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Compendium of Good Practices: Harnessing Civil Registration and Vital Statistics (CRVS) Systems in **Conflict, Emergencies, and Fragile Settings**



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Harnessing Civil Registration and Vital Statistics (CRVS) Systems in **Conflict, Emergencies, and Fragile Settings**

OVERVIEW

INTRODUCTION

The first two decades of the 21st century saw a significant increase in crises and emergencies due to conflict, climate, and disease. Today, as we continue to experience the COVID-19 pandemic, no country or statistical system has been left untouched. Despite the hardships, life in conflict, emergency, and fragile situations goes on – people are born, marry, divorce, and die. In these contexts, civil registration and identification are vitally important, even as significant strains are placed on these systems. The hazards faced by people in conflict, emergency, and fragile contexts could weaken or destroy entire civil registration and vital statistics (CRVS) systems and archives. This would prevent people from accessing basic services guaranteed by fundamental rights – the right to an identity, the right to a name, and so on. Access to these services is critical; people rely on them for everything from humanitarian aid to health care, education, and job training.

Conflicts and natural disasters pose a risk for the wholesale destruction of identification archives, such as Côte d'Ivoire experienced during its civil war.¹ This risk is compounded by the fact that in these crisis situations, CRVS systems are often

last on policymakers' list of priorities, which puts the information and rights of entire generations at risk. For example, in a case where a Syrian couple lacks a marriage registration, the husband's death in the conflict and the pregnant wife's flight would prevent the woman from registering the children born of that marriage with Syrian authorities. In many contexts like this, a single mother cannot register the child or transmit her nationality, which bars the child from acquiring their nationality later, further complicating their potential return to Syria.

The 21st century has also seen the effects of climate change hitting countries that are the most vulnerable to extreme weather events. In particular, small island countries face a very real risk of disappearance. Even in less drastic circumstances, records are at risk of disappearing if a natural disaster occurs, making it difficult to account for deaths and to mitigate the consequences of these disasters. In all these situations, it is critical that governments have robust disaster risk reduction plans in place that protect civil registration records. Protecting CRVS systems must be part of each country's climate change mitigation and adaptation plans to ensure that natural disasters do not leave multiple generations without access to rights and services.

¹ World Bank. 2016. ID4D Country Diagnostic: Côte d'Ivoire. id4d.worldbank.org/sites/id4d.worldbank.org/files/2018-04/Cote%20d%27Ivoire_ID4D_Diagnostic_Web040618.pdf

Data are also critical to emergency responses. Accurate and timely data support governments and stakeholders such as NGOs and foreign donors to effectively deliver services and aid in the wake of an emergency such as COVID-19. Data also contribute to strengthening governance in fragile settings and protecting those who are the most vulnerable. As the United Nations High Commissioner for Refugees (UNHCR) has reported, the COVID-19 crisis is having an unprecedented socioeconomic impact on people around the world. This is hitting vulnerable populations, such as the forcibly displaced and the stateless, even harder. While a full picture has yet to be established, UNHCR estimates that global forced displacement surpassed 80 million by mid-2020; the refugee count has grown to 23.6 million.² Even before the pandemic, displaced people and the stateless struggled to obtain legal identity and work permits and get access to formal employment and social safety nets. In particular, refugees faced (and still face) additional legal and practical barriers to basic rights and services. CRVS data are essential for informing policymakers as they address humanitarian crises, respond to emergencies, and provide for a displaced population. Together with local outreach, data-driven decisions can reduce violence against vulnerable groups and improve access to services.

Despite their promise, CRVS systems often remain underdeveloped and underfunded in fragile contexts. Bridging these shortfalls and bringing CRVS onto the fragility agenda is a vital step forward in the Decade of Action.

INTRODUCING THE COMPENDIUM OF PRACTICE

Since 2016, the Centre of Excellence for CRVS Systems has been working with countries throughout the world to strengthen and improve their CRVS systems. As well as lending technical assistance and support to its partners, the Centre has been a globally recognized conveyor, bringing together a diverse range of stakeholders working in this field to discuss, debate, and make progress. In February 2018, the Centre, in partnership with the World Health Organization and UNICEF, co-hosted the first global meeting on CRVS, Making the Invisible Visible: CRVS as a Basis to Meeting the 2030 Agenda, in Ottawa.

Two years later, in February 2020, the Centre, Open Data Watch, and the UN Population Fund convened another conference – ConVERGE: Connecting Vital Events Registration and Gender Equality. The two-day discussions highlighted themes similar to those examined at the 2018 conference and reinforced the need to explore CRVS in conflict, emergency, and fragile contexts more specifically. Even though the need for research into effective CRVS practices in conflict, emergency, and fragile contexts exists, the evidence base remains scarce.

The Centre of Excellence is leading efforts to document a series of practices in this field and share them with the broader community in a compendium. This is intended to advance the dialogue around building effective CRVS systems in conflict, emergency, and fragile contexts and thereby contribute to leaving no one behind. The result of this effort is a series of 12 papers, including this overview, commissioned by diverse experts such as civil registrars, practitioners, and

² UNHCR. 2021. Refugee Data Finder. unhcr.org/refugee-statistics

researchers. The compendium's collection of case studies and real-world examples applies to a range of audiences:

- Academics with scientific knowledge of the field who are interested in learning about gaps in our knowledge on the topic of CRVS in conflict, emergency, and fragile settings;
- The UN Statistical Commission and standard-setting bodies looking to understand how international standards can better meet needs in emergencies;
- Government agencies, national statistical offices, and civil registrars striving to improve their CRVS systems and learn from countries that have tackled similar issues;
- Refugee-relevant organizations such as UNHCR, UN Relief and Works Agency, International Rescue Committee, and Women's Refugee Commission, so they can better prioritize efforts and understand the barriers refugees face in accessing documentation; and
- Funding and philanthropic agencies, so they can recognize the lack of countries' capacity to deliver CVRS systems and financially support efforts to strengthen these systems.

The emergencies the papers focus on include:

- CRVS in the context of responding to natural disasters;
- CRVS serving as a safeguard for gender equality during conflict;
- Protecting the rights of refugees and migrants;
- Ensuring proper death registration for all; and
- Combatting COVID-19.

The compendium begins with four papers that provide an overview of the state of CRVS affairs in the context of these topics. The remaining seven papers feature country case studies on Brazil, Ecuador, New Zealand, South Korea, Syria and Iraq, and Vanuatu. Below is a complete list of the papers and their summaries.





Photo: Dominic Chavez / World Bank

BUILDING RESILIENT CRVS SYSTEMS: LESSONS FROM THE COVID-19 PANDEMIC AND OTHER EMERGENCIES

By Carmen Sant Fruchtmann, Anna Socha, Laura Monzón Llamas, Carla AbouZahr, Irina Dincu, and Daniel Cobos Muñoz

Available in English | French

As other emergencies before it, COVID-19 is highlighting the importance of reliable and timely CRVS systems for policymakers and individuals. This paper examines the role of CRVS systems before, during, and after an emergency. It uses examples from the current COVID-19 crisis and previous emergencies, such as natural disasters and the Ebola outbreak. Building on the literature for resilient health systems, combined with lessons learned and experiences from CRVS systems under stress, the paper proposes the Framework for Resilient CRVS Systems, which captures seven competencies for resilient CRVS systems: integrated, responsive, agile, efficient, essential, inclusive, and robust. This framework aims to provide common ground for CRVS practitioners and implementers to create the foundation of resilient CRVS systems.

CIVIL REGISTRATION: MAINTAINING INTERNATIONAL STANDARDS IN EMERGENCIES

By Srdjan Mrkić

Available in English | French

A civil registration system includes all institutional, legal, and technical settings needed to perform civil registration functions in a technical, sound, coordinated, and standardized manner throughout the country, taking into account the cultural and social circumstances particular to that country. The most crucial undertaking in the wake of the COVID-19 pandemic has been facilitating universal registration of all vital events occurring in a country. This paper finds that for civil registration to function during the COVID-19 pandemic and to ensure adherence to international standards for civil registration, a priority must be to digitize and computerize the civil registration system and apparatus. This has proven to be the unique factor in mitigating the pandemic's impact and ensuring that civil registration is firmly embedded in the legal identity management model that the United Nations calls to be implemented in all Member States by 2030.

WHERE THERE IS NO CRVS: COUNTING AND REGISTERING DEATHS IN CONFLICT, EMERGENCIES, AND FRAGILE SETTINGS

By Carla AbouZahr, Laura Monzón Llamas, Carmen Sant Fruchtmán, and Daniel Cobos Muñoz

Available in English | French

Recent years have been characterized by significant movements of people fleeing war, civil conflict, disasters, and emergencies to find a better life elsewhere. We examine the role of CRVS systems during crises associated with conflict, migration, disasters, and health emergencies. We focus in particular on counting and registering deaths and determining causes of death in such circumstances. This is essential for public health and for planning and delivering healthcare interventions to affected people. It is also critically important for individuals and families, because civil registration provides legal documentation of the occurrence of vital events and of identity, civil status, and family relationships. Often neglected, but of particular importance to surviving family members, is the legal documentation of the death of a family member. This provides evidence of changed civil status and of a surviving spouse's eligibility to remarry, to claim nationality by descent, and to access possessions, benefits, entitlements, and inheritance. The paper identifies key gaps in the international response to the recording and registration of deaths; it also discusses how capturing information on deaths and providing surviving family members with information and death certificates can support institutional and societal resilience, contribute to post-crisis recovery, and pave the way for stability in the post-disaster and post-conflict future.

APPLYING A “SYSTEMS LENS”: CRVS AND FRAGILITY IN THE DIGITAL AGE

By Lauren Harrison and Liliana Suchodolska

Available in English | French

CRVS systems are critical to support institutional development, accountability, and effective policy design. For this reason, they represent a strategic investment in the long-term development of fragile and conflict-affected states. Emerging technologies, tools, and data sources in the digital age have created new opportunities to build and strengthen CRVS systems in these contexts while also amplifying challenges in data privacy and governance. This paper draws on PARIS21's 20-year history working in low- and middle-income countries to analyze barriers to CRVS development in fragile and conflict-affected states, and strategies to overcome them. Through an assessment of capacity and financing, the paper motivates a renewed emphasis on systems-based approaches to CRVS to advance inclusion and participation in situations of crisis and fragility.



Photo: Dominic Chavez / World Bank

ALTERNATIVE INFORMATION SOURCES ON DEATHS IN BRAZIL IN THE CONTEXT OF THE COVID-19 PANDEMIC

By Everton E. C. Lima, Marcos R. Gonzaga, Flávio H. M. de A. Freire, and Bernardo L. Queiroz

Available in English | French | Portuguese

Health and development challenges in the coming decades cannot be effectively addressed without reliable data on births, deaths, and causes of death. Only a comprehensive civil registration and vital statistics system can offer this. This paper finds that even with significant improvements in the collection and accuracy of death information in Brazil over the last 40 years, it is still necessary to develop research that presents evidence on which strategies work best for collecting civil records and statistics, and in which contexts. The authors highlight that a recurring problem that compromises the speed of epidemiological and demographic studies is related to the pace of disseminating mortality information system data. The research suggests that the Ministry of Health should create a dual flow of information delivery. Doing so would ensure that unverified and uncorrected death data is made available immediately to health managers and researchers and that verified death data is made available later, after the quality of the information has been analyzed.

THE BURIAL OF UNIDENTIFIED PEOPLE IN RIO DE JANEIRO: THE DISAPPEARANCE OF PEOPLE IN THE STATE BUREAUCRACY

By Alexandre Trece, Cláudio Machado, and Raquel Chrispino

Available in English | French | Portuguese

This article deals with the issue of deaths of unidentified people in Rio de Janeiro based on the observations of the authors as professionals and members of national and state committees, therefore, directly responsible for the implementation of actions aimed at combating the issue. The article is divided into four parts:

- The first part contextualizes the issue of deaths of unidentified people as a public policy problem and the main elements of civil registration and identity system organization are presented;
- Next, occurrences of unidentified deaths in the health system, social assistance, those resulting from crime, prison system inmates, and victims of urban militia groups are described;
- Thirdly, measures taken so far to correct this are presented, with emphasis on revising regulations and the identification process at the time of death; and
- The last part concludes with the presentation of recommendations that may contribute to mitigating the problem in Rio de Janeiro and nationally.

STRATEGIES FOR DEALING WITH THE CHALLENGES OF COVID-19 TO ECUADOR'S CIVIL REGISTRATION SYSTEM

By Vicente Andres Taiano Gonzalez, Gustavo Pedroso de Lima Brusse, and Vinicius Souza Maia

Available in English | French | Spanish

Early on, Ecuador was one of the countries most affected by COVID-19 in South America. It had a high concentration of cases in the city of Guayaquil, in the province of Guayas. The emergency situation caused by the pandemic directly affected the basic principles that underlie the country's CRVS system, such as its statistical role (ongoing registration of data) and its social role (ensuring access to basic human rights). Specifically, the need for social distancing challenges people's ability to register births, deaths, marriages, and divorces, which increases existing socioeconomic, cultural, and geographic barriers. This paper presents the emerging response of Ecuador's CRVS system to the pandemic since March 2020. It highlights the main strategies that were put in place to guarantee that operations would function so people could continue to register civil acts and events during the health emergency. Among the main actions were medium- and long-term processes: these included modernizing the civil registry system, creating a mobile teams strategy, and using the online vital statistics registry system. Short-term emergency measures were also taken, such as coordinating the integration of hospital units, using a colour-coded service provision strategy, adjusting work shift schedules, opening new offices, offering an online service desk through the virtual office, and giving data updates every day.

