Preparation of a vital statistics report

Workshop on data analysis and report writing for civil registration based vital statistics

Nadi, Fiji
30 January – 03 February 2023
Introduction to civil registration

Civil registration is the process by which governments maintain information about the identity and civil status of individual members of the population. This is achieved through the continuous, permanent, compulsory and confidential recording of vital events such as births, deaths, marriages etc.,

There two main purposes for which civil registration is undertaken:

1. The creation of legal records and documents as required by the law. These documents play a crucial role in realisation of individual human rights
2. The production of statistics about important demographic changes within the population - referred to as "Vital Statistics"
Importance of civil registration

- Provides a **legal identity**.

- CRVS is also critical in protecting/facilitating the realisation of important human and civil rights. For the individual these include:
  - The right of a child to be supported to live past their first, and fifth birthdays
  - The right of a child to be supported to live into adulthood, and for young adults to be supported to live through to old age
  - The right to the protection afforded by a system that investigates deaths properly in order to understand and respond to deaths that did not occur due to natural causes
  - Birth registration establishes a legal identity that enables individuals to prove who they are to be able to participate in society, including claiming other rights

"The child shall be registered immediately after birth and has the right to a name and nationality..."

International Covenant on Civil and Political Rights, Convention on the Rights of the Child, Article 7 – Signed by all countries of the Pacific
The importance of CRVS data

A well-functioning CRVS system is the best source of continuous and up-to-date information on birth, death and population statistics

- **Statistics for health and development.** Necessary for:
  - monitoring the health of a population
  - identifying health priorities and evaluating health and program impacts
  - access to real-time information on population size and structure
  - Providing data for the calculation of population-based development indicators
  - Support governments to effectively respond to emergencies and natural hazards

- **Modelled data is not good enough**
  - Uses assumptions based on what is happening elsewhere
  - Can only measure what we think should be happening – not what is really changing over time

- **Census data**
  - Is important, but has limitations
Key uses of CRVS data in the Pacific

**HEALTH PLANNING**
- Identifying Priorities – NCD’s / Maternal and Child health
- Targeting Health Programs – Populations at risk
- Service Delivery - Immunisations / Populations / Midwives etc
- Monitoring and Evaluation – Funding / International Agreements

**OTHER GOVERNMENT SERVICES**
- Education – planning for number and location of teachers
- Social Security – i.e. age of retirement
- Population Statistics

**IDENTITY & SECURITY**
- Passports
- Electoral Rolls
- Disaster Planning (populations at risk and follow up)

**LAND RIGHTS & INHERITENCE**
Vital statistics

• Vital statistics are important in any country in supporting development, planning and policy making across many sectors. For example:
  i. Statistics on birth and death can help in monitoring the health of a population including identifying priorities and health program impacts such as with the Covid –19 Pandemic
  ii. Vital statistics enable calculation of population-based development indicators needed for planning in sectors such as education, health, infrastructure etc.

• Vital statistics can be derived from numerous sources e.g., Census, Surveys, civil registration and health information systems. Civil registration is recognised by the UN as the most ideal source of vital statistics.

• In the absence of vital statistics, modeled data is used which applies assumptions and can only measure what we think should be happening – not what is really changing over time.
Importance of harnessing registration records for vital statistics

Civil registration records are a unique source of vital statistics because:

1. They provide data on a continuous basis unlike other sources such as surveys and censuses.
2. They provide data that can be disaggregated to the lowest level of geography.
3. It is a cost-effective solution to produce vital statistics as it requires fewer resources than conducting surveys.
4. It can provide precious feedback to civil registrars and help them identify system-wide issues to be corrected.
Data availability

In many countries CRVS systems do not function properly and have low levels of registration completeness. In addition due to incomplete records many countries are not able to produce civil registration based vital statistics.

Even in countries with well-functioning systems, civil registration data may not be analysed as there is a reliance on alternative sources of vital statistics.

Ensuring improvements in registration and the availability and reliability of vital statistics is a key regional goal. It is therefore critical that civil registration data is:

1. Routinely made available for statistical use (internally and externally),
2. Analyzed,
3. Reported, and
4. Used to inform decision makers.
Expected outcome of the course

Through this workshop, you will be developing some of the main inputs for a draft vital statistics report for your country based on your data set which will provide fundamental demographic measures needed for evidence-based decision-making.
Vital Statistics Report

Format

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Why publish a vital statistics report?

