



# Using civil registration records for vital statistics

The most important by-product of civil registration is its use for vital statistics. A universal and well-maintained civil registration system is recognized by the United Nations Principles and Recommendations for a Vital Statistics System as the best source of information on vital events.<sup>11</sup> This feature is unique to civil registration systems. Other systems conferring identity documents do not have the recording of demographic and health information as a prerequisite and thus have a significant lesser value for statistics. Using civil registration records is a cost-effective solution to produce vital statistics as it requires fewer resources than conducting surveys. Additionally, compared to the use of surveys or censuses for vital statistics, civil registration records can help improve the timeliness, accuracy, coverage, granularity and completeness of vital statistics.

The production of vital statistics needs to be integrated in the objectives of the civil registration system to ensure the collection and transfer of accurate, complete and timely information for statistics. In return, using registration records for the production of vital statistics also benefits civil registration. Through the validation and analysis of

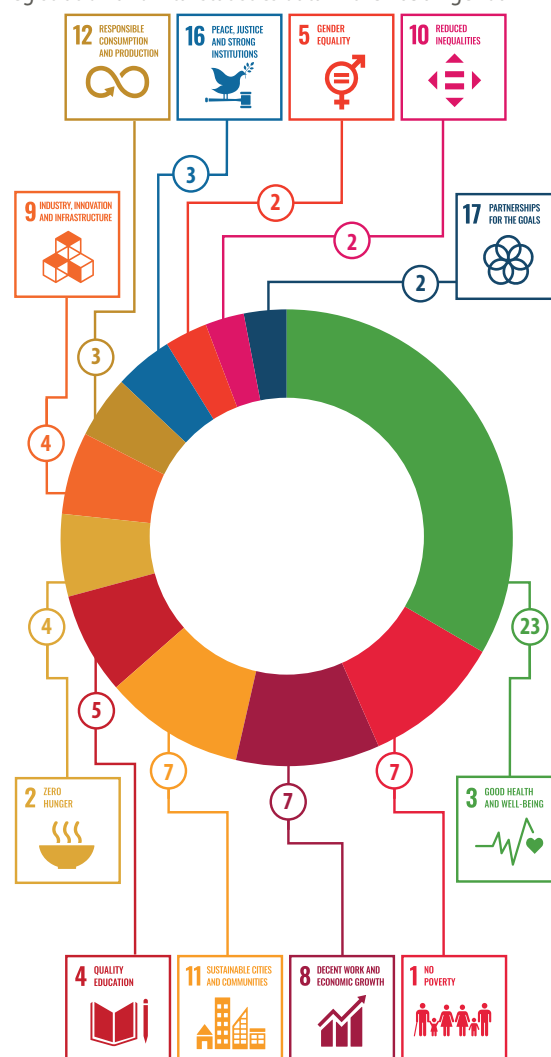
<sup>11</sup> United Nations (2014). *Principles and Recommendations for a Vital Statistics System*. Revision 3. Available at <https://unstats.un.org/unsd/demographic/standmeth/principles/M19Rev3en.pdf>.

the data statisticians can provide precious feedback to civil registrars and help them identify system-wide issues to be corrected. In the end, this will not just improve the data, but also the civil registration process and lead to better governance.

Timely statistics disaggregated by causes of death and other demographic characteristics are crucial to design, implement and monitor public health policies as well as detect emerging health crises, such as COVID-19. They are highly relevant for monitoring the 2030 Agenda, with 67 indicators benefiting from civil registration and vital statistics data (Figure XII).<sup>12</sup> They are needed to report on indicators such as infant and child mortality and the adolescent birth rate, as well as for calculating the denominators for a wide range of population-based targets and indicators. Data on causes of death from CRVS systems are also required to directly report on other indicators of the SDGs, such as maternal mortality, road accident deaths, deaths from communicable and non-communicable diseases and more. Complete and timely vital statistics provide policymakers with data on which to base and justify policies and SDG implementation plans.