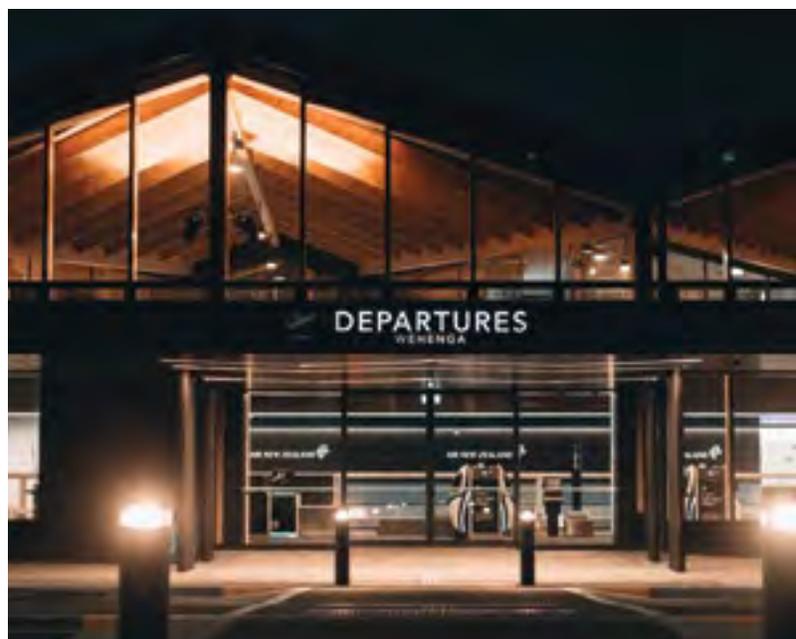


Photo: Josiah Farrow / Pexels

COVID-19 AND CRVS IN NEW ZEALAND: THE SHOW MUST GO ON

By Jeff Montgomery

Available in English | French

This paper outlines the Government of New Zealand's response to the COVID-19 crisis from a civil registration perspective. It examines the initiatives the government took to reduce the effects of the pandemic on health and civil registration services. It also highlights the long-term benefits of the emergency response efforts put in place at the onset of the crisis. The paper is based on a presentation at the Asia-Pacific Stats Café Series: Asia and the Pacific CRVS Systems' Responses to the COVID-19 Crisis.



Photo: Ketut Subiyanto / Pexels

THE ROLE OF CRVS IN ESTIMATING COVID-19-RELATED EXCESS DEATHS IN SOUTH KOREA

By Eunkoo Lee, Seokmin Lee, and Tanja Brøndsted Sejersen

Available in English | French

In situations like the current pandemic, deaths can be both directly and indirectly linked to COVID-19. Some people may succumb to the virus, but other deaths will result from a lack of medical resources while these are being intensely directed toward the pandemic response. To inform the response to the pandemic, the authors of this paper jointly analyze COVID-19 excess deaths by the Korea Disease Control and Prevention Agency, which leads the COVID-19 response, and Statistics Korea (KOSTAT), which manages CRVS in the Republic of Korea. This paper suggests that calculating excess deaths can be useful for estimating the mortality level by removing the uncertainties associated with COVID-19.

DOCUMENTING LIFE AND DEATH: WOMEN'S EXPERIENCES DURING CONFLICT IN SYRIA AND IRAQ

By Martin Clutterbuck

Available in English | French

This paper focuses on the experiences of women in two countries ravaged by protracted conflict in recent times: Iraq and Syria. Conflict in Syria, starting in 2011, and Iraq, as of 2014, has placed enormous pressure on the ability of families to register life events and have them certified. Women are especially impacted, because they have often lost spouses during the fighting, resulting in reduced family and income support. These women are required to prove the whereabouts or identity (or both) of missing husbands to obtain nationality and legal identity for the children from those relationships. The security situation limits the ability of women to travel to government offices to register family events and access services. At a time when they are required to shoulder additional responsibilities, the impact of paternalistic laws and cultural practices has reduced their ability to do so.



Photo: Silke von Brockhausen / UNDP

MITIGATING THE IMPACT OF NATURAL HAZARDS ON CIVIL REGISTRATION AND VITAL STATISTICS SYSTEMS: THE CASE OF VANUATU

By Gloria Mathenge, Benuel Lenge, Joemela Simeon, Carah Figueroa, Christine Linhart, and Ana Janet Sunga

Available in English | French

Sitting at the centre of the Pacific cyclone belt in the South Pacific, Vanuatu, with a population of 272,459 is considered one of the world's most vulnerable countries to natural hazards. Vanuatu is recovering from the impact of the severe category 5 Tropical Cyclone Harold, which hit the country in April 2020 following Cyclone Tino in

January 2020, Cyclone Oma in 2019, and Cyclone Pam in 2015. Vanuatu is also prone to and has experienced volcanic eruptions, earthquakes, storm surges, coastal flooding, and landslides. In addition to causing a saddening loss of lives, these disasters have had an important and direct impact on people's livelihoods, including those of civil registration officials. They have also impacted the government's infrastructure, including civil registration offices, and its capacity to maintain important functions during and after – and in response to – the crisis. This paper draws on Vanuatu's experiences to discuss the importance of CRVS systems and the challenges faced when these systems are implemented during disasters and emergencies. Measures to mitigate the impact of disasters on CRVS systems are also discussed.

FORGING A WAY FORWARD FOR BETTER CRVS SYSTEMS

The benefits of civil registration and vital statistics (CRVS) range from governance and peace to human rights and social protection, to the economy. In this light, CRVS systems represent an essential tool for state-building and good governance – not only in fragile and conflict-affected states, but in all states. Registering vital events, including births, marriages, divorces, and deaths, is crucial to provide basic population statistics. This enables better monitoring of population movements, demographic changes, and potential health threats. CRVS systems offer immediate value during times of crisis and in their aftermath, signifying a strategic, cost-effective allocation of limited financial and human resources in fragile contexts. As the world looks to rebuild itself amid the reverberating consequences of the COVID-19 pandemic – and looks ahead to the shrinking timeline to reach the Sustainable Development Goals – improving and strengthening CRVS systems becomes increasingly important.

Building Resilient CRVS Systems: Lessons from the COVID-19 Pandemic and Other Emergencies

by Carmen Sant Fruchtmán, Anna Socha, Laura Monzón Llamas,
Carla AbouZahr, Irina Dincu, and Daniel Cobos Muñoz

INTRODUCTION

The COVID-19 pandemic has underscored the dire importance of a reliable civil registration system for producing vital statistics and informing health decision-making processes.¹ During emergencies, such as the COVID-19 pandemic, civil registration and vital statistics (CRVS) systems are essential for producing timely and complete mortality and calculating excess mortality due to all causes. Decision-makers need mortality data when deciding how, when, where, and for whom to implement public health measures.² Mortality statistics are needed in a timely manner for outbreak control and management,³ especially in a rapidly evolving pandemic scenario. Additionally, fertility, mortality, and overall population data coming from CRVS systems serve other purposes before and during health emergencies, such as calculating the number of vaccine doses needed, estimating emergency housing needs, and budget planning for social welfare payments.⁴

Many countries across the globe do not have adequately performing CRVS systems to deal with physical, economic, social, and environmental shocks. In fact, even countries with mature CRVS systems have struggled to generate timely and complete data needed to track mortality associated with the COVID-19 pandemic.⁵ The lack of capacity and need for functional CRVS systems during the pandemic have initiated a global conversation on the critical nature of CRVS. Outdated technologies, rigid legal environments, and cumbersome procedures render many CRVS systems poorly positioned to adapt and respond to emerging needs.⁶

The performance of CRVS systems was worsened during the widespread lockdowns and restrictions on movement imposed by governments in an effort to slow COVID-19 transmission. On 9 April 2020, the United Nations Legal Identity Agenda Task Force released recommendations urging governments to deem civil registration

1 Setel, P. et al. 2020. [who.int/bulletin/volumes/98/6/20-263194.pdf](https://www.who.int/bulletin/volumes/98/6/20-263194.pdf)

2 Setel, P. 2020. statnews.com/2020/08/03/measuring-excess-mortality-gives-clearer-picture-pandemics-true-burden/

3 World Health Organization (WHO). 2018. apps.who.int/iris/handle/10665/272442

4 The Pacific Community. n.d.

5 Aron, J. and Muellbauer, J. 2020. ourworldindata.org/covid-excess-mortality

6 AbouZahr, C. et al. 2019. ncbi.nlm.nih.gov/pmc/articles/PMC5872022/

an essential service and to therefore continue operations during the pandemic.⁷ The same report called for the prioritization of birth, death, and cause-of-death registration if not all civil and vital registration services can be guaranteed.

Despite the good intentions of the UN Legal Identity Agenda (UNLIA) guidelines to prioritize birth and death registration, the authors want to emphasize the importance of all registrations — including marriage and divorce — in emergencies. All registrations provide important protections, especially for vulnerable populations. Marriage and divorce registration entitle women to essential social services and legal rights over property during and after marriage. The process of marriage registration also provides an important mechanism to ensure that marriages start with free and full consent, and that the minimum age of marriage is being upheld, both of which have greater relevance during emergencies.⁸

Despite the UNLIA's guidelines for COVID-19, some countries, such as India or the United Kingdom, still did not designate civil registration as an essential service. This led to a decline in service provision, closure of CRVS offices, and a discontinuation of CRVS registration activities.^{9 10} In addition, fear of infection and stay-at-home orders discouraged the public from visiting civil registration offices.¹¹

At present, the world is facing uncertain times, but one thing is clear: the current emergency caused by COVID-19 will not be the last. In fact, several countries are already experiencing the health and social consequences of the climate crisis,¹² effects of mass migrations, risks of political instability, and civil conflict.¹³ Well-performing CRVS systems must be at the core of country preparedness and response to future emergencies and chronic crises. Countries will need resilient CRVS systems to cope with the looming challenges of the 21st century and to meet the changing needs of a dynamic society.

Resilient CRVS systems will continue providing their essential services in the face of shocks and manage to recover and adapt to the new situation. Governments will be able to make evidence-based decisions and respond more effectively to everyday challenges and future crises. At the same time, individuals and families can continue to access their rights based on the proof of identity, civil status, and family relationships that CRVS systems provide.¹⁴

The complex nature of government systems, and their integration with other systems and individuals, make it almost impossible to predict which risks to CRVS systems may arise in the future. The shift towards resilient CRVS systems is based on a philosophical and methodological

7 United Nations Statistics Division. 2020.

covid-19-response.unstatshub.org/statistical-programmes/maintaining-crvs/

8 Polavarapu, A. 2016.

data2x.org/resource-center/gendered-dimensions-of-marriage-and-divorce-registration-laws-in-africa/

9 IANS. 2020. economictimes.indiatimes.com/news/politics-and-nation/what-constitutes-essential-services-and-how-govt-responds/what-can-you-do-during-a-shutdown-situation/slideshow/74772217.cms

10 AbouZahr, C. 2020. vitalstrategies.org/what-is-the-true-human-toll-of-covid-19-for-better-answers-to-this-critical-question-strengthen-civil-registration-systems/

11 Ibid.

12 United Nations. 2020. un.org/en/un75/climate-crisis-race-we-can-win

13 International Organization for Migration. 2020. iom.int/wmr/

14 Sumner, C. 2015. cpcnetwork.org/wp-content/uploads/2015/02/AIPJ-PUSKAPA-BASELINE-STUDY-ON-LEGAL-IDENTITY-Indonesia-2013.pdf

basis aiming to address systemic risk. Unlike traditional risk management strategies that aim to harden specific components of a system against specific threats, resilient CRVS systems should be ready to absorb any risk, recover, and adapt their operations to maintain and potentially improve services after the crisis.¹⁵

In this brief, we present a global framework for building more resilient CRVS systems that not only helps countries prepare for and respond to emergencies, but also makes CRVS systems more capable of dealing with everyday challenges. We argue that resilient CRVS systems should be at the centre of the preparedness and response to any disaster or emergency, with our Framework for Resilient CRVS Systems acting as a guide for governments for this and future pandemics.

KEY MESSAGES

- Countries will need resilient CRVS systems to cope with the looming challenges of the 21st century and meet the changing needs of a dynamic society.
 - Resilient CRVS systems continue providing their essential services in the face of disruptions and manage to recover and adapt to the new situation.
 - COVID-19 has highlighted the importance of reliable and timely mortality statistics for policymaking. CRVS systems are mandated to provide these statistics, and record, register, and provide proof for every other vital event.
 - CRVS systems are fundamental to fulfil the human rights of every person. The legal proof they provide gives access to health and social services, among others, which are mostly needed in times of crisis. This is especially important for neglected and marginalized populations.
- With the Framework for Resilient CRVS Systems, we propose a comprehensive approach to strengthen CRVS systems with a focus on averting catastrophic consequences prior to emergencies, responding effectively to crises, and ensuring a sustainable recovery.
 - Finally, using the Sendai Framework for Disaster Risk Reduction, we propose a set of considerations to guide the redesign of mature and immature CRVS systems towards a resilient CRVS system. As COVID-19 has shown, having a good performing CRVS system does not necessarily lead to a more resilient CRVS system if not designed appropriately.



