mortality.

132. Censuses provide the information on the children ever born and on those who died. In addition in the 1998 census questionnaire there has been an attempt to classify the deaths by cause. In the census questionnaire they also ask whether the birth and the death occurred were registered. The results showed that 46% of the births were registered against 70% of the deaths. She also highlighted that the level of registration varied by region.

133. The health information system generates the number of death by cause of death whereas the civil registrar does not give information on the cause of death. In conclusion she added that another source of information was a survey done in the clinics interviewing for the prevalence of HIV/AIDS.

Nigeria:

134. The representative of Nigeria highlighted that the 1991 and the 2005 censuses do not include questions on mortality. These are included only in the post enumeration survey. The main challenge the country is facing at the moment is the collection of census data in remote areas, in particular it is difficult to get good enumerators available to travel for days to reach the region they are in charge of. Another significant challenge refers to measuring maternal mortality.
As for the civil registration the information is of poor quality and therefore not relevant to statistics.

Sierra Leone

135. The representative of Sierra Leone described both the sources for fertility and mortality statistics. He highlighted that the two major sources for mortality and fertility are civil registration and census. The country's data collection suffered a stop because of the war in 1991. As a matter of fact the latest census was in 1985 and the next census will be in December 2004. The last census has been able to provide data for the methods on children ever born children, surviving and births in the last twelve months. The orphan-hood method was used to estimate child mortality. The new census has been tested through a pilot census last year that included the same questions on mortality that were included in the 1985 census. No question on weather any deaths occurred in the household has been added to this census.

136. There is a civil registration system in place but it has not been compared with the other sources due to the fact that the register is inadequate and the information is not processed. The level of registration before the war was 60% coverage and it was mainly concentrated in the cities. At the moment it is not foreseeable when the system will be in place again as a lot of the structures were destroyed during the war.

137. Sierra Leone has not had a DHS in the last 12 months. However, an integrated household survey asking survival of children was administered.

South Africa:

138. The representative from South Africa described the data availability in the country highlighting that there has been two censuses since the dismantling of the Apartheid, one in 1996 and one in 2001. The questions included in the last questionnaire were about any recent deaths in the household in the 12 months preceding the census, with sex and age of the deceased. In addition if the deceased was a woman, it is asked whether she was pregnant at the time of death. For any other death it asked whether it was a death caused by accident or violence. He explained that this question is used in South Africa to estimate a rough level of deaths for HIV/AIDS. This question tries to capture one of the underlying causes of death. One of the main challenges for the statistical office of South Africa is to capture the causes of death and to gather the right coding. In particular the challenge is bigger for HIV/AIDS related deaths as the doctors do not register HIV in the certificates. It is easier to gather information on whether the person died from accident or violence, two of the main cause of death in the country. He explained that by plotting all the other deaths by age it is possible to have a crude indirect estimate of the level of mortality for HIV/AIDS. In addition to the above mentioned questions the orphan-hood method is also used to estimate adult mortality.

139. He also highlighted that when comparing the census and civil registration figures, the rates do not match. The problem lies with the overestimation of the mortality figures in the census data. He concluded by saying that the civil registration system has 80 per cent coverage.

Swaziland:

140. The representative of Swaziland highlighted censuses and surveys as the main sources for the estimation of mortality levels in his country. The questions asked refer to children ever born and the survival of parents. Recently the question on recent deaths in the household has been included in the census questionnaire. However the data were not published as it is not known whether they were reliable.

Uganda:

141. The participant from Uganda stated that like other countries the Ugandan censuses collect mortality information through questions on the survival of parents and on child mortality. The official method used for child mortality through the census data is the children ever born

method. In addition, mortality levels are obtained through the DHS surveys. In the last round of DHS they have tried the inclusion of a question on household deaths during the 3 months prior to the surveys but there was a problem of overestimation. The main concern of the presenter was that indirect methods do not give accurate estimates in particular in Uganda and sometimes they are the only information that gets published.

142. In Uganda, the representative explained, the estimates of mortality from surveys and censuses are done by using the variables of children ever born, birth histories as well as survival of parents. The question on recent deaths in the household is included even though no attempt is done to calculate the mortality rates. No use is done of the survival of siblings, and probably this area should be further explored in the future. The question on the survival of children ever born requests only the sex of the child. As for the maternal mortality levels they are estimated through census data.

Zambia:

143. The participant from Zambia highlighted that the *survival of child* method is used with census data. The birth histories taken from the DHS data are used to estimate mortality histories. In addition from the 1996 DHS they have obtained estimates of maternal mortality trough the sisterhood method. She added that in the latest DHS there was the inclusion of an HIV/AIDS and syphilis test conducted on a voluntary basis. As a result the question on children surviving and maternal mortality has been removed.

Zimbabwe:

144. The participant from Zimbabwe highlighted that there are two sources for mortality: censuses and surveys namely DHS. The statistics on mortality rely heavily on the indirect methods techniques. The census questionnaire includes questions on the recent deaths in the household including a question on maternal mortality, asking whether the woman died while pregnant, while giving birth or one month after birth. Surveys usually give information on under 5 mortality rates.