• Most important reason: the need of the public, government and civil society for transparency and accountability
• The production and availability of a vital statistics report is a key step towards stimulating and guiding civil registration improvements
• Putting vital statistics into the public domain demonstrates transparency and openness to scrutiny
  • While this does expose weaknesses, limitations and omissions in the available data, publishing whatever data are available can help build trust in the data in the long-term
• At the national level, vital statistics that reflect the complete state of the civil registration system may stimulate the government to increase investment for improving the system.
Key sections of a vital statistics report

1. Summary of Main Indicators
2. Executive Summary
3. Chapters covering:
   a. Introduction/ background
   b. Methodology
   c. Births and Fertility
   d. Mortality
   e. Causes of Death
4. Conclusions and recommendations
Summary of Main Indicators

- A summary of key development indicators presented at the beginning of the report—useful in providing a quick summary of the demographic attributes of a country and performance of the civil registration system

<table>
<thead>
<tr>
<th>Population, residents only</th>
<th>Crude Death Rate (CDR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth registration completeness</td>
<td>Under 5 mortality rate</td>
</tr>
<tr>
<td>Death Registration completeness</td>
<td>Infant mortality rate</td>
</tr>
<tr>
<td>Total number of births</td>
<td>Neonatal mortality rate</td>
</tr>
<tr>
<td>Births attended by skilled personnel</td>
<td>Maternal deaths</td>
</tr>
<tr>
<td>Sex ratio at birth, M:F</td>
<td>Maternal mortality ratio</td>
</tr>
<tr>
<td>Crude Birth Rate (CBR)</td>
<td>Life expectancy at birth</td>
</tr>
<tr>
<td>Total Fertility rate</td>
<td>Life expectancy at age 40 (e/40)</td>
</tr>
<tr>
<td>Adolescent birth rate</td>
<td>Adult mortality rate, (45q15)</td>
</tr>
<tr>
<td>Total number of deaths</td>
<td>Probability of dying from a NCDs</td>
</tr>
<tr>
<td>Natural increase</td>
<td>Proportion of ill-defined deaths</td>
</tr>
</tbody>
</table>
Executive Summary

• An executive summary is known to be the most important part of any report. It is a very useful communication tool for decision makers.

• An executive summary provides a summary of the report. It should enable readers get acquainted with the content of the report without having to read it all.

• It should mainly present:
  • Key findings from each of the main themes of the report
  • Associated policy implications
  • Methods applied
  • Limitations of the data
I. Introduction/ background
  • Importance of vital statistics in the context of development
  • About the country: population size, structure, distribution…
  • About the civil registration system and other sources of birth and death data …..

II. Methodology
  • Source(s) of data used, how it was collected, limitations of the data including the completeness of data source
Report chapters/sections: Births and fertility

I. Basic tabulations including births by:
   - Period of birth (years)
   - Place of Birth (hospital, home)
   - Age of Mother,
   - Birth weight,
   - Gestational age,
   - Place of occurrence and mothers place of usual residence
   - Population/ ethnicity group

II. Key fertility indicators: Crude Birth Rate (CBR), Age-Specific Fertility Rates (ASFR), Total Fertility Rate (TFR)
I. Basic tabulations including:
   - Number of Deaths,
   - Deaths by: age and sex, ethnicity, place of occurrence and place of usual residence

II. Key mortality indicators:
   - Crude Death Rate (CDR) and Age Standardised Mortality Rate (ASMR),
   - Age Specific Mortality Rate
   - Life expectancy at birth
   - Measures of Infant and Child Mortality,
   - Measures of adult mortality
Report chapters/ sections: Causes of death

1. Leading causes of death by sex
2. Proportional mortality by age and sex
3. Cause specific mortality
4. Probability of dying from specific causes (NCDs)
5. Proportion of ill defined causes of death/ deaths with no cause

(Although CoD won’t be covered during this week’s workshop, your facilitators will be happy to guide you through this after the workshop)
Report chapters/ sections: Conclusion and recommendations

- Key findings of the report and the potential policy implications

- Recommendations – key areas that the country should focus on, based on the key findings
Examples of vital statistics report