Photo: Henitsoa Rafalia / World Bank

15 Linkov, I. et al. 2019.

CRVS SYSTEMS ARE A SAFETY NET DURING EMERGENCIES

Estimation of excess mortality

The total number of deaths due to COVID-19, which reached 1,443,694¹⁶ globally as of 28 November 2020, is underestimated due to incomplete health and statistical systems.^{17 18 19} COVID-19 deaths cannot be compared across countries due to differences in definitions.²⁰ Some countries are reporting only deaths in people who had previously tested positive for COVID-19, meanwhile others include all deaths where COVID-19 symptoms were experienced.²¹ Further, some countries count only deaths occurring in healthcare facilities, excluding those dying in care homes or at home.²² WHO's guidance was released on 20 April 2020 and defined a COVID-19 death as "a death resulting from a clinically compatible illness, in a probable or confirmed COVID-19 case, unless there is a clear alternative cause of death."²³

The challenges and uncertainties involved in accurately attributing cause of death associated with COVID-19 have led analysts to focus on

tracking excess mortality during the pandemic. Excess deaths provide an overview of COVID-19 deaths, and offer a holistic picture of the pandemic's indirect effects by comparing the number of deaths in the current period with previous years.²⁴ Because civil registration is, in principle, continuous and universal, it can provide time trends in total mortality, including differentials by age, sex, or residence. In most European countries, the European Mortality Monitoring Project (EuroMOMO), which monitors mortality and excess deaths as a result of public health risks, is providing a weekly summary of excess mortality and is being used as a key tool for policymakers.^{25 26} The great challenge lies in bringing immature CRVS systems to a level of registration completeness in which excess mortality can be estimated accurately and for all population groups.^{27 28} When CRVS systems are incomplete, women, children, and minorities are less likely to be included in vital statistics, leading to their exclusion from policy planning and leaving their needs unaddressed.^{29 30} This is especially concerning for public health, as understanding who dies due to which cause is a cornerstone for evidence-based policymaking.

16 Johns Hopkins University & Medicine. 2020. coronavirus.jhu.edu/map.html

17 Kiang, M. 2020. acpjournals.org/doi/full/10.7326/M20-310

18 Ghislandi, S. et al. 2020.

19 Giles, C. 2020.

20 World Health Organization (WHO). 2020a. who.int/publications/i/item/WHO-2019-nCoV-Sci-Brief-Mortality-2020.1

21 Our World in Data. 2020. ourworldindata.org/covid-deaths#deaths-from-covid-19-background

22 Cobos Muñoz, D. and de Savigny, D. 2018. crvsgateway.info/file/16907/1785

23 World Health Organization (WHO). 2020b. paho.org/en/documents/international-guidelines-certification-and-classification-coding-covid-19-cause-death

24 Leon, D. A. et al. 2020.

25 Fouillet, A. et al. 2020.

26 EuroMOMO. 2020. euromomo.eu/

27 Ghislandi, S. et al. 2020.

28 Adjiwanou, V. et al. 2020. doi.org/10.31235/osf.io/4bu3q

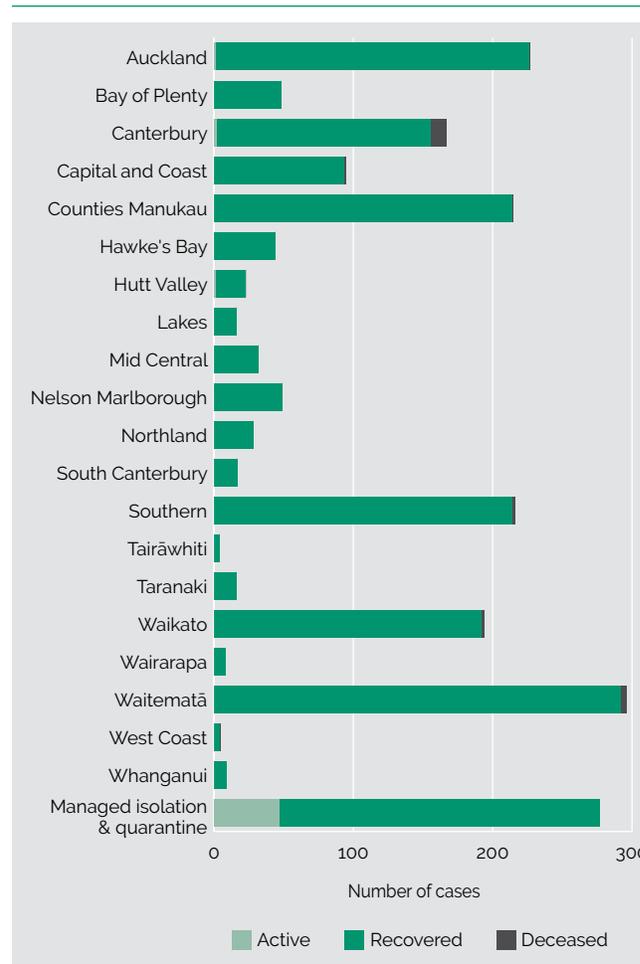
29 Harbers, I. 2020.

30 Cobos Muñoz, D. 2020. crvssystems.ca/sites/default/files/assets/files/CRVS_Gender_3.3_COD_e_WEB.pdf

A relatively small number of countries were ready to leverage their well-functioning CRVS systems and produce information on the dimensions and trajectory of the COVID-19 pandemic. They were able to look at excess mortality and causes of death across the whole population and disaggregate the data by age, sex, ethnicity, geography, and socioeconomic status.³¹ For example, in South America, countries such as Costa Rica and Brazil quickly adapted their civil registration systems to maintain accurate statistics and respond to emerging needs. Costa Rica introduced an online notification system for births and deaths directly from hospitals.³²

New Zealand, which has civil registration data available online, used death notifications to track COVID-19 mortality on a daily basis, instead of weekly. New Zealand's response to the COVID-19 pandemic has received global recognition and applause for their ability to eliminate the disease from the population. A key determinant of their success was their ability to act quickly and implement a high degree of public health measures swiftly, which required good data on the progression of COVID-19 in their population. Mortality data is disseminated within hours, allowing their COVID-19 response team to make quick decisions.³³ Figure 1 below illustrates New Zealand's online COVID-19 cases and mortalities by district health board and in managed isolation and quarantine facilities.³⁴

Figure 1: New Zealand's online COVID-19 case and mortality data as of 9 November 2020.³⁵



31 Ibid.

32 UN Legal Identity Agenda. 2020. unstats.un.org/legal-identity-agenda/COVID-19/

33 AbouZahr, C. 2020.

34 Ministry of Health New Zealand. 2020. health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-data-and-statistics/covid-19-current-cases

35 Ibid.

Access to health and social services

CRVS systems are necessary to provide legal documentation about the occurrence of vital events in the course of a person's life pertaining to identity, civil status, and family relationships.^{36 37} The absence of birth registration can reduce access to education or health services.^{38 39} For family members of a deceased person, a death certificate can be essential to access pension and insurance benefits, claim inheritance, permit remarriage, and avoid identity fraud by closing the legal identity of the deceased.^{40 41} These documents are even more important during or after a crisis as families may need to access loans or insurance payments, or ensure children are reunited with their families.⁴²

CRVS systems are especially beneficial for vulnerable populations and neglected communities, as they provide certifications that allow all people living in a defined territory or country to access legal documents.⁴³ When people need or are forced to migrate due to a

crisis, proof of legal identity becomes crucial for them and their children.^{44 45} This documentation entitles them to fundamental rights and support in receiving countries. However, these population groups experience barriers to registration as a consequence of the interplay between economic, social, and structural factors such as ethnicity, gender, or poverty,^{46 47 48 49} and the effects of not having legal documents are carried across generations.^{50 51} For example, when a woman who loses her husband in a crisis does not get his death certificate, her children may not be entitled to their inheritance and she cannot remarry.⁵² Evidence has shown that children born during unstable times who do not receive legal documents are particularly vulnerable to human trafficking or child marriage,⁵³ as they cannot prove their age or the legal link to their families.⁵⁴

The COVID-19 crisis has shown us that no one is safe until we all are. A COVID-19 outbreak among undocumented migrants in Catalonia, Spain and another among the migrant population in Singapore were the drivers of the second wave

36 AbouZahr, C. et al. 2019.

37 United Nations Statistics Division. 2002.

38 Fagernäs, S. 2014. [sciencedirect.com/science/article/abs/pii/S0014498313000466](https://www.sciencedirect.com/science/article/abs/pii/S0014498313000466)

39 Fagernäs, S. and Odame, J. 2013.

40 The Loomba Foundation. 2016. theloombafoundation.org/our-work/research/world-widows-report

41 Gautam Mitra, R. 2019. crvssystem.ca/sites/default/files/inline-files/CRVS_Gender_2.3_ID_e.pdf

42 The Pacific Community. n.d.

43 Chereni, A. 2016.

44 Ball, J. et al. 2017.

45 Seo, B. K. 2017.

46 Chereni, A. 2016.

47 Apland, K. et al. 2014.

48 Sumner, C. and Kusumaningrum, S. 2014. cpcnetwork.org/wp-content/uploads/2015/02/AIPJ-PUSKAPA-BASELINE-STUDY-ON-LEGAL-IDENTITY-Indonesia-2013.pdf

49 Ordóñez Bustamante, D. and Bracamonte Bardález, P. 2006.

50 Norwegian Refugee Council. 2015.

hrp.law.harvard.edu/wp-content/uploads/2015/11/Registering-rights-report-NRC-IHRC-October20151.pdf

51 Norwegian Refugee Council. 2016.

52 Norwegian Refugee Council. 2015.

53 Tolu, L. B. and Feyissa, G. T. 2020.

54 Hanmer, L. and Elefante, M. 2016. [researchsquare.com/article/rs-25326/v1](https://www.researchsquare.com/article/rs-25326/v1)

in both countries.⁵⁵ Providing access to legal documents must therefore be a priority to leave no one behind. The accompanying paper in this series, *Where There Is No CRVS: Counting and Registering Deaths in Conflict, Emergencies, and Fragile Settings*,⁵⁶ further describes the importance and human toll that dysfunctional CRVS systems can have on migrants and societies.

CRVS systems also play an essential role in other state-run functions, such as elections. Birth and death registration provide the basic information required to establish a population register and associated registers such as electoral rolls, which are pivotal to conducting fair and transparent elections.⁵⁷ If a CRVS system and associated archives are damaged or destroyed during a crisis, decision-makers often turn to ad hoc methods to recreate an electoral roll for new elections. However, such ad hoc voter registration exercises are inefficient, inaccurate (e.g., risk of double registrations), and of doubtful accountability and sustainability (e.g., Afghanistan, Bosnia-Herzegovina, Democratic Republic of the Congo, or Kosovo).⁵⁸

FRAMEWORK FOR RESILIENT CRVS SYSTEMS

Governments and societies are built on complex, adaptive systems that interact with and depend on each other. History shows that the expansive ecosystem in which we live is greater than the sum of its component sub-systems.⁵⁹ For instance, the shock in the financial system in

2008 and the resulting economic crisis affected the performance of health systems,⁶⁰ and increased health inequities throughout Europe.⁶¹ As a consequence of this interconnectedness, complex systems face risks that are vast and difficult to identify in advance. The concept of resilience allows us to understand and strengthen how system components affect one another,⁶² in contrast to traditional risk management approaches that develop strategies to understand the impact of specific risks on components of a system, but fail to understand the cascading effects across systems.