Estimating fertility and mortality in South Africa using the United Nations Software Package for Mortality Measurement (MORTPAK)

145. The representative of South Africa[14] gave a demonstration of the package MORTPAK for Windows developed by the United Nations Population Division using data from the 2001 South Africa census. MORTPAK for Windows provides a set of 17 computer programs for undertaking demographic analysis in developing countries, including empirical and model life-table construction, graduation of mortality data, mortality and fertility estimation, evaluation of census coverage and age distributions and population projections. These 17 demographic procedures have been assessed by the Population Division as useful for evaluating data from censuses and surveys and preparing reliable estimates of demographic parameters.

[14] Mr. Heston E. Phillips, Staistics South Africa.

146. The data of the 2001 Census of South Africa showed some unusual patterns that require further analysis. For example, the sex ratio in the mortality trend was not balanced; rather, it was skewed to the side of the males. Reason for this might have been the actually higher mortality of males; it could be also a consequence of the underreporting of female mortality. Furthermore, census data on people with one parent still alive showed that the number of people with the father still alive is lower that with the mother still alive.

147. These findings triggered an analysis of the trends of mortality and MORTPAK was used for the purpose. The data needed for MORTPAK for the input into the life table are gender, survival, mortality and probability of deaths values (M_x values were used as input for South African data), open age groups, and specific mortality data. The data are extracted from the questions on survivorship for child mortality, and survival of parents to estimate adult mortality. The process is a structured input where the q_x values are extrapolated until no survivors are left.

148. The questions reported in the 2001 South African census questionnaire refer to children surviving, the deaths in the household in the last 12 months in the house by age and sex, and, if the deceased was a woman younger than 50, whether she was pregnant, and whether the deceased died because of accident or violence. The last question is used to identify the underlying cause of death in particular to highlight deaths due to HIV/AIDS. Doctors do not report HIV/AIDS in the certificate of death as one of the cause, therefore there's need to create a proxy that would capture those deaths.

149. Looking at the plot-chart of the cause of death divided into violence or accident and other obtained with the help of MORTPAK it is possible to see that there is an increase of the probability of death in the age group 15-65 suggesting an increase in the HIV/AIDS deaths. This trend might also explain the disparity in the sex ratio of the mortality levels as HIV/AIDS is more common among man than women.

150. Concluding, he highlighted the vast improvement over earlier versions of MORTPAK. In particular this has been possible because the South African data met MORTPAK input requirements. He recommended the use of the software in developing countries in order to improve the performance of national statistical offices. In addition it was suggested that the question that tries to capture maternal mortality should include whether the woman died giving birth or at least during the month after delivery in order to capture the whole definition of maternal mortality and not simply the pregnancy period.

Data sources in Belize

151. The participant from Belize[15] introduced the status of civil registration of fertility and mortality events in her country. She highlighted that the civil registration system collects vital events on births, deaths, marriages and divorces. The first law governing the registration of

[15] Ms. Leticia Sandra Vega, Statistician, Central Statistical Office of Belize.

births, deaths, and marriages was enacted in 1885. The law authorises the Registrar General (Attorney General Ministry) to act as the ex-officio Registrar of births and deaths in the Belize District. It requires that live births be registered within 42 days after the birth (in practice, time requirement is one year). In most countries, time limit is about 14 days. She pointed out that no mention was made of the use of registration records for the compilation of national vital statistics. In addition the registration system is dedicated to the more limited, although important, purpose of issuing proof to individuals of the event of a birth, death or marriage.

152. She explained that the report on the reform of the civil registration system highlighted that the registration of births and deaths was incomplete. There were difficulties in using civil registration data to produce vital statistics. In addition the management of the system, the procedures for producing certified copies of vital events as well as the provision for storage of vital records were inadequate. For these reasons it was decided to create a National Committee on the Registration and Vital Statistics. The electronic entry of data into a computerised system was implemented, a more pro-active checking of hospital records against registrations started as well as the development of a staff manual. Finally a more efficient issuance of certified copies, including the current effort to make certifications more fraud proof was created.
Concluding the presenter pointed out that Belize has also data on fertility and mortality collected from censuses, demographic health surveys and dual record systems.

Group discussion

153. The workshop broke in three groups to discuss specific assignments related to the different techniques for evaluating mortality. There were four questions in all:

Question 1: Underreporting of recent births and deaths, particularly of infants, is a common problem with many population censuses and sample surveys across Africa. What practical steps do you recommend to remedy or ameliorate this situation?

The question triggered a constructive and lengthy discussion in all the groups. Common to all of them was the assessment that this is indeed one of the most formidable challenges faced by statistical data collections in the region. This is primarily because of cultural circumstances related to deaths, especially deaths of infants. In quite a few communities the reason for non-reporting is not forgetting that the death occurred in the household in the last twelve months, but a conscious decision not to report it. Therefore, the underreporting is deliberate and in some cases impossible to remedy.

154. In an attempt at reducing the underreporting, all the procedures and questionnaires should be customised on the basis of the targeted population, including the use of local language, familiarising with customs and traditions of the community before launching the exercise and the use of local guidance and people in the fieldwork. Also emphasised was the need for exhaustive and meticulous supervising of the staff on the field, as well as the necessity to motivate the interviewers by providing incentives but also by double-checking their work by re-visiting the households and re-filling the questionnaire. It is also necessary that the interviewers ensure that the whole household is fully briefed in regard to the purpose, content and context of the survey.

155. It was also stressed that the questionnaires themselves should be simplified; the manuals for interviewers, however, and their training need to be elaborated in detail as these are the instruments ensuring as accurate reporting as possible.