Goal 3 of the Regional Action Framework focuses on the production and dissemination of accurate, complete and timely vital statistics on births, deaths and cause of death based on registration records. It underlines the benefits of linking civil registration to the production and quality assurance of vital statistics. Goal 3 has five targets directly linked to the production and dissemination of vital statistics from civil registration records. Targets 3A and 3B focus on the production of statistics respectively on births and deaths using registration records or other valid administrative sources. Producing

Figure XII: Number of indicators benefiting from civil registration and vital statistics data in the 2030 Agenda



Source: Samuel Lantei Mills, Carla Abouzahr, Jane Hak Kim, Bahie M. Rassekh, Deborah Sarpong (2017). *Civil registration and vital statistics (CRVS) for monitoring the Sustainable development goals (SDGs)* (English). Washington, D.C.: World Bank Group. Available at <http://documents.worldbank.org/curated/en/979321495190619598/Civil-registration-and-vital-statistics-CRVS-for-monitoring-the-Sustainable-development-goals-SDGs>.

Note: The total sum of indicators per Goal is 69, higher than the 67 unique indicators because some appear in several Goals.

**Timely statistics are highly relevant for monitoring the 2030 Agenda, with 67 indicators benefiting from civil registration and vital statistics data.**

<sup>12</sup> Mills, Samuel Lantei; Abouzahr, Carla; Kim, Jane Hak; M. Rassekh, Bahie; Sarpong, Deborah (2017). *Civil registration and vital statistics (CRVS) for monitoring the Sustainable Development Goals (SDGs)* (English). Washington, D.C.: World Bank Group. Available at <http://documents.worldbank.org/curated/en/979321495190619598/Civil-registration-and-vital-statistics-CRVS-for-monitoring-the-Sustainable-development-goals-SDGs>.



## Malaysia: Resilience of Vital Statistics production during the COVID-19 pandemic

Malaysia has made important progress in the production of vital statistics in the country over the past few years. The Department of Statistics Malaysia (DOSM) and the National Registration Department (NRD) have a long-standing relationship and are continuously improving their collaboration to facilitate the sharing of birth and death registration records to produce vital statistics. As a result, the data exchange protocols between the two agencies gradually evolved from hardcopy documents to monthly online transfers since 2016. This has allowed DOSM to produce quarterly statistics on births and deaths and to shorten the timeframe in producing annual vital statistics from 24 months to less than 12 months.

However, the COVID-19 pandemic had a disruptive effect on this system. The offices of NRD had to close due to the implementation of the Movement Control Order to prevent the spread of the virus, since birth and death registration are not included as essential services in the Federal Constitution of Malaysia. Registration offices were fully closed from mid-March to mid-May 2020, and later only available by appointment. NRD also offered an extension of up to 90 days to register births and deaths after the order was lifted. As a result, from mid-March 2020 birth and death registration data accessible by DOSM represent only a fraction of the expected births and deaths. In parallel to the NRD, the Ministry of Health registers and keeps records of births within and outside its facilities as well as deaths within its facilities and the Royal Malaysian Police keep records of deaths outside of health facilities. These records are transmitted online to NRD for issuance of birth and death certificates. Unlike NRD, both agencies continued operating during the Movement Control Order. DOSM only has access to the records consolidated and verified by NRD, and it has no direct access to the records of the Ministry of Health and the Royal Malaysian Police. These data could not, therefore, be used for vital statistics.

DOSM still produced its Vital Statistics report for the first quarter of 2020, but in the absence of complete data, it resorted to estimation methods based on time-series data from the past 10 years, as well as methods more specific to the situation. For example, DOSM considered the drop in the number of road accidents and the late registration of births and deaths due to the Movement Control Order. The department was able to use past experience, especially the adjustments performed on death data in Sabah Province, to compensate for underregistration.

The pandemic, by bringing an unexpected challenge to civil registration processes in many countries, highlighted the need for resilient systems such as the one in Malaysia. This is especially critical considering the importance of accurate and timely data to respond to crises. The prompt action from DOSM is proof that human resources are a key element to a well-functioning CRVS system, with the application of complex demographic models to ensure the continuity of vital statistics. However, there is a need to further strengthen the collaboration with the stakeholders and the potential to have access to their data in times of emergency. CRVS stakeholders in Malaysia have learned the importance of enhanced CRVS data sharing and subsequently a data sharing agreement was formalized between the Ministry of Health and DOSM, which will certainly lead to a more resilient CRVS system.

statistics is important, but their impact will be increased tenfold if they are timely, quality assured and regularly made available in the public domain. It is underlined by targets 3F and 3G on the dissemination of vital statistics on births and deaths within one calendar year and vital statistics on causes of death within two calendar years. Beyond releasing tables in electronic format annually, there may be need for more information than just tabulations. A vital statistics report, including an analysis of subnational completeness and of the main trends, fills that gap. For this reason, the Regional Action Framework includes target 3H on the release of vital statistics.