CRVS systems should be able to absorb and adapt to external shocks and emergencies to maintain essential services. Resilient CRVS systems can cope with and become strengthened by emergencies, as opposed to being overwhelmed or destroyed during emergencies. For the purposes of this brief, we describe resilience as "the capacity of a system to absorb disturbance and reorganize while undergoing change to still retain essentially the same function, structure, identity, and feedback."⁶³

This brief presents the Framework for Resilient CRVS Systems, which aims to provide a common ground for global, national, and local CRVS communities to ensure that CRVS systems are ready to absorb, respond, and adapt to external shocks and the changing needs of societies. To develop this Framework, the authors conducted a literature review of frameworks and guidance for strengthening CRVS systems and developing

55 Boyle, P. 2020.

56 AbouZahr, C. et al. 2021.

57 Ace Project. 2006. aceproject.org/electoral-advice/archive/questions/replies/699408087

58 Ibid.

59 Senge, P. and Asay, D. 1988.

60 Thomson, S. et al. 2015. euro.who.int/__data/assets/pdf_file/0008/289610/Economic-Crisis-Health-Systems-Health-Europe-Impact-implications-policy.pdf

61 Maynou Pujolràs, L. and Sáez Zafra, M. 2016.

62 Linkov, I. et al. 2019.

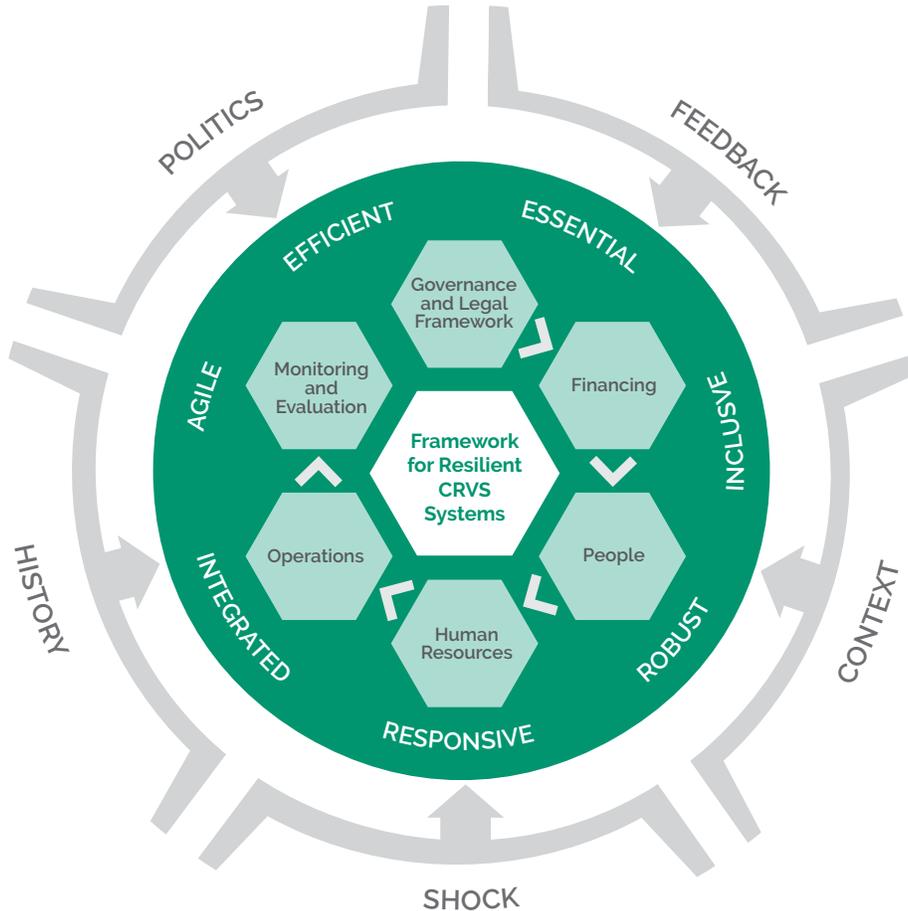
63 Walker, B. et al. 2004. ecologyandsociety.org/vol9/iss2/art5/

resilient health systems. Specifically, the Framework for Resilient CRVS Systems builds upon efforts in the area of CRVS and emergencies such as the Handbook on Civil Registration and Vital Statistics Systems,⁶⁴ the Rapid Assessment of National Civil Registration and Vital Statistics Systems,⁶⁵ the Birth Registration in Emergencies (BRIE) toolkit,⁶⁶ Pacific Civil Registrars Network documentation,⁶⁷ UN guidelines for COVID-19,⁶⁸ and research studies on CRVS in various contexts.⁶⁹ However, none of the documents reviewed provided an overarching framework

for resilient CRVS systems, which motivated the design of the Framework for Resilient CRVS Systems.

The Framework provides seven core competencies essential for resilient CRVS systems (Figure 2). It takes a holistic and systems perspective to integrating resilience across all core functions of CRVS systems. We also recognize that CRVS systems are complex, adaptive systems influenced by context, the history of the system, feedback loops that occur within and across systems, and the politics surrounding it.

Figure 2: Framework for Resilient CRVS Systems.



64 United Nations. 2018.

unstats.un.org/unsd/demographic-social/Standards-and-Methods/files/Handbooks/crvs/crvs-mgt-E.pdf

65 World Health Organization (WHO). 2010. apps.who.int/iris/handle/10665/70470

66 Plan International. 2018. brietoolkit.com/

67 Pacific Civil Registrars Network. 2017.

68 United Nations Statistics Division. 2020.

69 Rane, T. M. et al. 2020.

COMPETENCIES FOR RESILIENT CRVS SYSTEMS

We propose seven competencies for resilient CRVS systems. CRVS systems must be integrated, responsive, agile, efficient, essential, inclusive, and robust and to deal with health emergencies.

The competencies outlined in the Framework should be pursued in parallel with a systems approach because the achievement of one competency is largely based upon the achievement of the others, as described below. They are meant to be considered together and are not mutually exclusive.

INTEGRATED

A functioning CRVS system requires high levels of integration, coordination, and data sharing among government agencies at all administration levels, non-state actors, and across national borders. It is also essential for CRVS systems to be integrated within the community to ensure beneficiaries seek services.

The UN states that the interaction and coordination across government services is needed in emergency contexts.⁷⁰ Specifically, interaction between police and the justice department, health officials, home affairs, and other authorities is particularly important for civil registration discussions on issues such as issuance of documents, identity verification, and burial.^{71 72} Reliable, accurate registration depends on various agencies and actors,



Photo: Henitsoa Rafalia / World Bank

which necessitates an integrated system. For example, the health sector must ensure that civil registration authorities are notified of deaths occurring in facilities and aggregated mortality statistics are reported to the national statistics office.⁷³ The WHO recommends establishing a national coordinating committee involving key stakeholders, including a country's registrars, statistics office, and ministry of health.⁷⁴

Multi-sectoral, whole-of-government approaches to CRVS functionalities bring indisputable benefits within emergencies and beyond, such as ensuring compatibility across systems, avoiding duplication of efforts, and preventing contradictory approaches.^{75 76} The Economic Community of West African States (ECOWAS) has a single system that includes interventions related to civil status, electoral registration, management of national identity cards, and border management.⁷⁷

70 United Nations Statistics Division. 2020.

71 Ibid.

72 Rane, T. M. et al. 2020.

73 World Health Organization (WHO). 2014.

74 Ibid.

75 Cobos Muñoz, D. et al. 2020.

76 CRVS Knowledge Gateway. 2018.

77 UN Refugee Agency (UNHCR). 2015. refworld.org/docid/54f588b04.html

Integration across sectors also relates to ensuring the system is people centered. In a previous study, we found that when CRVS information systems are not integrated, families must assume the burden of registration. Lack of registration requires families to have more interactions with formal and informal sectors to register a vital event.⁷⁸ For example, CRVS officials should work with schools and healthcare facilities to help parents register for birth certificates.⁷⁹ This would also increase the demand for registration by beneficiaries if registration was required for social services.⁸⁰

Integration in the existing system is also required to ensure longevity and sustainability of initiatives developed during crisis scenarios.⁸¹ Rapid mortality surveillance systems,⁸² often built ad hoc to track real-time mortality during emergencies, run the risk of being abandoned following the emergency. This is shown in Case study 1. Even short-term responses focusing on immediate needs must be pragmatic and consider long-term effects to build systems that are sustainable and integrated.⁸³ Efforts should be made during or, at the latest, after a crisis to scale up these ad hoc systems and integrate them into existing information systems. Further guidance on how to scale up digital health interventions can be found in the MAPS Toolkit.⁸⁴

Case study 1: 117 call alert system in Sierra Leone

Despite the many challenges and difficulties a crisis poses, it also offers some opportunities. In the past, the Ebola crisis in West Africa created fertile ground for innovation and rapid development of tools. In Sierra Leone, the 117 call alert system was developed to notify authorities of Ebola deaths within hours of their occurrence. This system, which was developed in isolation, progressed to become part of the country's and districts' death notification system.⁸⁵ However, the integration, uptake, and use of the system declined after the Ebola pandemic ended, with death reporting falling from 100 percent in 2015 to only 12 percent in 2017.⁸⁶ This decline was caused by a lack of integration of the 117 system with the existing civil registration and disease surveillance systems, and a reduction in social mobilization.^{87 88} It is therefore essential to ensure that ad hoc surveillance systems are re-thought to ensure integration and interoperability with existing systems and infrastructure. COVID-19 is offering similar scenes in which countries are quickly digitizing their systems to have up-to-date real-time information. Many bureaucratic barriers that existed, especially across sectors, are now being overcome to improve the response to the pandemic.⁸⁹

78 Cobos Muñoz, D. et al. 2019b. crvsgateway.info/file/11077/3229

79 United Nations Statistics Division. 2019.

80 Ibid.

81 de Savigny, D. et al. 2017.

82 Setel, P. et al. 2020.

83 Deneckere, M. 2015. ecdpm.org/talking-points/civil-registration-vital-statistics-conflict-emergency/

84 United Nations Foundation et al. 2015. apps.who.int/iris/bitstream/handle/10665/185238/9789241509510_eng.pdf?sequence=1

85 Alpren, C. et al. 2017.

86 Jalloh, M. F. et al. 2020. journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0008624

87 Ibid.

88 Alpren, C. et al. 2017.

89 Ibid.

Government agencies need to collaborate with non-state actors involved in emergency responses, such as the private sector, civil society organizations, and communities. Well meaning efforts to gather data among displaced populations in emergencies have previously led to flawed and even conflicting data, which can worsen the situation.⁹⁰ In Nairobi's Kibera refugee camps, the government, UN organizations, and NGOs collected population data in parallel and developed different estimates. This led to several challenges, including poor delivery of services to the population.⁹¹ The United Nations Statistics Division recommends an inter-agency coordination committee (or committees) comprised of managerial and technical staff from different organizations be established for efficient planning, coordination, and action.⁹² Institutional channels for coordination are needed at the country and regional levels. Data collection and storage should be standardized to ensure data is comparable and interoperable. Cross-country and regional agreements gain relevance in the case of migrants, refugees, and displaced populations to avoid statelessness and address the missing migrant crisis.⁹³ Further, data sharing becomes even more relevant in times of crisis as several non-state organizations may be involved in the response to the disaster.⁹⁴ Data protection and privacy must be a priority for integrating information systems. Governments and other organizations must have commitments and plans to ensure the confidentiality of CRVS data and information.⁹⁵

RESPONSIVE

The many advantages of CRVS systems do not hold true if people do not seek registration services.

CRVS systems must be designed from a user point of view to respond to the needs and expectations of beneficiaries with particular attention to vulnerable groups and hard to reach populations. Effective CRVS systems require that community members are aware of the registration process, as well as the benefits of registration, to feel compelled to seek CRVS services. Putative advantages of registration have little meaning when people are struggling to earn a livelihood, find shelter, and ensure personal security, both in emergencies and in normal times.⁹⁶ Therefore, targeted and meaningful communication with communities is one step towards local integration and user-friendly design. However, it is essential to note that a well-informed population is only the first step to timely and accurate registration of vital and civil status events. The lack of vital events registration by the general public is usually dependent on existing social norms, lack of trust, negative attitudes, system barriers, and social and cultural beliefs.⁹⁷ Beliefs and social norms influence both service providers and service beneficiaries. Ultimately, local registrars must adopt a more dynamic and involved role to maintain good working relationships with the community, in addition to the main users of CRVS data and information.⁹⁸

90 Macauslan, I. and Phelps, L. 2012.

reliefweb.int/sites/reliefweb.int/files/resources/OGB%20EFSL%20Urban%20Evaluation.pdf

91 Desgropes, A. and Taupin, S. 2011.

92 United Nations Statistics Division. 2014. unstats.un.org/unsd/demographic/standmeth/principles/M19Rev3en.pdf

93 Laczko, F. et al. 2017. missingmigrants.iom.int/fatal-journeys-volume-3-improving-data-missing-migrants-part-1

94 Ibid.

95 United Nations Statistics Division. 2019.

96 Rane, T. M. et al. 2020.

97 United Nations Statistics Division. 2019.

98 Ibid.

AGILE

CRVS systems should quickly adapt to changing situations, including emergencies, conflict, or chronic stress. This involves the ability to transform operations and flexibility in responding to internal or external situations.

In emergencies, CRVS systems must be agile to adapt from “business as usual” to meet new demands for the system. A common critique of CRVS systems is their lack of flexibility or agility.⁹⁹ Laws and policies are the cornerstone of CRVS operations in both stable and emergency contexts. For a CRVS system to be agile, adequate governance mechanisms are required to provide a flexible legal environment where changes can take place. The UN adopted the Sendai Framework for Disaster Risk Reduction to reduce disaster risk in 2014 and highlights the importance of governance as one of the key priorities in managing disaster risk.¹⁰⁰ For instance, flexible governance and operational plans allowed Fiji to act quickly when hit by cyclone Winston (see Case study 2). Using their flexible legal framework, Fiji’s CRVS system coordinated activities across sectors to ensure all children were registered, including those who had lost their documentation due to the crisis. Coordination across sectors, including development partners and civil society, was quick and ensured the system remained efficient and agile, despite the major disaster.

Case study 2: Cyclone Winston in Fiji

Fiji experiences frequent disasters with varying impact across the country due to its location on a cyclone belt. In February 2016, Tropical Cyclone Winston, the strongest cyclone on record in the Southern Hemisphere, hit Fiji. In response, Fiji’s registration agency quickly formed a data exchange agreement with the Ministry of Education by working through Permanent Secretaries. The agreement allowed the registration agency to access the Fiji education management information system (FEMIS). Students from around 200 schools were targeted for birth certificate replacement using information from FEMIS, with principals from the schools checking to ensure children received the correct certificates.¹⁰¹ Their agility is based upon a well-integrated system that leveraged flexible governance and operational plans. In fact, upon being hit by Tropical Cyclone Winston, Fiji enacted its disaster plan, which involves close coordination under the guidance of disaster management controllers. The plan also involves NGOs, civil society, and development partners.