156. Participants put emphasis on the need to provide for the privacy of the interview itself, if the goal is to access the information on dead persons in the household, especially the number of deceased children. In this context, respondents must be assured that the collectors of data guarantee complete confidentiality of response.

157. All groups also emphasised the need for massive and coordinated publicity and advocacy campaign as an essential component for efficient data collection. The government should play a major role in such a campaign and all efforts should be made to avoid redundancy in data collection activities.

Question 2: It is conceded that questions on recent household deaths may be phrased and formatted in many different ways because they refer to persons not enumerated or interviewed, as well as the fact that information on the sex and age of each deceased person must be obtained. However, it is necessary that a standard format be recommended for purposes of consistency and international comparability. What format do you recommend?

158. All groups agreed that the formulation in the questions that reads "in the past twelve months" is quite inapplicable in the region, given the different measurements of time in use. It was felt that the more effective way would be to specify the starting date more specifically. One group suggested that it should be a calendar date, such as "since August last year". Another group proposed the use of a major event or religious holiday, observed by the community, such as "since last Christmas".

159. As for the formulation of the question itself, one group suggested "Did any person die in the household since (fixed date, religious holiday, major event)", while another considered that such phrasing was not sensitive enough, and suggested: "Was there any death in the household since (fixed day, religious holiday, major event)".

160. As for the remaining part of the question, the suggested format:

Question: Was there any death in the household since last Easter?

If yes, how many? _____

Name	Age	Sex
_____	____	____
_____	____	____
_____	____	____
_____	____	____

161. A discussion regarding the age of the deceased ensued, in regard whether the age in complete years should be requested, or the date of birth or both. Participants felt that local circumstances should provide guidance in that regard.

162. A note of caution was voiced in regard to requesting the name of the deceased, as in quite a few communities such a request would be considered extremely sensitive.

163. It was also noted that the location of this question in the questionnaire should be carefully considered, given the emotional component of the recollection of the deceased member of the family. It was felt that the most appropriate position would be toward the end of the questionnaire so as not to disrupt replies to other questions.

Question 3: Is it necessary for a country with 100% coverage of death registration in particular and vital events in general to have supplemental information from population censuses and/or nationally representative sample surveys?

164. The question raised a number of comments in the groups in regard of its hypothetical nature, at least for the region. Majority of participants felt that such coverage could not be attained in their respective countries.

165. In spite of that, even if achieved, a unanimous reply to the question was that the population censuses and surveys would still be invaluable for the overall monitoring of the wellbeing of the society. It was felt that the civil registration and vital statistics system, although perfectly functioning, as in this case, still need checks and balances, that is, data collection exercises that will check the accuracy of vital statistics resulting from the civil registration system.

166. It was also emphasised that, although covering a host of relevant variables, statistics originating in the civil registration system lack certain characteristics that are considered crucial for monitoring population in the region of Africa, for example, poverty or composition of households. If one were to cross-correlate demographic characteristics with socio-economic variables, she/he would need to use surveys for the purpose, as they would be the best vehicles for simultaneous collection of relevant data.

167. In addition population censuses would certainly still be needed to provide the accurate denominator for calculating demographic rates.

Question 4: How feasible would the inclusion of the following questions in the census questionnaire be:

a) *Where there any deaths in the last 12 months?*
b) *If yes, what was the age (date of birth) and sex of the deceased person?*
c) *If the deceased was a woman under 50 years of age was she pregnant at the time of death?*
d) *Did the person die through an accident or through violence?*

For the first two questions, all groups felt they already responded within the replies to the second question.

168. As for the pregnancy of the deceased woman under age 50, the participants concluded that such a question does not focus properly on maternal mortality. However in absence of other information it could be included in a modified way. A common position was that it needs additional sub-questions that would pinpoint in a more reliable way to the relationship between pregnancy and death. Suggestions included questions such as "If she was pregnant, did she passed away giving birth, or up to 6 weeks following the birth?"

169. The feasibility of incorporating a question related to accidents and violence in the census was in principle positively assessed by the participants, with a note that such a question needs to by country specific, since the occurrence of violence really differ greatly from country to country. Hence, the kind of violence should be more specifically linked to the circumstances in the targeted population.

170. The general discussion that ensued focused on the few issues that were not elaborated in the groups' discussions. Specifically, is it appropriate, given the reality on the ground in some African sub-regions, where giving birth under age 15 is quite common, to limit the question on recently died infants to female population aged 15-49? Participants felt that it would be appropriate to extend the lower age group to twelve years of age, given their experiences in the field.

171. Concluding the discussion, the Workshop adopted the following recommendations in regard to improvement of mortality statistics in Africa:

1. Questions on mortality, referring to children ever- born, children surviving and recent deaths, should continue to be included in population censuses in the region, as other sources of mortality statistics are being developed.
2. Similarly, regarding the assessment of maternal mortality by way of census, using the questions that go beyond pregnancy alone and attempt to closely relate the death to pregnancy or giving birth, should be strongly supported.
3. While collecting data with surveys, it is of crucial importance to ensure that the respondents are fully briefed regarding the content, context and significance of the survey.
4. All efforts should be made to strengthen the civil registration systems and accompanying vital statistics, as they are being acknowledged as recurrent, reliable and universal source of vital statistics in general, and mortality statistics, in particular.
5. It is also necessary to develop a master statistical plan, which will outline different statistical exercises and their time frames, thus avoiding redundancy and ensuring timely and consecutive nature of statistical data collection.
6. Health institutions offer a most appropriate environment for recording deaths and thus providing input for mortality statistics. In the context, it is necessary to improve facilities in health institutions in the region to enable setting up of these procedures.

