UNITED NATIONS ESCAP
Economic and Social Commission for Asia and the Pacific

STATS BRIEF

February 2019 | Issue No. 17

STATISTICS DIVISION

Dissemination and Communication of Vital Statistics

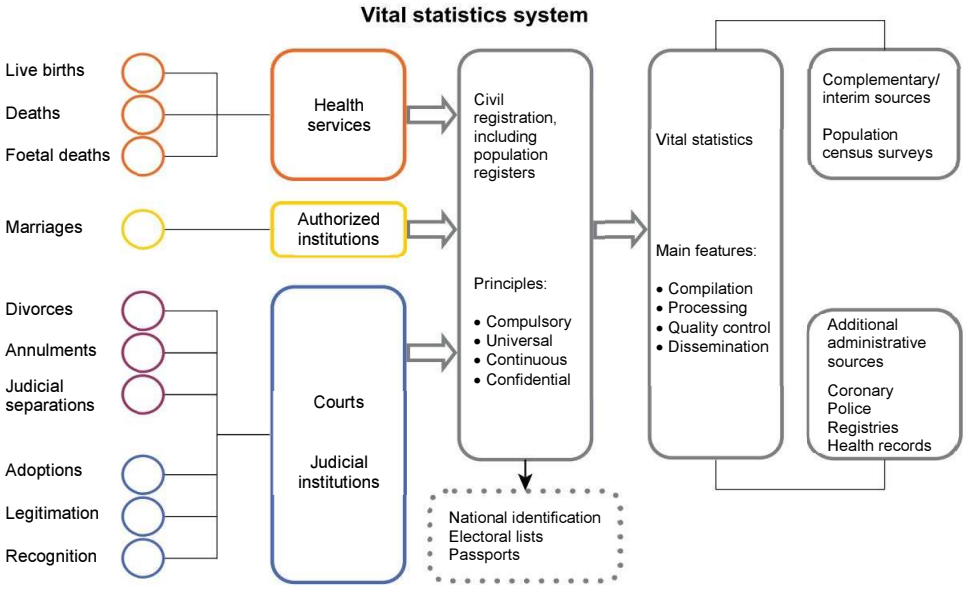
Vital statistics have become increasingly prominent as primary national information resources on the socio-economic situation of population groups and communities, for policymakers and planners across multiple sectors. Reliable and timely information generated from vital statistics is essential for contributing to more effective planning, efficient resource allocation and accurate evaluation and monitoring. However, in the absence of good communication and dissemination plans, such valuable information bears the risk of becoming outdated, being poorly delivered or misinterpreted. Building an effective communication and dissemination strategy is essential to broaden dissemination to target audiences and maximize the utilization of vital statistics data.

Vital Statistics

The United Nations defines vital statistics as statistics of vital events including births, deaths, foetal deaths, marriages, divorces, annulments, judicial separations, adoptions, legitimations, and recognitions in a lifetime of a person as well as corresponding relevant characteristics of the events and persons concerned.[i] The most common way of collecting information on these events is through civil registration, which refers to continuous compilation of information on vital events occurring within a country. Other demographic data collection methods such as population censuses, demographic sample surveys, and sample registration areas may also be used in countries where data from civil registration are insufficient to estimate vital statistics.

Vital statistics along with their interpretation and analysis are crucial for setting targets, planning, monitoring and evaluating various social and economic policies and programmes, including primary health care, social security, family planning, maternal and child health, nutrition, education and public housing. Vital statistics are also used in the measurement of key demographic indicators, such as life expectancy at birth and infant mortality rate; the preparation of population estimates and projections; studies of mortality, fertility and nuptiality; and the construction of life tables.

Figure 1: Vital statistics system



Source: Principles and Recommendations for a Vital Statistics System, Revision 3 (United Nations publication, Sales No. E.13.XVII.10).

[i] *Principles and Recommendations for a Vital Statistics System, Revision 3* (United Nations publication, Sales No. E.13.XVII.10).

This Stats Brief is issued without formal editing. It is prepared by Panita Rattanakittiaporn, Research Assistant, Population and Social Statistics Section, ESCAP Statistics Division under the overall guidance of Gemma Van Halderen, Director, ESCAP Statistics Division. Views expressed herein do not necessarily reflect ESCAP or any UN agency.