Agility is the result of CRVS system components working seamlessly and efficiently together under time pressure, which means flexible governance and operations are only part of the puzzle.

99 AbouZahr, C. et al. 2019.

100 United Nations Office for Disaster Risk Reduction. 2015.

undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030

101 Pacific Civil Registrars Network. 2017.

Good practice in preparing civil registration for emergencies includes involving children and communities in the design of civil registration interventions.¹⁰² In this way, when a disaster hits, communities with CRVS officials will be prepared, educated, and empowered to act quickly and collaboratively. The BRiE toolkit recommends user-centered design for developing a strategy or plan to manage civil registration during and post-disaster, including how to effectively use civil registration data to aid disaster management operations.¹⁰³

In the COVID-19 pandemic, the agility of CRVS systems was closely paired with the level of digitization of CRVS systems. Countries with online CRVS systems had the technical advantage to shift quickly and more seamlessly towards home-office schemes or remote registrations during lockdown.¹⁰⁴ Furthermore, the size of a country and degree of decentralization can play an important role in the timeliness of information in civil registration databases.¹⁰⁵ See Assessing disaster preparedness of CRVS systems – Key considerations (page 22), for guidance on ensuring the core functions of CRVS systems are prepared for a timely response in the event of an emergency.

EFFICIENT

CRVS systems must be well funded and make optimal use of resources.

Over the past decade, we have seen an increase in political support and funding commitments from countries and multilateral agencies to strengthen CRVS systems in low- and middle-income countries.¹⁰⁶ However, most CRVS systems across the globe are underfunded with resources based on historical budgets, and activities spread across different ministries and national agencies.^{107 108} Given the limited availability of resources, CRVS systems need to optimize the use of funding.¹⁰⁹ This becomes especially important during an emergency with competing priorities for governments and usually an increase in demand for CRVS systems.¹¹⁰ It is therefore crucial that CRVS systems make the best use of resources allocated to them.

Understanding the resource implications of CRVS operations is a necessary step towards more efficient systems. Often considered a costly service of the government,¹¹¹ there have only been a few attempts to estimate the cost of CRVS systems^{112 113 114 115} and compare them with other systems to produce vital statistics.¹¹⁶

102 United Nations. 2018.

103 Plan International. 2018.

104 UN Legal Identity Agenda. 2020. unstats.un.org/legal-identity-agenda/COVID-19/

105 Peters, B. G. 2016. publications.iadb.org/publications/english/document/Civil-Registration-and-Vital-Statistics-as-a-Tool-to-Improve-Public-Management.pdf

106 AbouZahr, C. et al. 2018. ncbi.nlm.nih.gov/pmc/articles/PMC5872022/

107 Cobo Muñoz, D. et al. 2019.

108 Mills, S. and Amponsah, D. 2019. jhpn.biomedcentral.com/articles/10.1186/s41043-019-0184-2

109 AbouZahr, C. et al. 2019.

110 United Nations Statistics Division. 2020.

111 Bowles, J. 2018.

112 Koshy, T. et al. 2017.

113 Espey, J. 2019. crvssystem.ca/sites/default/files/inline-files/CRVS_Gender_1.4_CostBenefits_e_WEB.pdf

114 Cobo Muñoz, D. et al. 2019a.

115 Mills, S. and Amponsah, D. 2019a.

116 Jimenez-Soto, E. et al. 2014. journals.plos.org/plosone/article?id=10.1371/journal.pone.0106234

Resources allocated to CRVS systems are usually based on historical budgets and are spread across different ministries and agencies. Recent efforts to estimate the cost of CRVS operations are surfacing,^{117 118} but this evidence is still scarce and difficult to generalize.

The majority of immature CRVS systems still use paper records for vital event registration.¹¹⁹ Paper-based systems can be inefficient and time-consuming, requiring staff to physically retrieve birth registration records, issue a duplicate copy of a birth certificate, and share civil registration data with other relevant agencies using methods, such as postal services, that may be disrupted in emergencies or face physical barriers.¹²⁰ These systems tend to be passive, requiring families to visit a civil registration office several times to finalize the registration of a vital event.¹²¹ This poses a high burden on the family and leads to many inefficiencies within the system.

Some countries have tried to address this by integrating information systems and strengthening vital event notifications from the health sector and community to CRVS systems.^{122 123 124} This is a timely development that, if implemented and scaled, will allow CRVS systems to increase completeness and reduce the burden on families. Furthermore, local networks in Guatemala where public registrars work directly with communities have proven to be cost-effective and efficient, while reducing barriers experienced by certain community members (see Case study 3).

Case study 3: Reconstruction after Guatemala's civil war

Approximately 10 percent of Guatemala's civil registries were destroyed during the country's civil war (1960–1996). Following the conflict, the peace agreement explicitly called for the revitalization of civil registration mechanisms. The Ministry of the Interior prepared regulations for the registration of births, marriages, and deaths among members of uprooted population groups and to demobilize members of the Guatemalan National Revolutionary Unity, or URNG. Although this initiative was unable to resolve all problems encountered by displaced communities, it achieved a major success in providing identity documents and thereby granting access to public assistance and services. The second strategy was the establishment of local networks, which enabled public registrars to work directly with communities. This contributed to a cost-effective and efficient registration process and ensured accessibility for women and girls who were unable to travel to registration centres.¹²⁵

117 Mursalin, S. M. and Ashraf, F. 2020.

118 Cobos Muñoz, D. et al. 2019a.

119 Mills, S. 2019.

blogs.worldbank.org/health/building-national-civil-registration-systems-ensure-effective-service-delivery

120 Ibid.

121 Cobos Muñoz, D. et al. 2019b.

122 Adair, T. et al. 2020. bmcmmedicine.biomedcentral.com/articles/10.1186/s12916-020-01524-x

123 Sanga, C. et al. 2020.

124 Cobos Muñoz, D. et al. 2018.

125 Internal Displacement Monitoring Centre (IDMC). 2008. refworld.org/pdfid/48a1ab812.pdf

Running efficient CRVS systems also requires a level of internal awareness of where to divert funds to and from during emergencies. Mechanisms must be in place to understand the functioning of the various parts of CRVS systems (i.e., core functions of CRVS systems), how they interact, and where different CRVS processes need to be improved. Consistent and stable feedback loops, through monitoring and evaluation, need to be institutionalized in the system to be aware of challenges that emerge. In times of crisis, new data sources and systems may arise to count deaths and births. These should always supplement but not substitute existing traditional methods.

ESSENTIAL

Resilient CRVS systems are ultimately the result of a country's will and capacity to strengthen them.

Being essential means building a consensus among key stakeholders to ensure these systems are prioritized and recognized as structural for the country. Coordination, capacity development, and country ownership must be central to the design and operationalization of CRVS systems.¹²⁶

Valuing a CRVS system requires various stakeholders, particularly decision-makers and policymakers, to be aware of the benefits of CRVS systems.¹²⁷ CRVS systems have been described as the cornerstone for inclusive development because they provide real-time data to guide planning for service and documentation that



Photo: Ousmane Traore (MAKAVELI) / World Bank

facilitates access to those services.¹²⁸ A complete CRVS system is fundamental to meeting the needs of vulnerable groups and hard-to-reach populations, including migrants, refugees, displaced persons, and returnees who usually remain untracked in a territory. It is crucial for countries to implement Article 34 of the 1951 Convention relating to the Status of Refugees and Article 32 of the 1954 Convention on the Status of Stateless Persons to ensure naturalization of these people.^{129 130}

If CRVS systems are not maintained during emergencies, they expose people to many vulnerabilities and create a backlog of registrations, depriving people of their right to access social services in times of great need.¹³¹ The consequences of these disruptions may be prolonged across generations.^{132 133} Case study 4

¹²⁶ CRVS Knowledge Gateway. 2018.

¹²⁷ AbouZahr, C. et al. 2019.

¹²⁸ Aplan, K. et al. 2014.

¹²⁹ UN Refugee Agency (UNHCR). 1951. [unhcr.org/3b66c2aa10](https://www.unhcr.org/3b66c2aa10)

¹³⁰ UN Refugee Agency (UNHCR). 1954.

[unhcr.org/ibelong/wp-content/uploads/1954-Convention-relating-to-the-Status-of-Stateless-Persons_ENG.pdf](https://www.unhcr.org/ibelong/wp-content/uploads/1954-Convention-relating-to-the-Status-of-Stateless-Persons_ENG.pdf)

¹³¹ United Nations Statistics Division. 2020.

¹³² Norwegian Refugee Council. 2015.

¹³³ Norwegian Refugee Council. 2016.

below provides examples of governments that prioritized CRVS systems and deemed them essential during COVID-19, which benefited communities and decision-makers during the pandemic.

Case study 4: Prioritizing CRVS systems during COVID-19

With the arrival of the COVID-19 pandemic, Ecuador quickly adjusted its CRVS system to adapt to emerging needs. Given movement restrictions and fear of infection, the country activated its online registration for deaths¹³⁴ on 3 April 2020. As a result, families were no longer required to visit registration offices in person to register a death.

Ecuador also increased the frequency of mortality reporting to weekly releases, instead of doing this on an annual basis. This represented a huge demand from the country's CRVS system, as 80 percent of its documentation is paper based.

Other Latin American countries also pivoted their CRVS systems to better understand and respond to the pandemic. Brazil and Colombia started counting and releasing weekly excess mortality disaggregated by region, sex, and age to inform policymaking.^{135 136}

Political prioritization means devoting adequate resources towards CRVS systems, including during emergencies. This is extremely important to building a system that is inclusive and robust. To achieve this, contingency plans for potential emergencies should be included in CRVS financing plans. Furthermore, civil registration should be free of charge at all times, especially in times of crisis. The UN recommendation for CRVS during the COVID-19 pandemic is to suspend fees for registration.¹³⁷

INCLUSIVE

An inclusive CRVS system is people-centered and provides services to meet the population's needs. During a crisis, marginalized groups such as children, women, and senior citizens are most likely to fall out of the system.

This builds on the UN's concept of universality of CRVS systems to include "all of the vital events occurring in every geographical area and in every population group of the country."¹³⁸ Systems should register vital events for every person in their territory, especially those who have been historically left out, such as women, displaced populations, or ethnic minorities. Additionally, vital statistics should be disaggregated by sex, age, ethnicity, or status to allow governments to take the specific interventions required to protect everyone.¹³⁹

134 El Comercio. 2020. elcomercio.com/actualidad/registro-civil-certificado-defuncion-internet.html

135 Minsalud GdEV. 2020. minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/VSP/estimacion-exceso-mortalidad-colombia-covid19.pdf

136 Setel, P. 2020.

137 United Nations Statistics Division. 2020.

138 UN Legal Identity Agenda. 2020. unstats.un.org/legal-identity-agenda/COVID-19/

139 Singleton, A. et al. 2017.

CRVS systems need to be guided by non-discrimination and non-harm policies. The information they record must not be used to identify or discriminate population groups. Legislation should be in place to ensure registration can occur for everyone. Often, migrants see their identity questioned as they can't get registration in their parents' place of origin or in their country of birth.¹⁴⁰ When CRVS systems fail to include everyone, those with no documentation will lack access to aid relief and face a higher risk of exaggerated social vulnerabilities, such as poverty, homelessness, or human trafficking.¹⁴¹

Building people centered CRVS systems also means understanding the different needs and barriers people face when accessing CRVS services. Different population groups, especially those with reduced mobility, should be involved in the design of CRVS interventions to ensure their needs are addressed and the system is accessible, user-friendly, and practical.

One important way for CRVS systems to be inclusive is to incorporate a gender lens in their design. Globally, women and girls still face many cultural, financial, and legal barriers to experiencing the full benefits and protections of civil registration.¹⁴² For example, women may have no means of transportation or family obligations that cannot be left unattended. To create a more inclusive and gender-responsive system, CRVS should be brought closer to women. For example, the Colombia Rural Vital program involves frontline health workers, trained community leaders, and mobile phones to use text messages



Photo: Dominic Chavez / World Bank

to report vital events to registration authorities (see Case study 5).¹⁴³

However, understanding the barriers needs to be followed by comprehensive solutions grounded in the realities faced by those left behind. For example, effective communication for development strategies are important for translating plans and policies into real behaviour and social change. Communication for development strategies help to

- promote attitude change, for example, about the registration of death and divorce;
- reduce stigma;
- create demand for information and services; and
- improve skills and the sense of self-efficacy, for example, by teaching women why they should register divorces.¹⁴⁴

140 Dash, S. crvs.gov.bd/assets/pdf/Keynote-paper-6.2_Sarat_Dash.pdf

141 Allan, K. and Mortensen, J. 2020.

142 Dincu, I. and Malambo, N. 2019.

crvssystem.ca/sites/default/files/inline-files/CRVS_Gender_1.1_InvisibleVisible_e_WEB.pdf

143 Castaño, V. H. A. et al. 2019. paho.org/relacsis/index.php/es/docs/recursos/reuniones-relacsis/g-reunion-buenos-aires-argentina/posters-ix-reunion-relacsis/454-47-ix-rsis-ev-rural-vital-colombia/file

144 United Nations Statistics Division. 2019.

Case study 5: Implementing a strategy to improve completeness and quality of vital event registration in rural municipalities of Colombia

Although overall certification completeness is high in Colombia, there are disparities between urban and rural populations, particularly for death certification. Colombia's Ministry of Health and Social Protection led an initiative to increase the completeness and quality of vital events registration in rural municipalities in Colombia with a focus on ethnic minorities. The pilot study involved an active search in communities to register vital events such as births and deaths. Technologies such as text messaging and verbal autopsies were used to increase completeness. This pilot increased birth and death registration. The major effects were seen in the capturing of death registration of women.¹⁴⁵

Research in Assam, a state in northeastern India, identified a lack of community awareness as a key barrier to birth and death registrations. Although India has had a legal framework and civil registration system in place for many years, the country still lacks systematic death registration. In Assam, only 13.7 percent of deaths were reported, and the percentage of medically certified deaths was only 0.9 percent of total registered deaths in 2013.¹⁴⁶ CRVS officials need to be aware of the challenges communities face in accessing registration and work to fix them.