7. The sizes of the samples used for surveys measuring mortality need to be expanded, if more accurate and representative statistics are to be obtained.

H. FIFTH PLENARY SESSION: Statistics on human functioning and disability

172. A UNSD representative[16] introduced the participants to the international, regional and national needs for the collection of data on human functioning and disability and gave an introduction to the United Nations Guidelines and Principles for the Development of Disability Statistics (2001). International needs in regard to statistics on human functioning and disability stem from the international agreements such as the Standard Rules for Equalization of Opportunities, the World Programme of Action Concerning Disabled Persons and the forthcoming International Convention on the Protection and Promotion of the Rights and Dignity of Persons with Disabilities. The African decade of Disabled Persons and its major goals stress the significance and needs for accurate and reliable statistics in this area.

173. The major sources of data used to obtain human functioning and disability statistics are censuses, national sample surveys and administrative records, and the fact that each of these sources is used for fertility and mortality assessment as well, emphasises methodological similarities. When applied to human functioning and disability each of these sources has advantages and disadvantages. At this point, the workshop split into three working groups, discussing the sources used in the participating countries, and the advantages and challenges of using censuses and sample surveys for the collection of statistics on functioning and disability (see paragraph 179).

174. An overview of recent developments in measurement issues with regard to statistics on functioning and disability emphasized the need for a neutral, clear and unambiguous language, especially pointing out recent findings that words such as “disability”, “long-term” and “handicaps” are viewed as extremely negative and thus tend to lead to underreporting. The use of multiple response categories should be applied whenever possible. As for the definitions of persons with disabilities, it would be preferable to use specific questions on activities instead of generic questions on disabilities or difficulties, since respondents tend not to identify themselves as being disabled.

175. The International Classification of Functioning, Disability and Health (ICF) is a useful framework for collection of disability statistics, specifically the activity- and participation-dimensions of the ICF. The ICF has been developed to address the needs for statistical monitoring and measuring of human functioning, thus it should be used in putting together these statistics at the national level. In addition to developing IFC as an international standard suitable for national application, an effort regarding the development of specific questions for use in population censuses is now underway. Under the mandate of the United Nations Statistical Commission, a group of experts is elaborating possible solutions for capturing disability and functioning through population censuses.

[16] Ms Malin Synneborn, Associate Expert, Social Statistics Section.

176. In concluding, an overview of the current situation in the participating countries, using the pre-workshop assignments was provided. The higher prevalence rates of persons with disabilities in the cases where countries had used activity- and participation-approaches as opposed to impairment-approaches further outline the importance of adopting the ICF approach in order to capture the actual size of this phenomenon.

177. Furthermore, of the fourteen countries that were participating from the African region, ten countries collected data on persons with disabilities, the majority using the census as its major source. Of the two countries did not collect any data on persons with disabilities, namely Sierra Leone and Kenya, the former announced at the meeting that it will for its first time include questions on disability in its forthcoming census in December 2004.

Group discussion

178. The workshop recognised the census as the most common data source for collecting data on functioning and disability in the region. It was also noticed that the vast majority of countries are using impairment-approaches in their data collection, and that the word "disability", which has been shown to be depreciatory, thus leading to underreporting, is still used in almost all the countries data collection.

In the context of data collection on functioning and disability the group recognised:

1. The need for advocacy and sensitization of respondents for a deeper understanding on the benefits and outcomes of the data collection;
2. The importance of involving users and persons with disabilities in the development of data collection instruments as well as in other activities in the planning process;
3. The advantages in terms of less underreporting when using an activity and participation-approach and a neutral language in a measure;
4. The country-specific situations that has to be taken into account when developing a measure;
5. The need for large sample sizes when collection data through sample surveys to capture an adequate number of persons with disabilities.
6. That even if data in administrative records usually refer only to persons with severe impairments, there might be useful information to collect through these sources. This data might then be compared with data from other sources.

I. SESSION VI: The collection of fertility, mortality and disability statistics at international level

179. A representative of UNSD[17] introduced the participants to the United Nations *Demographic Yearbook* System. The *Demographic Yearbook* system consists of a set of instruments and procedures for collecting, processing and disseminating national population statistics for the United Nations and the world. Its most visible product, the *United Nations Demographic Yearbook (DYB)*, is a unique source of national population statistics, for over 230 countries and areas in the world. Published annually, since the 1948, when the system was established, the *Demographic Yearbook* provides statistics on population size and composition, fertility, mortality, infant and foetal mortality, marriages, divorces and international migration.

180. In recent years a number of different outputs of the system (CD Rom, Internet presentation, databases) have been introduced, in response to significant changes that the statistical community has witnessed in at least three major categories: (a) increasing demand for relevant, accurate and up to data statistics; (b) changes in concepts, methods and standards for collection and dissemination of statistics, and (c) new approaches in information technology that are triggering sweeping changes in the processing, storing and retrieving of numerical data.

181. The challenge, therefore, that the *Demographic Yearbook* system is facing is to effectively address these changes, with the major goal of ensuring that the official national population statistics reported to the United Nations through the *Demographic Yearbook* system remain comprehensive, relevant, timely, and readily accessible to interested Member States, researchers, libraries and the public at large.