Although not included in the Regional Action Framework, statistics on other vital events such as marriages are important too and should be produced by countries based on registration records in countries where the registration completeness of these events is high.

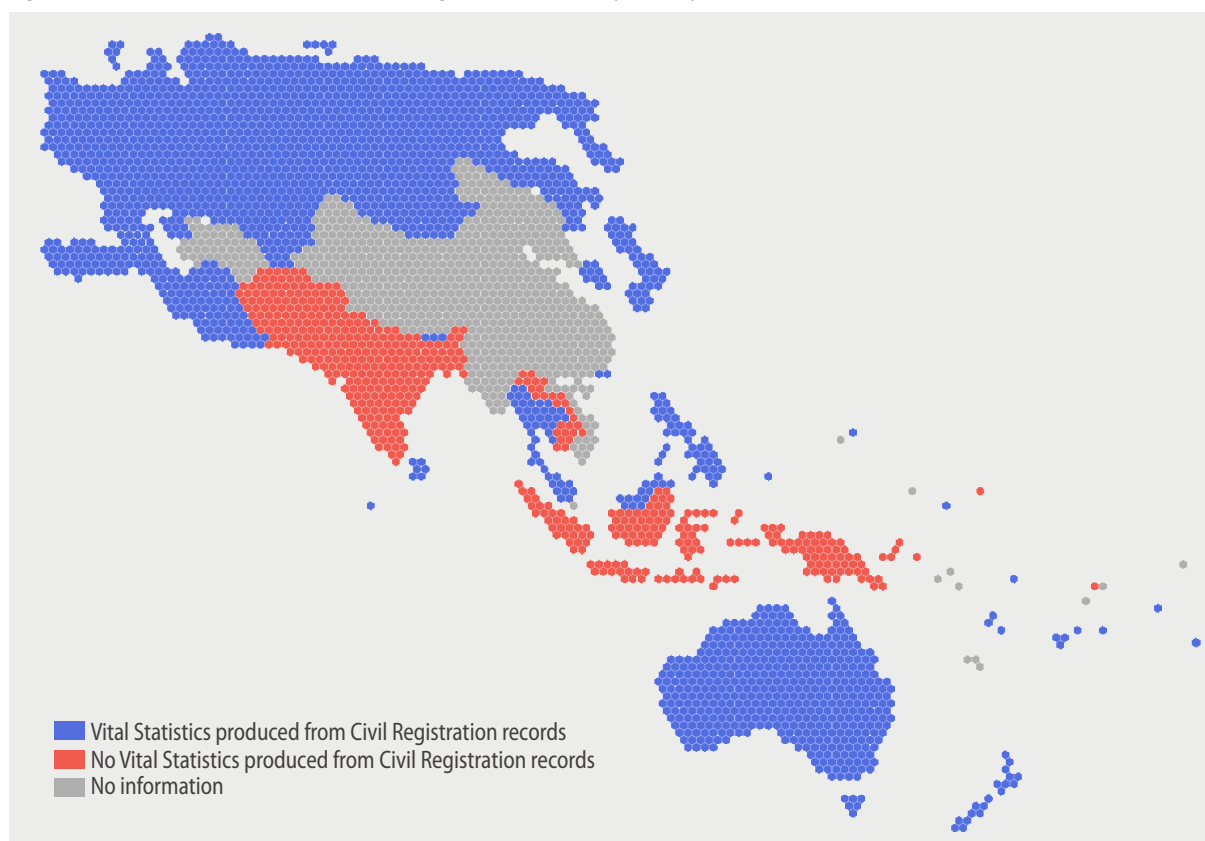
### Are registration records used for the production of vital statistics?

With rising civil registration completeness in the region, an increasing number of countries are able to use registration records to produce vital statistics. Thirty-two countries with high civil registration completeness reported using birth and death registration records for vital statistics.