Moreover, there are a number of benefits of CRVS officials working with communities, such as increasing credibility and trust among authorities,¹⁴⁷ finding innovative solutions to reach remote and rural areas, and pairing CRVS education with health promotion activities.¹⁴⁸ For example, CRVS community workshops can be paired with stigma reduction and education so all deaths, including those from stigmatized diseases, are registered.¹⁴⁹ CRVS can play an important role in connecting the government with citizens, as it is one of the few direct transactions between the government and the public.¹⁵⁰

145 Castaño, V. H. A. et al. 2019.

146 Puram, R. K. 2013. censusindia.gov.in/2011-Documents/mccd_Report1/Mccd_2013.pdf

147 Lopez, A. D. et al. 2013. who.int/healthinfo/CRVS_ResourceKit_2012.pdf

148 Rane, T. M. et al. 2020. sciedirect.com/science/article/pii/S2213398419300843?casa_token=TTXibd-VLGsAAAAA:_ljRuegl1GwVns1Ex4tr6ttuqKbpl1-Wt6cgt4dcBlcakiYiCDYR4MPHIWxPV_fSeRvC_eT0Exc

149 Ibid.

150 Norwegian Refugee Council. 2015.

ROBUST

A robust CRVS system has the capacity to absorb and recover from shocks and stress, without major negative consequences.¹⁵¹

During a disaster, CRVS systems need to be robust enough to continue functioning, and expand their operations to accommodate for greater needs.¹⁵²

CRVS systems should have a reserve capacity with the necessary and critical resources to be directed towards addressing challenges that emerge during crises. The UN recommendations for CRVS during the COVID-19 pandemic recognize the potential increase in the volume of registrations, which may require restructuring a CRVS system's human resources to perform other functions in the civil registry.¹⁵³ CRVS systems therefore need to have emergency preparedness and response strategies in place to ensure the continuity of services. These should address how human resources might be reorganized in the event of an emergency, including delegation protocols for situations in which staff might be affected by an emergency.¹⁵⁴

The system should be robust enough to maintain and continue all core functions. For example, under COVID-19, CRVS systems may need to expand eligibility regarding who can notify civil registrars of births and deaths, particularly outside of health facilities.¹⁵⁵ Another important element to ensure a robust CRVS system is having clear and secure backup strategies to protect a system's central registers and data repositories.

Some countries have established a decentralized model that locates repositories in different parts of a country to ensure that in the event of a natural disaster, not all sites are affected.¹⁵⁶

A robust and functional CRVS system can help policymakers respond to a crisis, including achieving the goal of safe migration by reducing fraud and improving tracking and verification processes.¹⁵⁷

REDESIGNING A RESILIENT CRVS SYSTEM

The competencies described previously in this document, can only be achieved through the six core functions of CRVS systems:

- Governance and legal framework;
- Human resources;
- Operations;
- Equity;
- Financing; and
- Monitoring and evaluation (M&E).

The core functions described in the box below are the building blocks of CRVS systems and the essential elements for a CRVS system to be functional.

151 Kruk, M. E. et al. 2017. [bmj.com/content/357/bmj.j2323](https://www.bmj.com/content/357/bmj.j2323)

152 Pacific Civil Registrars Network. 2017.

153 United Nations Statistics Division. 2020.

154 Ibid.

155 bradford.gov.uk/browse-all-news/press-releases/covid-19-changes-to-death-and-still-birth-registration/

156 Pacific Civil Registrars Network. 2017.

157 Castaño, V. H. A. et al. 2019.

Core functions of resilient CRVS systems (CRVS maturity model)

Governance and legal framework: CRVS systems require a legal environment that complies with international standards and functioning governance bodies responsible for CRVS. It is important that these exist and are disaster responsive. This requires a clear delineation of roles and responsibilities among responsible agencies.

As part of the legal framework, CRVS systems should be protected from political interference and manipulation, including the use of registration records to identify particular ethnic groups.

The community and affected populations should be included in decision-making at all stages of design, planning, implementation, and monitoring of CRVS systems to ensure a people- and user-centered design.

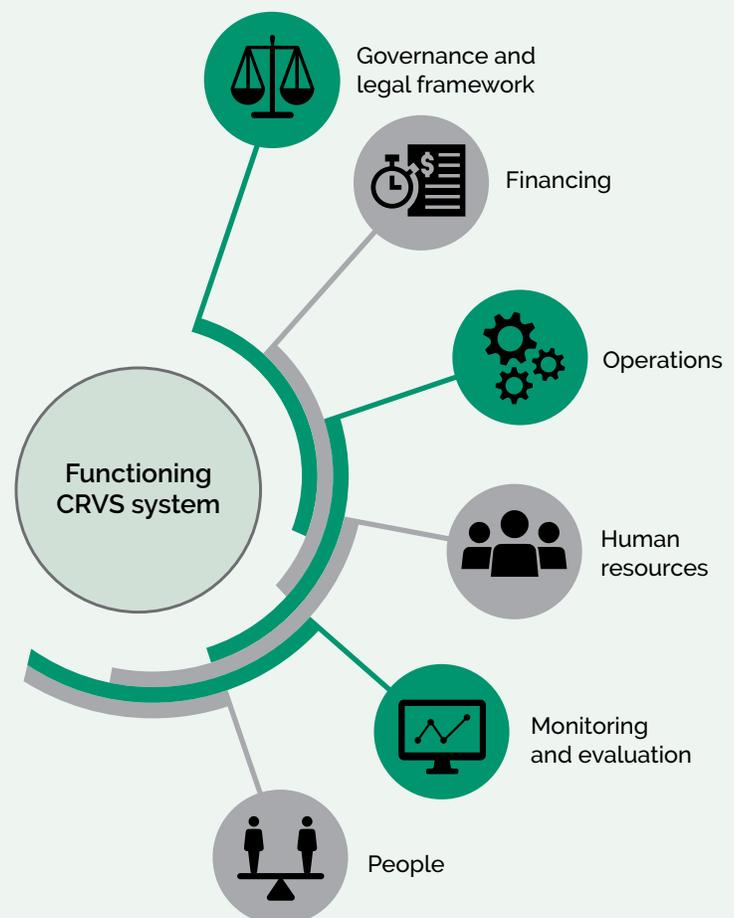
Operations: CRVS systems need effective, efficient business processes with appropriate physical and ICT infrastructure that is integrated with other information systems. Building resilient civil registration systems that can operate efficiently before and during emergencies requires

- investing in infrastructure, including physical registration facilities and IT infrastructure;
- establishing appropriate organizational, management, and coordination frameworks; and
- building knowledge and awareness among the public and civil registration personnel.

Monitoring and evaluation (M&E):

CRVS systems need a process for monitoring and supervising their operations, and evaluating the achievement of CRVS goals and objectives. Once bottlenecks and barriers are identified, they must be followed by appropriate actions and solutions.

Figure 3: Dimensions in the maturity model for CRVS systems.



People: CRVS systems need to be equitable, universal, and human-centred. This means they should reach everyone in a country, including discriminated groups, women and children, and rural communities. Vital statistics should reflect and be disaggregated based on relevant socio-demographic factors, and the system should respond to the changing needs of communities and beneficiaries. The community should be active in all stages of design, planning, implementation, and monitoring of CRVS functions.

Financing: CRVS systems need to be financially sustainable and have enough resources to fulfil their objectives before, during, and after crises. If sustainably financed, a CRVS system can be resilient, efficient, and absorb shocks caused by emergencies. Preparedness for emergencies has a recurrent cost which should be fully considered and funded. Financial mechanisms should also include contingency funding for response and recovery.

Human resources: Human resources and adequately trained personnel are needed for an agile and robust CRVS system. The system should provide inclusive job opportunities that require representation of women, youth, ethnic minorities, and marginalized groups across all levels of management.

We propose a set of considerations to help redesign mature and immature CRVS systems towards a more resilient CRVS system using the Sendai Framework for Disaster Risk Reduction 2015–2030.¹⁵⁸ The Sendai Framework calls for “a mechanism of case registry and a database of mortality caused by disaster to improve the prevention of morbidity and mortality.”¹⁵⁹ We argue that the suggested steps should be considered by mature and immature CRVS systems. As COVID-19 has shown, high coverage of a CRVS system does not necessarily lead to a more resilient CRVS system if the system was not designed appropriately. The elements for consideration described below build on previous efforts in the area of CRVS and emergencies, such as the BRiE toolkit,¹⁶⁰ Pacific Civil Registrars Network documentation,¹⁶¹ UN guidelines for COVID-19,¹⁶² and research studies on CRVS in various contexts.¹⁶³

Note: The items below are not intended to be a fixed list of steps to follow, but rather key considerations for countries to bear in mind when improving the resilience of their CRVS systems. The authors do not aim to provide a complete, comprehensive list of considerations, but instead encourage CRVS practitioners to build on the considerations below and adapt them to their context.

158 United Nations Office for Disaster Risk Reduction. 2015.

159 Ibid.

160 Plan International. 2018.

161 Pacific Civil Registrars Network. 2017.

162 United Nations Statistics Division. 2020.

163 Rane, T. M. et al. 2020.

Pre-disaster: Prevention and preparedness for resilient CRVS systems

To prepare for an emergency, it's important to assess a CRVS system's disaster preparedness. The box below provides a list of considerations for each of the core functions of CRVS systems, with examples. The list is largely built upon the Handbook on Civil Registration and Vital Statistics Systems¹⁶⁴ and the Pacific Civil Registrars Network Report of the Disaster Preparation and Response workshop.¹⁶⁵

Assessing disaster preparedness of CRVS systems – Key considerations

Governance and legal framework

- Consider CRVS services as part of national disaster planning, which includes developing a disaster preparedness strategy for CRVS systems. This requires a clear delineation of roles and responsibilities among responsible agencies.
- Establish a multi-sectoral coordination mechanism for CRVS, including disaster management authorities. Governments must work closely with disaster risk management line ministries, civil society, and humanitarian actors, including child protection alliances with United Nations agencies and non-governmental organizations.
- As part of the legal framework, protect CRVS systems from political interference and manipulation, including the use of registration records to identify particular ethnic groups. In some contexts, it is important to consider housing CRVS systems in an independent and trusted body.
- Advocate legal reform that supports the proper functioning of national CRVS institutions. To aid this process, the Bloomberg Philanthropies Data for Health initiative has developed a tool that can be used to review a country's legal framework for CRVS.¹⁶⁶
- Decentralize civil registration down to the subdistrict level.

¹⁶⁴ United Nations. 2018.

¹⁶⁵ Pacific Civil Registrars Network. 2017.

¹⁶⁶ Schwid, A. et al. 2017. advocacyincubator.org/wp-content/uploads/2020/12/CRVSID-Legal-and-Regulatory-Review-Toolkit.pdf

Operations

- Ensure physical infrastructure, including buildings that house CRVS systems and access points, are ready for a disaster.
- Establish systems for issuing vital event notifications during emergencies.
- Ensure data protection by backing up all data in a way that can be accessed during an emergency. This should include both the frequency with which data is backed up and the availability of off-site backup/multiple locations. For paper-based systems, this may involve building or improving a backup site for CRVS records.
- Allow virtual and mobile access to the database. This will assist with replacing registry services at damaged locations and reaching out to displaced or affected communities. Additionally, reduce the risk of duplicate registrations that may be created while off-line or during mobile data registration.
- Promote the centralization of record keeping. This tends to improve the accuracy of reporting; it reduces double counting and provides a single place where all people involved in collecting data can record, clarify, and compare vital events.
- Integrate civil registration with primary healthcare services.

Monitoring and evaluation (M&E)

- Conduct periodic audits of birth and death certificates.
- Establish inclusive and accessible feedback loops to ensure the quality and accuracy of the system.
- Evaluate the functioning of all core functions of CRVS systems and define best practices. Develop simple tools for emergency registration and mortality surveillance implementation and analysis.

People

- Involve children and communities in the design of civil registration interventions.
- Build principles of equity into the design of CRVS systems, as disasters disproportionality affect marginalized groups.
- Build on existing systems to make them accessible to affected populations.
- Assess the needs and barriers experienced by the population, with particular consideration for those who are frequently left behind or marginalized. Address barriers to CRVS services described by the population and prepare to address common barriers faced during emergencies, such as physical and financial barriers to CRVS services.
- Raise community awareness of CRVS systems, including describing the ways to access these in the event of an emergency and explaining the tangible and meaningful benefits of registration.

Financing

- Remove fees associated with registration.
- Create contingency plans for potential emergencies, including the financial resources available for a health emergency.
- Ensure sufficient resources reach local authorities responsible for performing the day-to-day operations of CRVS systems.