182. In his presentation the speaker stressed on the importance of using the Demographic Yearbook tabulations as an example for the compilation of demographic and social data that countries could follow. He then highlighted the level of reporting in the last decades by the countries present at the workshop, which could be generally assessed as one on the lower end of the response rates. In conclusion he invited the participants to share their experiences with the replies to the Demographic Yearbook questionnaires.

Discussion

183. In general, the countries participating in the workshop stated that, in principle, they did not experience any major problems filling in the Demographic Yearbook Vital Statistics questionnaire with data available at the national level. However, a few issues were mentioned in this regard:

- The lack of collaboration between different agencies and regional offices within the countries when gathering the information for the questionnaire;
- Poor or no information on urban and rural residence;
- The lack of personnel within the statistical offices limiting both data processing and proper and timely reply to the questionnaires.

17 Mr. Srdjan Mrkic, Acting Chief, Demographic Statistics Section.

- Countries stated that they do not have sufficient data for filling in the questionnaire, for example Ethiopia and Kenya. One country, Sierra Leone, also mentioned that since data are not processed and analyzed it is hard to fill in the questionnaire.

- The participants stressed the importance of arranging workshops like the current one as an opportunity for countries to meet and discuss the tables and the data required. Many also mentioned the need for development of their vital registration system in order to have adequate and timely data.

- Some participants complained about the heavy burden on countries to fill in questionnaires from the many international organizations and others and asked for this to be harmonized at the extent possible.

- The participants also asked the United Nations Statistics Division to send out the Demographic Yearbook questionnaires with available figures already filled in. The electronic version of the questionnaire was very much appreciated in this regard.

J. CONCLUSIONS

184. The workshop took note that in the sub-Saharan African countries, the main sources of fertility and mortality statistics are population censuses and sample surveys. Partial and weak coverage of the civil registration system greatly limits the use of these data for statistical purposes. Those countries that collect information on disability rely primarily on censuses.

185. The methods most often used to calculate fertility and mortality statistics are the indirect ones, such as the Brass method, based on the number of children ever born and children surviving and on recent births. The birth history method is also used with data obtained from socio-demographic surveys such as the Demographic and Health Survey. Among the issues identified in the production of fertility, mortality and disability statistics in the represented countries (with the exception of Mauritius), participants underlined:

a) The lack of collaboration among the key actors, i.e., civil registration, the national statistical office and the ministry of health.
b) The underexploitation of the existing civil registration data.
c) The lack of information on the coverage of births and deaths registration;
d) The general lack of awareness of the importance of collecting data on functioning and disability.
e) The use of an impairment approach when collecting data on disability rather than the recommended activity and participation approach.
f) The United Nations Demographic questionnaires are a useful guidance for national data collection practices as they provide a valuable overview of statistics that are required for decision-making purposes

Several recommendations were highlighted during the meeting. Among these, are:

1. **Building national capacity**

Building national capacity for statistical data collection and dissemination on fertility, mortality and disability statistics should be of a major concern for the decision-makers in the region. Despite all the efforts in increasing national statistical capabilities in the field of demographic and social statistics, the level of statistical development in the region is not yet adequate. Therefore, the participants highlighted the necessity of investing in statistical infrastructure, training and recruitment.

2. **Strengthening collaboration between the agencies at national level**

There is the need for strengthening cooperation among agencies and institutions involved in the collection and processing of official statistics on fertility, mortality and disability. Statisticians need to initiate partnership and protocols for exchanging data with the civil registration authorities. While such an arrangement is in many countries specifically sanctioned by legislation, in practice it is seldom operational. Protocols would establish fixed formats and procedures for data transfer as well as responsibilities for data editing and corrections of errors. Statisticians, as it was pointed out, have in-depth experiences with data editing and checking and

can, therefore, significantly contribute to the accuracy of the processing of administrative records, which would, in turn, benefit civil registration authorities.

3. **Improving civil registration systems**

Civil registration has been recognised as a potential source of fertility and mortality data even when incomplete. Utilisation of incomplete registration data for fertility and mortality estimates by national statisticians could however increase the demand for information derived from civil registers, and lead to users advocating for the improvement of the registration system. The use of these data would require establishing the process of transferring the information for statistical purposes from the civil registration offices to the national statistical office.

4. **Improving existing data sources**

The importance of the fieldwork in the quality of census and survey data was underscored. In order to improve the quality of the information collected there is the need for better training of interviewers and enumerators, who should be aware of the rationale behind the data collection and closely supervised. Fieldworkers should not be too overloaded and should be well paid to assure the quality of their input. The need for maximising the exploitation and use of all available sources for checking and comparative purposes was also highlighted. Even in countries with complete civil registration systems there is the need for periodical population censuses and sample surveys to complement and validate the information obtained through civil registration systems. Age reporting was recognised as fundamental for the production of reliable statistics on fertility, mortality and disability. It was suggested that, where possible, a legal proof of age as provided by a birth certificate or ID cards, where available and/or reliable, should be requested, or a local calendar used to ease the task of the respondent in the recollection of the timing of the event.

5. **Sensitisation of the public to the importance of collecting data on fertility mortality and disability**

Publicising the goals of future data collection, breaking cultural barriers, could help in optimising the level and quality of response. While collecting data through surveys, it is of crucial importance to ensure that the respondents are fully briefed regarding the content, context and significance of the survey. It is also necessary for statistical authorities to provide feedback to respondents on the survey undertaken in the community.