Dissemination and Communication

Data dissemination is the last stage of a vital statistics system (Figure 1). It is the process of distribution or transmission of vital statistics data, to the public, usually in the form of statistics but sometimes also in the microdata format. At minimum, as recommended by the United Nations, regular vital statistics dissemination should comprise "(a) the provision of total monthly or quarterly summary counts of vital events on a time schedule prompt enough to provide information for health interventions and population estimation programmes, administrative uses or other needs and (b) the production of detailed annual tabulations of each type of vital event cross-classified by its demographic and socioeconomic characteristics."[ii]

Vital statistics data should be designed and generated in various styles suiting the needs of the different target audiences at local, national and international levels. Dissemination can be done through printed publications, radio, television and newspapers or via internet using texts, tweets, blogs, and websites.

Communication functions play an essential role at this stage. A strategic communication can not only convey data availability to diverse target audiences for making greater use of it, but also promote openness and transparency in data dissemination. Statistical agencies should develop communication strategies to present information clearly, accurately, meaningfully and aiming at supplying 'the right data in the right format to the right audience'.

The revolution of information and communication technology (ICT) has contributed to a huge development of data dissemination and communication. Now an individual with a portable device can access vital statistics from everywhere. It, moreover, offers a tailor-made solution to response an individual's specific need and interest. It is very important that statistical agencies provide adequate and appropriate information and explanation such as metadata, methodologies, limitations and definitions accompanying the statistics to avoid any misunderstanding or misinterpretation.

Defining Target audiences

The audiences of vital statistics can be broadly divided into two groups; (a) government officials and policymakers who are directly involved in civil registration, statistics, health and justice; and (b) other users including donors, development agencies, academics and researchers, media, private businesses, and other government officials.

Target audiences must be identified before releasing vital statistics. Besides selecting appropriate communication channels, statistical agencies should ensure they use language, narratives, graphics and presentations matching their audiences. The communication channels recommended for different target audiences are shown in Table 1.

Table 1: Suggested communication channels for different audiences

Government officials and policymakers	General public
• Dashboards • Face-to-face meetings • Policy briefs, brochures, executive summaries • Public websites	• Magazines • News media • Radio and TV • Web-based media
Program managers	**Technical and development agencies**
• Monthly/quarterly reports • Executive summaries • Audiovisual presentations • Public websites	• Full annual reports • Audiovisual presentations • Public websites • Brochures
Civil society, NGO, and so on	**Academic researchers**
• Fact sheets • Brochures • Public websites	• Technical reports • Special topic articles • Research databases • Websites

Source: https://crvsgateway.info.

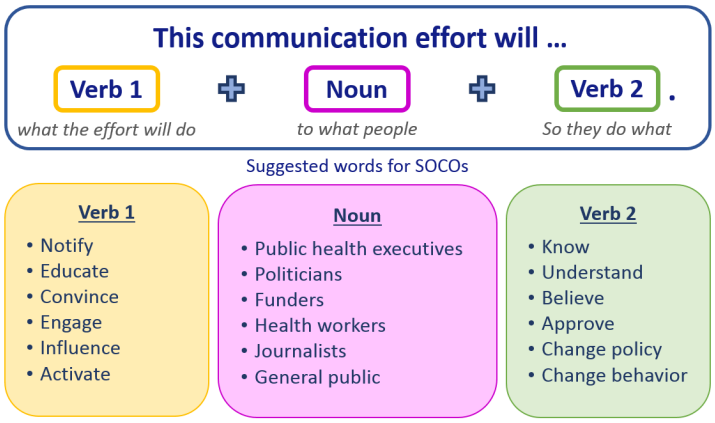
Single Overarching Communications Outcome (SOCO)

The Single Overarching Communications Outcome is a concept developed by the Centers for Disease Control and Prevention (CDC)'s media relation office as part of the preparation of the communication process. It is one of many communication techniques widely used to help health organizations as well as statistical agencies develop effective strategic communication.

The concept of Single Overarching Communications Outcome can be described as 'one outcome or change' an organization wants to see as a result of their communication or products. One core message supported by data-driven facts should be created and transmitted to the target audiences with the intention to ultimately contribute to achieving the expected outcome. A good Single Overarching Communications Outcome should be objective, concise and precise. Figure 2 gives an example of a basic structure together with proposed words to use.