Nevertheless, 17 countries have yet to achieve their target of using registration records for vital statistics and disseminating them in the public domain. These countries are located in South and South-West Asia, South-East Asia and the Pacific. Fourteen of them aim to do so by the end of the Decade with some having already initiated the work. Guidelines for the preparation of a vital statistics report have been developed to support countries to produce and publish vital statistics.<sup>13</sup>

<sup>13</sup> For more information on the guidelines, please consult Vital Strategies, United Nations Economic Commission for Africa, United Nations Economic and Social Commission for Asia and the Pacific, and Statistics Norway (2020). *Production of a Vital Statistics Guide*. Available at: <https://getinthepicture.org/resource/production-vital-statistics-guide-rev-1>.

Figure XIII: Production of Vital Statistics from registration records by country in Asia and the Pacific





**Twenty-eight countries in Asia and the Pacific reported releasing statistics on causes of death within two calendar years. Of the 19 remaining countries, 14 reported aiming to produce and disseminate statistics on causes of death using registration records by the end of the Decade.**

**Are vital statistics based on civil registration released in the public domain in a timely manner?**

Vital statistics are necessary for evidence-based decision-making, for example to plan for new schools or to monitor the effectiveness of road safety campaigns on road fatalities. Their use is enhanced by their timely release in a format easily accessible to the user. Almost all countries producing vital statistics reported disseminating their tabulations on births and deaths in the public domain in an electronic format within one calendar year. Exceptions include Fiji, Maldives and Vanuatu, which are doing it beyond one calendar year or in the form of a vital statistics report published on an ad hoc basis.

Due to the time needed for coding medical certificates of causes of death, assigning the cause of death for cases requiring the involvement of the coroner and to check cause of death information, it generally takes longer to release statistics on causes of death using registration records as the primary source than to release other vital statistics. Twenty-eight countries in Asia and the Pacific reported releasing statistics on causes of death within two calendar years. In addition, Fiji and Vanuatu produce statistics on causes of death, but they disseminate them along with the rest of their data in their vital statistics reports on an ad hoc basis.

Of the 19 remaining countries, 14 reported aiming to produce and disseminate statistics on causes of death using registration records by the end of the Decade.

The dissemination of vital statistics can also take the form of a report, which is an important step in improving CRVS systems. It can include detailed analysis of vital statistics providing the user with more information about demographic trends. It is also an important element in the development of vital statistics in countries which are starting to use civil registration records. In that case, a vital statistics report provides a unique opportunity to present the state of the CRVS system by providing an analysis of completeness at subnational levels. In return, these findings will help the civil registration office to identify regions needing improvement and create a positive feedback loop. Twenty-seven countries reported already publishing a vital statistics report and 17 more countries aim to publish one by the end of the Decade.

Dissemination practices have also changed recently in many countries. According to the Regional Action Framework, countries are meant to release these statistics annually and within one calendar year, however many are going further and releasing key vital statistics such as the number of births or deaths on a quarterly or monthly basis. This trend towards more timely releases was further enhanced during the COVID-19 pandemic as there was a need for almost instant information on excess mortality (number of deaths above the threshold of what would be expected). For example, Australia and New Zealand started releasing preliminary weekly data on the number of deaths at the beginning of the pandemic.

**What can be done to improve vital statistics from civil registration records?**

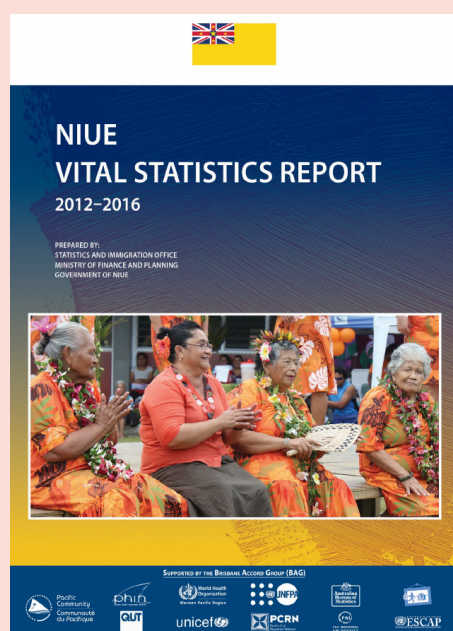
The accuracy, completeness and timeliness of vital statistics is dependent on the accuracy, completeness and timeliness of civil registration records and the medical certification of causes of death. Nevertheless, statisticians do have a part to play in the improvement of CRVS

**Box  
11**
**Improving vital statistics production and dissemination: the examples of Georgia and Niue**


The production and publication of vital statistics is largely dependent on the completeness of civil registration, and thus it is among the areas many countries still need to tackle by the end of the Decade. This means that highlighting positive examples is important to ensure all targets are reached by 2024. Georgia and Niue are among such examples, having improved their systems in the past few years.