6. **Initiate workshops that would bring statisticians and registrars together**

The importance of the presence of both statisticians and registrars in workshops cannot be overstated. The benefits of such an approach were clearly visible during this workshop where a constructive discussion between statisticians and a registrar contributed to a better understanding of the data collection issues.

7. **Better use of existing data**

Statisticians should make a better use of already collected data for analytical purposes; also they should concentrate on collecting statistics that allow computation of the most informative and reliable indicators. Participants felt that the data at the disposal of the statisticians are not fully utilised in terms of analysis and calculation of the indicators. Therefore

more training on collection, analysis and dissemination of statistics would be required as well as raising awareness of the availability of data,

Specific conclusions on the session on fertility

1. There is a need to investigate methods of estimation of fertility other than children ever born and recent births from censuses and birth histories from sample surveys. However, participants recognised that the use of other traditional techniques discussed during the workshop, such as reverse survival, own-children method and reconstructed birth histories, might be restricted by the difficulty of calculating reliable mortality estimates and identifying the non-own or fostered children, respectively. The question on children ever born should include information on the sex of child and on the presence or absence of the child in the household.

Specific conclusions on the session on mortality

1. Questions on mortality, referring to children ever- born and children surviving, should continue to be included in population censuses in the region, while other methods in particular civil registration, to obtain mortality statistics were being tested.
2. Similarly, in order to assess the level of maternal mortality through censuses, the death of women in reproductive age should be further investigated to determine whether the death was pregnancy related.
3. The size of the sample of surveys measuring mortality needs to be increased if more accurate and representative statistics are to be obtained.
4. The method based on recent deaths in the household through censuses should be more widely used with the following precautions:

a. Clear defined reference period: where the calendar year is not commonly used, a local calendar of events might be more appropriate.

b. There is need to use appropriate wording in local language when asking the question on recent deaths. Death is generally a very sensitive issue in different cultural settings. The knowledge of local culture is absolutely necessary if reliable data on deaths are to be obtained.

5. Use of the following and similar approaches and principles for preparing set of questions to estimate current mortality through censuses[18]:

a. "Were there any deaths in the household since (fixed day, religious holiday, major event)".

If yes, how many? _____

Name	Age	Sex
_____	____	____
_____	____	____
_____	____	____
_____	____	____

[18] For a more detailed description of the comments see paras 155-157

b. If the deceased was a woman under 50 years of age did she die while pregnant, giving birth or within six weeks after delivery?

c. Did the person die through an

i. accident or violence
ii. any country-specific other major cause of death
iii. other

Specific conclusions on international data collection through the Demographic Yearbook system

1. In order to facilitate communication between United Nations and the national statistical authorities, there is a need to establish a focal point at the national level for communicating and exchanging the information with the United Nations Demographic Yearbook system. This will greatly reduce the time needed for the questionnaire to reach the reporting officer and at the same time it will establish communication channels.
2. The workshop noted that not all data requested by the Demographic Yearbook questionnaires are available in statistical offices or are not processed regularly, which calls for the increasing of national statistical capacities as per general recommendations of the workshop.
3. There is a need for the Demographic yearbook questionnaire to be disseminated in electronic format as it is found to be much more useful for filling data in. Also the questionnaire should be disseminated in the last quarter of the current year for the previous reference year.
4. The workshop recommended that the Population Division of the United Nations should consult with national statistical offices more frequently related to the production of the United Nations population estimates and projections.

ANNEX I: Preworkshop assignment

United Nations Workshop on
Improving Statistics on Fertility, Mortality and Disability in Africa

Accra, Ghana, 14 – 18 June 2004

Pre-meeting assignments

Review of sources and methods for fertility and mortality statistics

The purpose of this questionnaire is to collect information on the sources and methods for obtaining fertility and mortality statistics used in your country. Please return the completed questionnaire before 31 May, 2004 at the following address by email if possible or by fax or mail:

Att. Ms. Francesca Coullare
2, UN Plaza DC2-1534
10017 New York, NY, USA
Tel. 1 212 963 4950
Fax. 1 212 963 1940
workshop@un.org
cc. coullare@un.org, synneborn@un.org

Please provide detailed answers to the questions. Participants should consult the civil registration officers in their country to answer some questions. When necessary, please attach additional sheets of paper.

Name, title, address and country of official completing this questionnaire:

PART I: SUMMARY INFORMATION ON FERTILITY AND MORTALITY STATISTICS

1. Indicate the main uses of fertility and mortality statistics. Check applicable items:
    a. General health care programmes,
    b. Mother and child health care programmes
    c. Development programmes
    d. Family planning programmes
    e. Vaccination campaigns
    f. Administrative purposes

g. Demographic analysis
h. To establish health conditions and in health assessment
i. Other (specify) _____

2. Indicate the main users of fertility statistics:

3. Indicate the main users of mortality statistics:

4. Is there a legal framework defining responsibilities for the collection, processing and dissemination of fertility and mortality statistics?

Yes ☐ No ☐

a. If Yes, which agency has the primary responsibility for the:
   1. collection of these statistics _____
   2. processing of these statistics _____
   3. dissemination of these statistics _____

b. If Yes, please provide us with a copy of the law.