Human resources

- Ensure there are enough staff with training and delegation authority to deliver services in the absence of staff who may be affected by the disaster themselves.
- Establish recurring educational sessions for service providers and build capacity to ensure there are enough staff to conduct essential functions (recording of births, deaths, and cause of death).

Response to an emergency

- **Conduct a rapid assessment of the disaster's impact on the system** while including key stakeholders and involving communities to identify the functionalities, resources, and main barriers to CRVS systems experienced since the emergency started. Map the processes to identify bottlenecks and design joint solutions using human-centred design. Although we call this assessment rapid considering that time is of the essence in emergencies, we also note the importance of this stage. It determines the effectiveness of all parallel and subsequent steps; thus, quality should not be undermined for the sake of time.
- **Establish and activate multi-sectoral and multi-stakeholder management structure(s) and disaster coordination mechanisms** for the response with clear delegation of roles and responsibilities. Ensure inclusion and coordination with appropriate partners, including civil society and communities. Employ a systems approach to design and implementation, and consider implications beyond the immediate response.
- **Maintain essential registration services**, namely birth, death, marriage, and cause of death registration.
- **Adapt services to remove potential barriers.** For example, remote registration could be considered if there are physical barriers to registration. Further, remove any fees for registration to facilitate access, including fee waiver for late registration.
- **Continuously assess and re-assess the internal functioning of CRVS systems, the external context, and the emergency situation.** Use pre-established disaster plans and protocols that ensure flexibility and inclusive feedback loops. Ensure that those affected by the disaster, namely marginalized population groups, participate in the evaluation and decision-making processes through consultations and various feedback mechanisms.
- **Communicate CRVS data** (disaggregated by sex and other relevant variables) in suitable and useable ways to targeted audiences, including decision-makers in various government cadres and the community. Other relevant actors who can improve the functioning of CRVS systems in emergencies are researchers, including both social scientists and epidemiologists/data experts, the media, civil society, international organizations, and the private sector. For example, civil society should be informed of CRVS data or challenges (and listened to), as they often have a strong role to play in pressuring decision-makers to uphold evidence and people's needs in times of crisis. Ultimately, CRVS data must be used and fed into appropriate decision-making structures. On the other side, communication is integral for maintaining trust and working effectively with local communities.
- **Prioritize staff wellbeing and protection** as the disaster could affect them personally. CRVS systems cannot function without appropriate human resources and well-compensated officials.
- **Ensure privacy and confidentiality** is maintained even with amended processes.

Recovery phase: Build back better

- **Leverage CRVS systems for state building and rebuilding, and peacebuilding.** CRVS can help restore fractured state-society relationships and foster the integration of marginalized social groups by providing formal identity that safeguards basic rights, including the right to vote and access services. These can serve as building blocks to support broader peacebuilding, state building, and trust building processes.
- **Assess the impacts of the disaster on CRVS systems** and use the opportunity to invest further in sustainable system improvements. After developing an understanding of the impacts of the disaster on the system, revise them to improve the overall functioning of the system for daily purposes and for preparedness for future disasters. Consider the sustainability of the initiatives and ensure that no parallel systems are developed during states of emergency.

CONCLUSION

The current COVID-19 pandemic is highlighting what has been clear for many for years: CRVS systems are fundamental to preparing and responding to a crisis. The data they provide can guide resource allocation and priority setting in times of crisis and can be used to predict new emergencies. These systems also provide essential documentation for people to fulfill civil and social rights, as they prevent statelessness and vulnerability structures. Legal documentation, already essential in stable times, becomes especially relevant during a crisis.



Photo: Henitsoa Rafalia / World Bank

Before we forget the failure of many CRVS systems during the COVID-19 outbreak, we need to consider how to make them more robust to crises and more agile in their response. With this brief, we aim to learn from other sectors and further develop an overarching framework for resilient CRVS systems. The Framework for Resilient CRVS Systems aims to open the ground for further discussion and work globally, regionally, nationally, and locally. The seven competencies we highlight in the Framework for Resilient CRVS Systems should support countries moving forward in the face of the challenges the 21st century poses for societies. However, crises can also be opportunities to build back better. Country experiences as varied as Guatemala, Ecuador, and Fiji demonstrate how resilience can be built after crises. We hope implementation of these ideas can energize policymakers and ultimately benefit families and communities in times of crisis and beyond.

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Civil Registration: Maintaining International Standards in Emergencies

by Srdjan Mrkić

INTRODUCTION

Civil registration is defined as the continuous, permanent, compulsory, and universal recording of the occurrence and characteristics of vital events pertaining to the whole population. The international set of standards and recommendations on establishing, maintaining, and operating national civil registration systems has been developed by the United Nations since the early 1950s and was regularly updated, with the most recent version issued in 2015. It places civil registration front and centre of the holistic approach to civil registration, vital statistics, and identity management as elaborated in the United Nations Legal Identity Agenda.

The term "civil registration method" refers to the procedure employed in gathering the basic information on the incidence and characteristics of vital events that occur in the population of a country (or area) within a specified time period, upon which the preparation of vital records with legal value and the production of vital statistics are based. This method should be distinguished from other methods of gathering data about the population because it is mandated by law to be continuous and permanent. Information

collected within the framework of this system has legal authority.¹

Registration as a continuous process implies also that the process is a permanent one. Registration maintained for short periods and then allowed to lapse will not yield data and measures that are useful, either as current incidence statistics or as indicators of changes over time.

Enactment of legislation that makes registration compulsory is the best means of ensuring continuous, permanent recording of vital events. Such legislation should provide sanctions to ensure fulfilment of the requirements of the registration system. Thus, the registration method is characterized not only by the continuous nature of its observations, but also by its compulsoriness. Both features are fundamental to the successful operation and maintenance of the system.

A system of civil registration includes all institutional, legal, and technical settings needed for the performance of civil registration functions in a technical, sound, coordinated, and standardized manner throughout the country, taking into account the cultural and social circumstances particular to that country.

1 United Nations. 2014. unstats.un.org/unsd/demographic-social/Standards-and-Methods/files/Principles_and_Recommendations/CRVS/M19Rev3-E.pdf

The registration functions include:

- Recording vital events;
- Storage, safekeeping, and retrieval of vital records;
- Protection of confidentiality;
- Certificate issuing and other customer services;
- Recording and reporting information on vital events for statistical purposes; and
- Providing reliable and timely information and data to other government agencies, such as the ministry of health, population registers, pension fund systems, electoral services, personal identification services, and research institutions.²

Therefore, the essential purpose of civil registration is to furnish legal instruments of direct interest to individuals. All societies today exhibit considerable complexity in interpersonal relations and increasing bureaucratization in dealings between individuals and the state. Hence it is important, in order to ensure certainty in legal matters, that individuals be provided with probatory instruments that allow them to prove, with ironclad certainty, the facts relating to their existence, identity, and personal and family situation. The principal reason for civil registration — its basic purpose and one that must be facilitated by the state — is to serve as an institution capable of disclosing facts relating to civil status based on technical legal principles. Through this institution, individuals can be assured of the legitimacy and authenticity of civil status-related facts in order to accredit them to

other individuals or the administration itself, by means of public registration documents known as certifications.

Consequently, in the contemporary paradigm, civil registration provides both the certification of identity for a newborn child and also critical entry into the identity management system, whether through the standalone population register or, in the case where population registers are subsumed by the identity management system, directly into it. At the other end of the life cycle, civil registration also plays a critical role in notifying the occurrence of deaths to the population register and the identity management system, so that the records can be amended accordingly, and those identities are withdrawn or marked as “deceased.”³

The United Nations Legal Identity Agenda, launched in May 2019, builds on these characteristics of civil registration. This agenda takes a holistic approach to civil registration of all vital events, production of vital statistics, and the establishment and maintenance of population registers and identity management apparatus from birth to death (Figure 1). The agenda requires full interoperability⁴ between these functions in a simultaneous manner, according to international standards and recommendations and in compliance with the human rights of all people concerned, including the right to privacy. All United Nations Member States should adopt and implement this agenda as a systematic and perpetual mechanism for ensuring legal identity for all.⁵

2 United Nations. 2014.

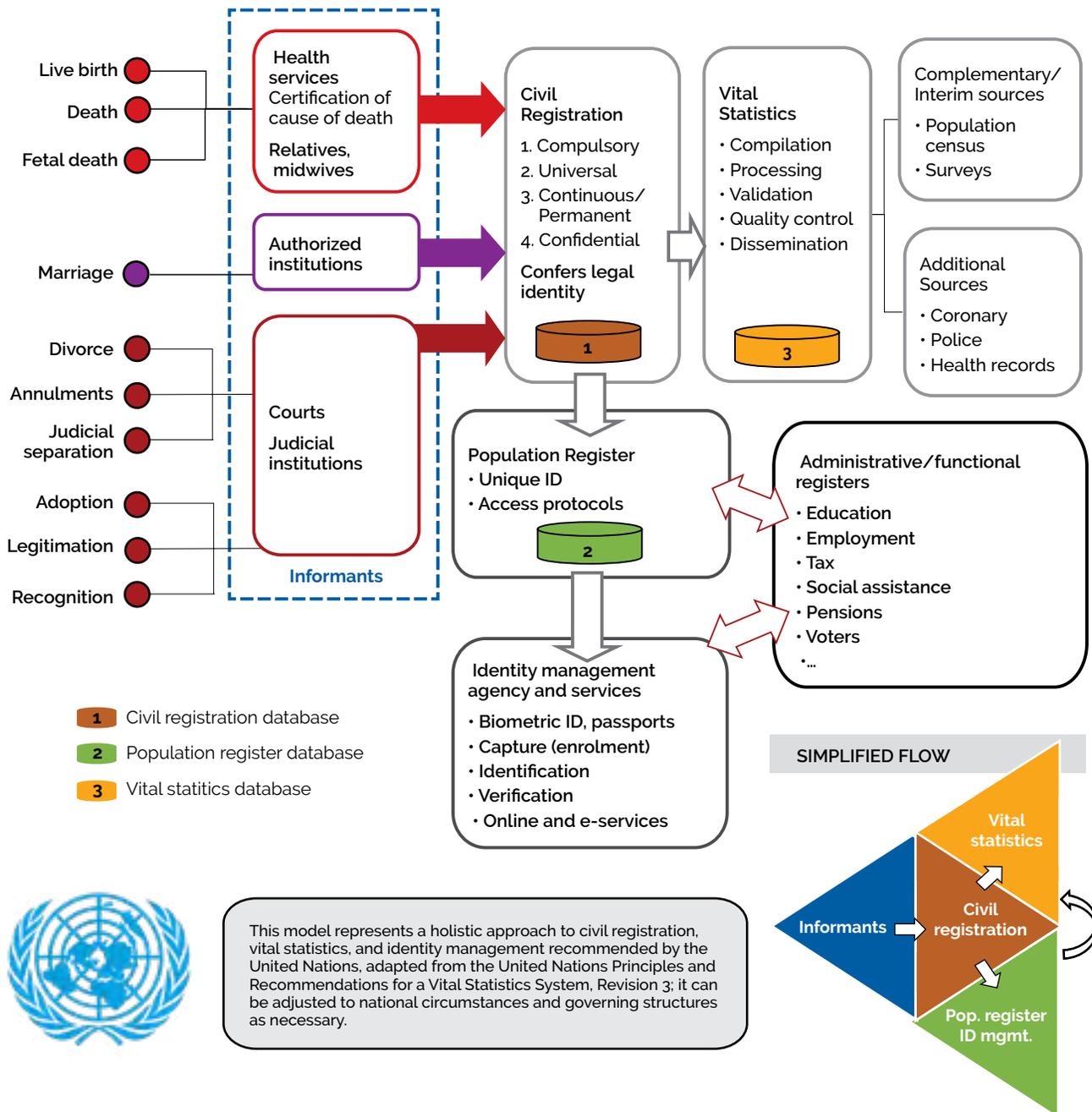
3 United Nations. 2018. Revision 1, paragraphs 83 and 84.

unstats.un.org/unsd/demographic-social/Standards-and-Methods/files/Handbooks/crvs/crvs-mgt-E.pdf

4 Interoperability in this context refers primarily to ensuring that systems are using the same set of definitions, classifications, and methodology, as well as technologically compatible platforms allowing for full harmonization of interfaces and access protocols. Interoperability between functions does not infer allowing full access and manipulating records and content of any single system.

5 United Nations. 2020. Paragraph 83. unstats.un.org/legal-identity-agenda/documents/UNCT-Guidelines.pdf

Figure 1: Civil registration, vital statistics, and identity management system.



In implementing the holistic approach to civil registration, vital statistics, and identity management, Member States need to guarantee the universal recording of all vital events occurring in the country, primarily births and deaths. This requires ensuring that the network of civil registrars covers the entire country and that civil registrars, in their role as civil servants, deliver the registration services in a continuous, mandatory, and confidential manner. The two major components are the updated legal framework for civil registration and the extension of the network of civil registrars to cover all the regions — both clearly identified as government functions and responsibilities.⁶

CIVIL REGISTRATION PRINCIPLES⁷

The purpose of a country's civil registration system is to record and store information on the occurrence of vital events and their characteristics and to permit retrieval of the information when needed for legal, administrative, statistical, and other uses. The work is accomplished through the registration method. Civil registration is carried out primarily because the resulting legal documents, as provided for by law, are valuable; at the same time, the usefulness of these records as a main source of vital statistics is universally recognized.