[ii] Ibid.

Figure 2: Single Overarching Communications Outcome structure



Example: *This communication effort will convince doctors in public hospitals to decrease the number of unspecified causes of death by 40 percent in next 2 years.*

Data visualization

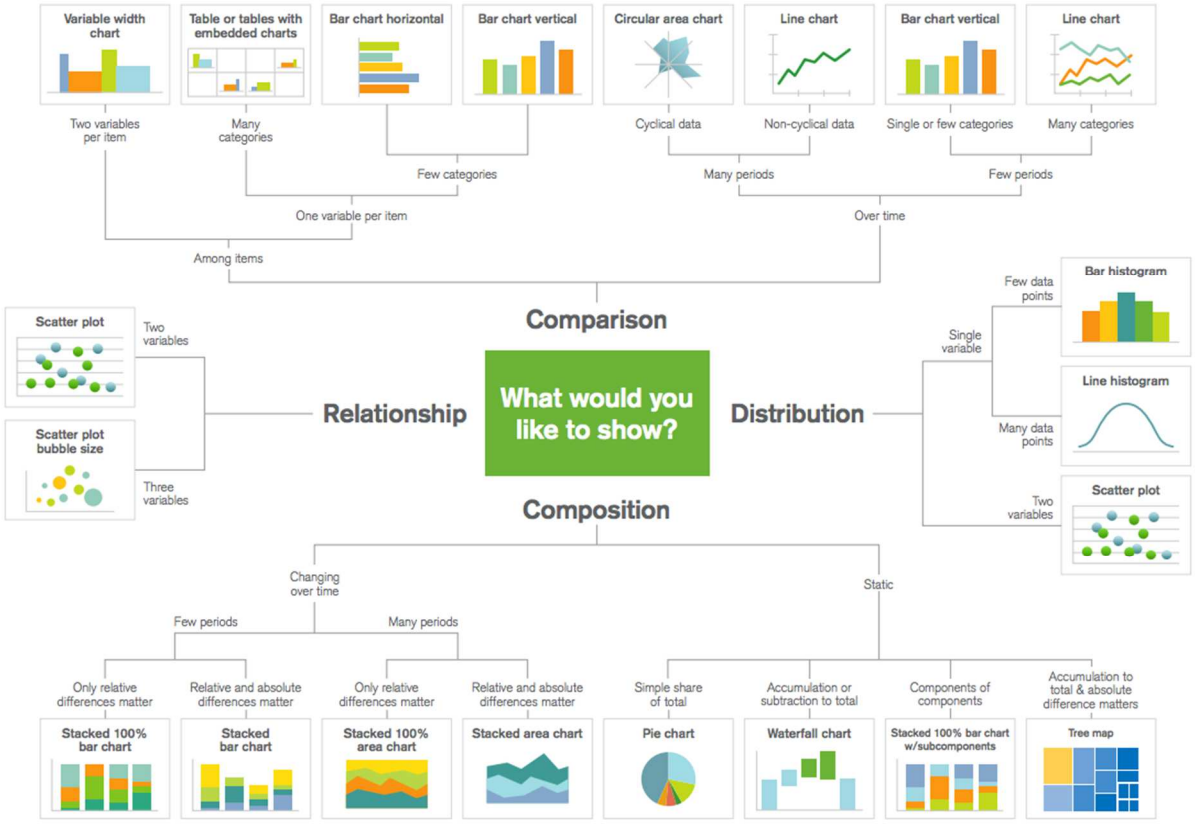
Data visualization is a useful tool to assist statisticians in communicating their data-driven messages by presenting vital statistics clearly and efficiently, and thus achieving their Single Overarching Communication Outcome. It makes complex data more accessible, understandable and usable. Moreover, audiences can see trends, outliers, and data patterns more quickly and easily. Effective data visualization should both engage the audiences and improve their understanding in depth. To achieve this, fundamental skills in data analysis, storytelling and graphic designing are required (Figure 3).

Figure 3: Basic skills for data visualization

Quality data analysis is essential to generate good data visualization. Statistical agencies need to interpret vital statistics in a story-format for their audiences. Most visualization of data analysis express either patterns or relationships in datasets. If a pattern or relationship in the data can be visualized clearly, the audiences should instantaneously understand the importance of the pattern or correlation.