5. Indicate the source/s of data currently used to obtain fertility and mortality statistics:

	Fertility	Mortality
a) Civil registration		
b) Population Censuses		
c) Sample surveys		

d) Dual record system		
e) Other (please specify)		

6. Indicate if current available fertility and mortality statistics satisfy users' needs and if not explain why.

7. Indicate if current available fertility and mortality statistics are obtained from multiple data sources, if these statistics are coherent and if not explain why.

PART II: DATA SOURCES IN DETAIL

A – Civil registration:

1. Does a civil registration system exist in your country?

   Yes ☐ No ☐

2. If YES, does civil registration register Live births and/or Deaths?

	Births	Deaths
Yes		
No		

If you replied YES to at least one event, please answer to questions 3 to 20, otherwise go to section B – Sample Surveys.

If possible, copies of registration forms for Live births and Deaths should be brought at the meeting.

3. Which national agency and ministry are responsible for civil registration?

Agency	
Ministry	

4. When was the original civil registration law enacted?

	Live Births	Deaths
Give date		

5. When was the civil registration law implemented?

	Live Births	Deaths
Give date		

6. Does the system cover all segments of the population in the entire country?

   Yes ☐ No ☐

   If NO, please give a brief description of the coverage:

   a) Which geographic areas are not covered:

b) Which population groups (ethnic or national groups) are not covered:

c) Any other categories that are not covered

7. Is civil registration used as a source for statistics on:

	Fertility	Mortality
Yes		
No		

If YES to at least one of the event, please answer to questions 8 to xx, otherwise go to section C – Population Census.

8. Which national agency and ministry are responsible for compiling vital statistics from civil registration?

Agency	
Ministry	

9. What are the legal provisions taken to preserve confidentiality of civil registration data?

10. Indicate if statistics on fertility and mortality are published, their frequency and the title of the last publication containing these statistics?

	Fertility	Mortality
Published		
Frequency		
Title		

11. Are vital rates calculated from civil registration data on Live births and Deaths?

	Live Births	Deaths
Yes		
No		

If YES,

a. Please indicate the source used for the most recent population estimates used as denominator in the computation of current vital rates:

Continuous population register	
Population census (give year)	
Sample survey (give year)	
Other, specify	

b. Please indicate the technique used for the time adjustment in the population estimate (when the base data is not secured annually by a population register):

Interpolation	
Extrapolation	
Demographic equation	
Other, specify	

12. Are data on Live births and Deaths tabulated by date of occurrence or/and registration?

	Date of occurrence	Date of registration
Live births		
Deaths		

13. Are data on Live births and Deaths tabulated by place of occurrence or/and place of registration?

	Place of occurrence	Place of registration
Live births		
Deaths		

14. Is the information on place of usual residence (of mother for births and of deceased for deaths) registered?

	Live births	Deaths

Yes		
No		

a. If YES to at least one event, is this information used in the calculation of fertility and mortality rates?

Yes ☐ No ☐

15. Indicate the level of accuracy of reporting of age of mother in case of Live births and of the deceased in case of Deaths and specify if any study to evaluate the age quality have been carried out.

Age of mother

Age of deceased

16. List fertility and mortality statistics obtained from civil registration (use additional sheets if necessary).

17. Factors that hamper the production of fertility and mortality statistics from civil registration (use additional sheets if necessary):

a. Administrative (describe)

b. Technical (describe)

c. Other (describe)

19. Indicate if the levels of coverage of Live births and Deaths have been estimated in your country in the past ten years?

	Live births	Deaths
Yes		
No		

20. If YES for at least one event, indicate the most recent estimate of coverage for each event, the year to which this estimate refers and the method of evaluation used.

a. Level of coverage and year of reference

	Percentage of coverage	Year to which this estimate refers
Live births		

Deaths		

b. Method of assessment

B – Sample surveys:

1. Have sample surveys been undertaken to obtain fertility and mortality statistics in the last 10 years?

	Fertility	Mortality
Yes		
No		

If YES, please indicate the number of survey conducted in the last 10 years and provide the following information for the last two surveys.

	Survey 1	Survey 2
2.Title of survey		
3.Date		
4.Coverage:		
a. Geographic areas		
b. Population		
5.Sample fraction percentage:		
6.Type of operation		
c. Single-round survey		
d. Multi-round survey		
e. Sample survey combined with continuous registration (dual record system)		
7.Method of sampling		
8.List fertility and mortality statistics obtained		

9. Have these estimates been evaluated. If Yes, How?		
10. Select technique(s) used to obtain estimates:	Reverse Survival	*Survival of Children ever Born*
	Own Children Method	*Birth Histories*
	Reconstructed Birth Histories	*Recent Household Deaths*
	Children Ever Born	*Survival of Parents*
	Recent Births	*Survival of Siblings*
	Birth Histories	
Others, specify		
11. Indicate if age accuracy has been evaluated and which techniques have been used.		
12. Indicate if survey results have been published?		
YES, give date		
NO		
13. Indicate name of institution responsible for the collection, processing of data and dissemination of results.		

Please provide us the relevant sections of the questionnaires used.

Please make use of additional sheets of paper if needed.

Please indicate in maximum two pages the advantages and disadvantages of fertility and mortality statistics obtained from sample surveys.

