

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

Sources of Vital Statistics¹

M. en D. Ana Margarita Chávez Lomelí
Directora de Estadística
Dirección Regional Centro Norte
Mexico

¹ The text is presented without formal editing.

Sources of Vital Statistics

1. The aim of this paper is to present some guiding ideas for the discussion of sources of vital statistics: civil register, population censuses, sample surveys, sample registration areas and other administrative records as health records; accordingly to the principles for the recollection and compilation of vital statistics: universal coverage, continuity, confidentiality and regular dissemination. For each source, an explanation on how each principle is satisfied will be explained.

Civil Register System:

2. This source is the most recommended for obtaining vital statistics, it fulfill the characteristics of universal coverage, continuity, confidentiality and regular dissemination of data. In despite of other sources of vital statistics, this system is based upon legal regulation which makes it compulsory and provides sanctions for those who fail to comply with the registration law.

3. Civil registration system provides information for all vital events (births, deaths, foetal deaths, marriages and divorces), in a high level of geographical and administrative disaggregation.

4. Among the disadvantages, civil registration involves the participation and relationship between offices, in this case those associated to Vital Statistics System, statistics and civil register office, but once the system is fully established, it becomes the most cost-effective way to obtain information, particularly of those small areas.

5. For those countries where the civil register system is incomplete or does not exist, alternative sources can be used to obtain vital statistics. In addition, these sources also can be used to evaluate system quality which is particularly important matter where there is a system in the process to consolidate.

Population censuses

6. Taking as a starting point the traditional population census approach², some of the principles listed above such as universal coverage, confidentiality and even regular dissemination have been completed. Nevertheless, censuses are taken, most commonly, every 10 years; therefore, timeliness could not be satisfied as vital statistics require, this is monthly, quarterly and/or annually.

² It comprises the actively collecting information for individuals and households on a range of topics at a specified time (Principles and Recommendations for population and housing censuses, rev. 2). This approach fulfills the essential features of a census: Individual enumeration, universality within a defined territory, simultaneity and defined periodicity.

7. On the other hand, census information introduces non sampling errors such as memory lapse, mis-statements of age, omission of specific population groups as a result of household recollection (case in point, recluse population and homeless). Finally, population censuses, obtain information thru surviving people, just like other information sources, consequently information referring to those deceased can't be retrieved such as age or place when they give birth, marital status, etc.

Household sample surveys

8. Detailed information can be identified as main advantage for household sample surveys; it can be focused in vital events to estimate demographic parameters using questions that can be more detailed than those used in population censuses. As a result, information requirements can be fulfilled with statistics more accurate than those that can be obtained thru censuses. Another advantage is that, survey is smaller than a census, therefore operative control and interviewer qualifications are potentially stronger hence statistical quality improves.

9. Despite interviewer qualifications and better controlled processes, it is true that this source also contains faults due to memory lapse, under coverage, omission, etc., however it is expected that this will be in a lower level. On the other hand, household survey introduced sample errors, that should be quantify and used among the estimates parameters.

10. One of disadvantages surveys present within continuity and regular dissemination is that it might be they're not drawn periodically or they're a onetime event; hence, the statistical information can hardly be used as an evaluation and monitoring instrument. On the other hand, despite statistical samples allow the outcome among large geographical and/or administrative regions, the gathering data in small areas is not always possible, hence does not comply with the universal coverage.

Records from health services

11. The value of these records lies on vital events (births, deaths and foetal deaths) in most cases, has to be certified by a medical authority, becoming the proof of occurrence of such vital event, nevertheless, not all events will carry this type of proof. For this reason, universal coverage is not complied.

12. It is true that there is a relationship between the events that occur in a medical facility and those certificated. When computerization and data transmission are considered at this point of process within medical facilities, the use of these records may provide statistical information earlier than civil register system and can be used as an "in advance" indicator, although this will be partial.

13. To ensure that all concepts and classifications should be equivalent in order to guarantee information comparison, it is recommended to define responsibilities among offices involve, considering that statistical office who should rule about this topics.

14. Equally important is to verify if there is regulation that establishes compulsory of certification. Also, whether legal framework considers protection of privacy of individuals

and confidentiality of information, if it doesn't, arrangements should be done in way to guarantee it.

Final considerations

15. For any source of information, there always will be pros and cons. Whereas Civil Registration System is recommended, its function can be affected by different factors and data quality may vary. Others sources or information can be used to improve quality, completeness, and such as evaluation method.

16. No matter which source of information we use, there are challenges that go beyond the source itself:

- Defining information needs. It is necessary to look forward to attend new information needs due to social and cultural changes like emerging ways to conceptualize legal unions and rights associated, or to attend mayor health issues as prevalence of some type of cause of death.
- Technological changes that maybe able to contribute to obtain better vital statistics information and may help to improve vital statistics system (computerization).
- Migration effect in those countries where there are an important migration flow. Information could be bias as a consequence of the introduction of behavioral patterns.