Storytelling is an important part of data visualization to build emotional, social and cultural connections between data and the audiences. The visualization should include information about the who, what, when, where and how of the data presented. A good data visualization should tell a story from the audiences' point of view and use language and ideas they understand.

Figure 4: Suggested charts for different methods of data analysis



Source: http://bigdata.black.

It is highly recommended to keep the visualization design as simple as possible. Displaying too many conflicting graphic elements or too much information can easily distract or confuse the audiences. The design can also play with colour features. Using appropriate colours can draw attention, set the tone of the message, and even direct the focus. However, statisticians should be aware of the convention associated with a colour as well as possible positive or negative connotations.

Data visualization can take a number of shapes and forms, from simple tables and charts to more complex scatterplots, thematic maps, animated population pyramids and infographics. Tables are generally used to show quantitative data or a specific measurement, while charts are used to communicate patterns or relationships in the data for one or more variables. Detailed explanation together with relevant interesting issues of 72 chart types can be learned from the Visual Vocabulary.[iii] Figure 4 illustrates a brief of recommended charts for different data analysis methods.

There is a variety of visualisation software products available, which enable statistical agencies to effortlessly create and produce a wide range of suitable charts for different audiences and for different purposes.

ESCAP and Bloomberg Philanthropies

To improve vital statistics dissemination and communication, the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), collaborated with Bloomberg Philanthropies - Data for Health Initiative (D4H) to design a workshop entitled "Workshop on Dissemination and Communication of Vital Statistics Data",[iv] from the 10th to the 14th of December 2018, in Bangkok.

The workshop was the final activity of Phase I of the 'Project to Strengthen the National Capacity in Producing and Disseminating Vital Statistics from Civil Registration Records in Asia and the Pacific', which is designed to support the implementation of the Regional Action Framework on Civil Registration and Vital Statistics in Asia and the Pacific, particularly Goal 3 on production and dissemination of vital statistics. In continuation of the prior two activities, which focused on conducting data analysis and drafting a national vital statistics report, the workshop concluded the activity series by building capacity of the country participants[v] to develop a strategic dissemination and communication plan of vital statistics for their own countries to effectively reach target audiences and expand the use of vital statistics.

Workshop participants learned of basic principles and techniques for effective communication and dissemination of vital statistics and exchanged ideas, information and experiences. They also developed a variety of communication products including strategic communication plans, verbal pitches, long-form persuasion presentations, visualization designs, infographics sketches, and future work plan.

At the end of the workshop, the participants provided extremely positive feedbacks. "I achieved a lot of useful knowledge in order to use in work, especially communication." and "All sessions are useful, and infographic is very interesting." are examples of good comments received.

With the great outcome of Phase I and good feedbacks from participating countries, ESCAP and D4H agreed to continue their collaborations for Phase II following the same path, to cover six additional countries in the region. A range of activities will take place until March 2019. Updated information will be posted on the ESCAP Statistics Division website.[vi]

References

National Center for Health Statistics [NCHS] [2015]. Training Course on: Civil Registration and Vital Statistics Systems.

United Nations, Department of Economic and Social Affairs [United Nations] [2014]. *Principles and Recommendations for a Vital Statistics System, Revision 3*. Sales No. E.13.XVII.10.

United Nations Economic Commission for Europe [UNECE] [2009]. Making Data Meaningful Part 2: A guide to presenting statistics.

United Nations Economic Commission for Europe [UNECE] [2011]. Making Data Meaningful Part 3: A guide to communicating with the media.

World Health Organization [WHO] [2012]. Strengthening civil registration and vital statistics for births, deaths and causes of death: Resource kit.

For more information regarding ESCAP's work in statistics development please visit:
http://www.unescap.org/our-work/statistics

Previous issues of Stats Brief:
https://www.unescap.org/resource-series/stats-brief

Contact us: stat.unescap@un.org

[iii] https://ft.com/vocabulary.

[iv] https://www.getinthepicture.org/news/workshop-communication-and-dissemination-vital-statistics-data.

[v] Participating countries included eight countries; Bhutan, Georgia, Malaysia, Maldives, Mongolia, Myanmar, Timor-Leste and Vietnam.

[vi] https://www.unescap.org/our-work/statistics/civil-registration-and-vital-statistics.