C - POPULATION CENSUSES:

1. Have population censuses been used to obtain fertility and mortality estimates?

	Fertility	Mortality
Yes		
No		

If YES, please provide date of latest census used to collect such information and answer questions 2 to 7 below:

	Fertility	Mortality
Census date		

	Fertility	Mortality
2. Statistics obtained		
3. Indicate if and how fertility and mortality estimates have been evaluated.		
4. Select technique(s) used to obtain estimates:	Reverse Survival	*Survival of Children ever Born*
	Own Children Method	*Birth Histories*
	Reconstructed Birth Histories	*Recent Household Deaths*
	Children Ever Born	*Survival of Parents*
	Recent Births	*Survival of Siblings*
	Birth Histories	

Others, specify		
5. Indicate if and how age reporting has been evaluated		
6. Indicate if statistics have been published		
YES, give date		
NO		
7. Indicate name of institution responsible for the collection, processing of data and dissemination of results		

Please, provide us the relevant sections of the questionnaire.

Please make use of additional sheets of paper if needed.

Please indicate in maximum two pages the advantages and disadvantages of fertility and mortality statistics obtained from population censuses.

ANNEX II: List of participants

United Nations Workshop on
Improving Statistics on Fertility, Mortality and Disability in Africa

14-18 June 2004, Accra, Ghana

Participants	Country	Address
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ANNEX III: Organisation of work

United Nations Workshop on Improving Statistics on Fertility, Mortality and Disability in Africa

Monday, 14 June 2004

Registration of participants (8:00 – 9:00 a.m.)

Morning session (9:00 – 12:30)

09:00 - 10:30	Opening Break
10:30 - 11:00	Logistics and getting acquainted Purpose of the workshop
11:00 – 12:00	*Session 1: The uses of fertility and mortality statistics their sources* Presentation: Uses and sources for fertility and mortality statistics (UNSD) Discussion
12:00 – 12:30	*Session 2: Civil registration as a source of fertility and mortality data*. Presentation: Importance and functioning of a civil registration system and its use as source of fertility and mortality data (UNSD)
12:30 - 13:30	Lunch break

Afternoon session (13:30 – 17:30)

13:30 - 15:00	*Session 2: Civil registration as a source of fertility and mortality data (cont.)*. The experience of Mauritius Presentation: An example of the use of incomplete civil registration system for the calculation of vital rates (UNSD) Discussion
15:00 – 16:00	Session 2 : Group discussions
16:00 – 16:30	Break
16:30 – 17:30	Presentation of conclusions of group discussions in plenary Discussion

Tuesday, 15 June 2004

Morning session (8:30 – 12:30)

8:30 - 10:00	*Session 3: Censuses and Sample Surveys as a source of fertility statistics* Presentation: Techniques to estimate fertility statistics from censuses and sample surveys: (RIPS)
	Discussion
10:00 – 10:30	Break
10:30 – 12:30	Country experiences and discussions
12:30 - 13:30	Lunch break

Afternoon session (13:30 – 17:30)

13:30 - 15:30	Session 3: Group discussions
15:30 – 16:00	Break
16:00 – 17:00	Presentation of conclusions of group discussions in plenary
	Discussion

Wednesday, 16 June 2004

Morning session (8:30 – 12:30)

8:30 - 10:00	*Session 4: Censuses and Sample Surveys as a source of mortality statistics* Presentation: Techniques to estimate mortality statistics from censuses and sample surveys: (RIPS) Discussion
10:00 – 10:30	Break
10:30 – 12:30	Country experiences and discussions
12:30 - 13:30	Lunch break

Afternoon session (13:30 – 17:30)

13:30 - 13:45 Presentation of MORTPAK (United Nations Software Package for Demographic Measurement)

13:45 - 15:30 Session 4: Group discussions

15:30 – 16:00 Break

16:00 – 17:30 Presentation of conclusions of group discussions in plenary

Discussion

Thursday, 17 June 2004

Morning session

8:30 - 12:30 Field trip to visit a civil registration office in Accra

12:30 - 13:30 Lunch break

Afternoon session (13:30 – 17:30)

13:30 - 15:00 *Session 5: Sources of disability statistics*
Presentation 1: Uses and sources of disability statistics (UNSD)
Presentation 2: Review of questions, indicators and quality assessment methods for each major source of disability data. (UNSD)

Discussion

15:00 – 15:30 Break

15:30 – 16:30 Session 5: Group discussions

16:30 - 17:30 Presentation of conclusions of group discussions in plenary

Discussion

Friday, 18 June 2004

Morning session (8:30 – 12:30)

8:30 - 10:00	*Session 6: Compilation of fertility, mortality and disability statistics at national and international level* Presentation: Guidelines for the dissemination of official statistics and overview of fertility and mortality national statistics disseminated through the *Demographic Yearbook* system. (UNSD)
	Discussion
10:00 – 10:30	Break
10:30 – 12:30	*Session 6: Compilation of fertility, mortality and disability statistics at national and international level (cont.)* Presentation: Dissemination of disability statistics: overview of the *Demographic Yearbook* draft questionnaire on disability statistics. (UNSD)
	Discussion
12:30 – 14:00	Lunch break

Afternoon session (14:00 – 16:00)

14:00 - 16:00	*Session 7: Conclusions and Recommendations*: Presentation and discussion of the summary of the workshop's proceedings: conclusions and recommendations on how to improve the quality of fertility, mortality and disability statistics in African countries.
	Evaluation of the workshop
16:00	Closing