In Georgia, a series of reforms made between 2003 and 2017 reshaped the CRVS system as a whole to make it more efficient. These changes mostly consisted in removing barriers to registration and facilitating the transfer of information between administrations, especially between the Public Service Development Agency, in charge of civil registration, the National Center for Disease Control and Public Health, and Geostat, the national statistical office. Coupled with initiatives to ensure better data quality, such as the use of personal identification numbers to avoid duplicates and the verification of ICD codes with the ANACONDA software, these reorganizations have enabled Geostat to easily access more complete and accurate data. As a result of this progress, in 2017 Geostat published its first vital statistics report for the year 2015 with the support of Bloomberg Philanthropies Data for Health Initiative and ESCAP. It has since published a report annually while cutting short the delay, with the 2019 report published in September 2020. Furthermore, a large number of tables of vital statistics are available online.

Niue shares a similar success story in a different context. The island country has managed to develop a well-functioning vital statistics system thanks to good coordination between its administrative offices and with the help of the Pacific Community and the Brisbane Accord Group. A first vital statistics report covering 1987–2011 was published in 2015 by the Niue Statistics Office with support from the Ministry of Health and the Civil Registration Office, followed in 2017 by a report covering 2012–2016. Detailed updates on births, deaths and marriages are also now published biannually. The general recommendations for the proper functioning of vital statistics systems were adapted due to the small size of the population and the statistical uncertainty that comes with it. For example, vital statistics reports are published on a five-year basis and ICD has been introduced through the shortened General Mortality list to allow for grouping and easier interpretation. Collaboration with New Zealand has also been formalized to better register and report the vital events of Niueans occurring in New Zealand.







**Vital statistics from  
civil registration  
records are essential to  
provide disaggregated  
information on the  
population and ensure  
no one is left behind.**



systems. It is crucial that vital statistics are considered in the management of civil registration. Civil registration, health and statistics authorities should all work together to ensure the information collected in the registration forms covers the topics recommended by the United Nations Principles and Recommendations for a Vital Statistics System,<sup>14</sup> is accompanied by a filled-out medical certificate of cause of death, and that all the necessary information is transferred securely and in due time to relevant stakeholders.

As explained earlier, the analysis of civil registration records for vital statistics provides civil registration offices with feedback on the completeness and quality of the records, which once addressed will improve vital statistics. For this reason, countries should use civil registration records for vital statistics even when they are not complete to provide the civil registration office with an analysis of completeness at subnational levels. This will guide them in improving the civil registration system, as Timor-Leste did with its first vital statistics report released in 2017.<sup>15</sup>

Further, a statistical analysis of completeness using secondary sources, such as surveys or health records, or the use of indirect demographic methods can help identify subgroups of the population with low civil registration rates. As explained in the previous two chapters, many countries have already achieved high level of completeness, but this does not mean everyone is registered. Such analysis will therefore support one of the implementation steps of the Regional Action Framework, namely the assessment of inequalities in access to the CRVS system experienced by subgroups of the population.

Finally, the COVID-19 pandemic highlighted the need for more timely vital statistics. Many countries in the region are already publishing vital statistics annually and within one or two calendar years, complying with the targets of the Regional Action Framework. Nevertheless, more frequent releases would go towards meeting the ever-increasing needs of the users.



14 United Nations (2014). *Principles and Recommendations for a Vital Statistics System*. Revision 3. Available at <https://unstats.un.org/unsd/demographic/standmeth/principles/M19Rev3en.pdf>.

15 General Directorate of Statistics (2017). *Births and deaths statistics report, 2014–2015*. Available at <https://getinthepicture.org/sites/default/files/resources/Timor-Leste%20Births%20and%20Deaths%20Statistics%20Report%202014-2015.pdf>