The civil registration method may be characterized as follows: it is compulsory, universal, continuous, permanent, and confidential. In addition, the records generated through this method should be maintained in such a way as to ensure that they can be retrieved individually, as required.

Compulsory. A country's civil registration system must be compulsory in order to assure its smooth operation and effectiveness. While it is necessary for every country to establish a law on registration, the existence of such a law is not a sufficient

condition for ensuring that the general public reports the occurrence of vital events. Compulsory registration has to be linked to the imposition of some form of penalty on those who fail to comply with registration laws; i.e., failure to register the occurrence of a vital event should be punishable by law. Since penalties for failure to comply with registration laws may not always be invoked and penalties may also be a deterrent to registration, it is imperative that there be a legal basis for prosecution to ensure that general compliance with the registration law is practiced. Thus, a legal framework for civil registration is fundamental to its sound operation as a coherent, coordinated, and technically sound system.

In spite of the existing provisions for penalties in a number of countries in cases of non-compliance, the level of completeness of registration remains low. The most important reason for such non-compliance is the lack of incentives for registration. Incentives must be established not only to stimulate but also to encourage compliance with the compulsory registration law. Besides the privileges and rights that are to be enjoyed upon proof of registration, national registration systems, within their own respective socio-cultural environments, should offer other incentives that are of practical use, especially at the individual level.

Universal. In order to ensure that maximum value is derived from the registration system by both individuals and users of vital records and statistics information, registration requirements must apply to the entire population of the country, independent of geographical location or population subdivision. When there are significant variations in the level of social and economic development in different parts of the country, it may be necessary to establish special procedures for the registration of certain vital events. However, the universality of civil registration

6 United Nations. 2020. Paragraph 87.

7 United Nations. 2014.

must be maintained. Vital events occurring to residents who are abroad temporarily should also be registered.

Continuous and permanent. The continuity and permanence of the registration method require an agency of sufficient administrative stability whose operation is not limited by time. Permanence of the system is a requirement for the continuity of registration and vital statistics data, which is necessary for a meaningful understanding of both current figures and trends in vital statistics measures.

Confidential. Through the civil registration method, a variety of information is collected about individuals within the population. While all information collected has importance, some data, when identified with a specific individual, may be highly personal and sensitive. In order to promote the provision of full and honest data to the system, the confidentiality of the information must be protected. That is, those who provide information must rest assured that it will be used only for the purposes prescribed by law and/or in aggregated form so that they are not identifiable.

Confidentiality provisions should not be so rigid as to exclude the use of the records for special studies, nor should those provisions weaken the value of those records as legal documents. Considering the wide administrative, public health, and social uses made of accurate civil registration records, it is impossible to guarantee absolute confidentiality in connection with purely statistical inquiries. However, confidentiality provisions can be spelled out in such a way as to ensure that the records are used for research purposes without publicly disclosing the identity and characteristics of the parties involved. Similarly, copies of the records to be used for the establishment of legal facts (e.g., proof of occurrence, proof of age) need not include some or all of the statistical items.

Because of the importance of confidentiality to data quality as well as data usefulness, a provision for confidentiality of information and protection of the privacy of individuals should be part of civil registration law.

CIVIL REGISTRATION IN EMERGENCIES

The civil registration system, as described above, needs to be capable of universal registration of all vital events in a country. However, as documented by the United Nations,⁸ in approximately one half of the world's countries or areas, civil registration is not complete and universal, thus depriving a significant population of accessing the basic legal documents that establish (birth certificate) and retire (death certificate) the legal identity of individuals. Thus, in the best and normal circumstances, the functioning of civil registration is not complete; consequently, one can expect that civil registration services would deteriorate in the case of emergencies.

In an effort to illustrate the enormous challenges civil registration faces in times of emergency, the UN Statistics Division, as a co-chair of the UN Legal Identity Agenda Task Force, initiated a survey in April and May 2020. The survey assessed the impact of the COVID-19 pandemic on the functioning of civil registration worldwide and was used to develop a set of guidance and recommendations to countries. The survey included the following four questions:

1. Is civil registration considered an essential service in your country? Namely, in a number of countries affected by the COVID-19 pandemic, only the employees of essential services are required to report for duty, while non-essential services' employees are requested to stay at home in order to minimize the spreading of the virus.

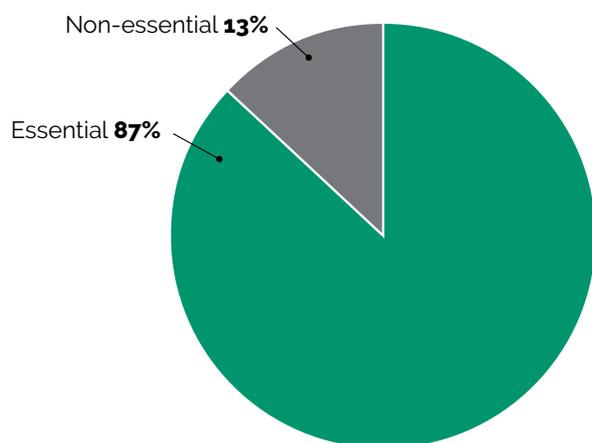
8 United Nations Statistics Division. unstats.un.org/unsd/demographic-social/crvs/

2. What are the impacts of COVID-19 on the registration of vital events and the functionality of the civil registration authority, in general?
3. What are the working arrangements being implemented or planned to be implemented during the current or possible upcoming COVID-19 containment period to ensure continuity?
4. How is your office addressing the impact of the COVID-19 pandemic on the registration of vital events? What are the recommendations to the civil registration offices to ensure that all births, deaths, marriages, and other vital events are registered during this time?

The source of national practices and examples of responses in this chapter is the Survey on Maintaining Civil Registration and Vital Statistics in COVID-19 pandemic⁹ (further referenced as the COVID-19 Survey). The survey collected replies from 67 countries/areas from all over the world.

In replying to the question on whether civil registration was identified as an essential service in times of pandemic, a majority of countries/areas replied positively (Figure 2).

Figure 2: Percentage of countries/areas whose civil registration is considered an essential or non-essential service.



Yet, 13 percent of the respondents indicated that their respective governments, in the middle of the COVID-19 pandemic, refrained from placing the civil registration function on the list of essential services that have to be provided even during a pandemic. The rationale behind these decisions was primarily the understandable concern to minimize the risks of exposure to the virus. The following are some examples of responses (and the dates they were submitted).



Malawi, 22 April 2020: Civil registration is not considered as an essential service in the country. At this stage in Malawi, civil servants are not being asked to stay at home but rather work in shifts to minimize congestion and the National Registration Bureau (NRB) is also doing the same.

NRB staff are working in shifts, meaning records are not being processed as normal. This will eventually create backlog in the system. Again, staff working in health facilities are afraid to perform their duties as usual since they are afraid of contracting the virus. The chances are high that if proper measures are not put in place, they may start absconding from work. The same applies to staff at the District Registration Office who are afraid to interact with clients. Another impact is that other stakeholders that we work with have also slowed down, therefore affecting our performance. These include IT service providers and technical experts and donor partners who have either travelled back to their countries or are working from home. We will have a clear picture as time goes. There is a need to come up with a proper plan including provision of protective gear and sanitizers in order to keep the registration functionality going.

⁹ See the UN Legal Identity Agenda at unstats.un.org/legal-identity-agenda/COVID-19/

Right now, what is being implemented is working in shifts in all offices. This will ensure that there is a staff to continue with the registration. Working from home is also being considered, especially for those that do not have to meet clients. This means providing good Internet service to officers working from home. Government guidelines will also play a big role on these decisions. Ideas from different stakeholders are welcome. And the aim is to make sure that registration is not suspended.

So far, the office is putting in strict preventive measures as guided by experts. These include washing hands regularly in and around the office, use of hand sanitizers, wearing of masks, especially those in the frontline like hospitals, and working in shifts of small numbers of staff. All suspicious clients are also being referred to health authorities.¹⁰

 **Uganda, 22 April 2020:** Following the spread of the COVID-19 pandemic to Uganda, the Government imposed a 14-day lockdown period effective 31 March 2020. Essential services and employees of these essential services were permitted to continue with their work. The Civil Registration Authority was not among the providers of essential services advised to continue. However, among these essential services are the health facilities where approximately 73 percent of births occur and about 300,000 deaths occur annually. The health facilities play an important role in notifying the Civil Registration Authority of these events. Key IT staff have been maintained to ensure the systems are up and running to ensure that all births and deaths are notified electronically during this time.

All Civil Registration offices countrywide were closed. Uganda currently operates an online tool known as Mobile Vital Records System (MVRS) accessed by a significant number of



Photo: Arne Hoel / World Bank

health facilities where these events of birth and death continue to be notified online in real time. For those facilities without the necessary infrastructure, manual notification tools were provided. Due to the lockdown, these cannot be retrieved, and the registration process cannot be completed. The Registration Officers have been encouraged to access the notified records online using the MVRS tool and register the events. Due to the closure of offices countrywide, no certificates of birth and death can be issued at the moment. Scheduled activities such as outreach to hard-to-reach areas and underserved communities were in addition halted. The halting of CRVS functions will have an impact on national planning and therefore service delivery as a number of births and deaths during this period may be unregistered.

Duty bearers, such as the Ministry of Health and Local Government and staff of the civil registry office, have been encouraged to continue online notification and registration of the events of births and deaths. The Civil Registry Office

has adopted the use of online meeting tools to continue the coordination of CRVS activities especially between the civil registry office and the Ministry of Health aimed at strengthening civil registration.

Uganda has only started dealing with the COVID-19 pandemic and is only beginning to deal with effects of the pandemic on civil registration. The Civil Registration office is focusing on strengthening online notification and registration of these civil registration events to ensure continuity. Minimum IT staff have been maintained to ensure the systems are up and running to ensure that all births and deaths are notified during this time. In addition, harnessing the use of all communication channels such as emails, social media, and online meeting avenues to coordinate and monitor performance of CRVS online activities.

Recommendations: 1) Enable and expand the use of online tools to notify and register civil registration events to allow for continuity in case of a pandemic like COVID-19.

2) A strengthened collaboration with key stakeholders like the Ministry of Health ensures that the events that occur in health facilities are notified even in the midst of a pandemic.

3) Ensure the integration of systems with the Ministry of Health for a smooth uninterrupted process of notification.¹¹



Samoa, 9 April 2020: 1) To date, Samoa's public service is still opening including the civil registration, but the hours of work have been reduced from 9 am–5 pm to 9 am–3 pm during the partial lockdown. But the civil registration will not be considered as an essential service in a full lockdown.

2) It is the business community that is mostly affected with closure of public leisure places like parks, restaurants, bars, buses (only taxis

and private cars are allowed now), and also the closure of schools and church services and the supermarkets only open from 6 am–6 pm. Given the strict measures on social distancing in the public and also the closure of bus transportation which is the main and the cheapest form of transportation in Samoa, and the closure of schools and church services, the registration of vital events has been really cut down by about 70 percent.

3) As mentioned before, Samoa's public service is still opening, including the civil registration but the hours of work have been reduced from 9 am–5 pm to 9 am–3 pm. Our employees have been put on rotational shift during the week to keep the distance of 2 metres apart in the working place. Given the slow registration at this time, we have also reduced the registration hours from 10 am–2 pm. We have also used office vehicles to pick up and drop off staff affected by the bus closure. We have also used the media to inform the public about opening hours and contact numbers for any registration matters. The notices are also on our website.

4) Honestly, before COVID-19, our registration system has been very low at about 70 percent for births and 30 percent for deaths. Before COVID-19, we already started working with the Office of the Attorney General to look into our existing legislation and identify areas to improve the public's compliance to the registration of births, deaths, and also marriages. The temporary lockdown of about 6 weeks has given us more time to assess our internal registration systems and processes further and then note areas to prioritize for improvement once we come back to normality. We have just appointed a new Registrar last month and there is a lot of work that needs to be done to improve our registration processes.

11 COVID-19 Survey.

5) Samoa has already embarked on the implementation of its National ID project which will also include the technical assessment of the existing civil registration system as it will be used as the foundational data for the digital National ID. Our office is leading this project. This is the opportunity that we have been waiting for some time to go in conjunction with our internal assessments and we are really excited about this big project which is funded by the World Bank. To date, the Legal Team contracted to draft the National ID legislation has just started last week and now working from a distance due to COVID-19. Secondly, our Technical ID team will also be on board in another two weeks. So we are expecting a lot of civil registration related activities in the next several months which we hope will lead to a more efficient identification and registration system for all Samoa residents and citizens in the future.¹²

Therefore, even if the countries did not formally designate civil registration as an essential service, country practices clearly indicate that all efforts were being made to accommodate the needs of the population in terms of registration of vital events. It is also evident that authorities were fully aware of the importance of having mechanisms to fully assess the adverse impact that the COVID-19 pandemic had on all aspects of governance and wellbeing of the population. They often acted to introduce immediate measures to access these data, by insisting on implementing a more direct interaction between the health and the civil registration sector and introducing online tools for reporting vital events.

Even if civil registration was designated an essential service, would that ensure its proper functioning? The following examples from responses provide an overview.



Lesotho, 22 April 2020: Lesotho considers civil registration as an essential service, however due to lack of PPE and other consumables to protect staff and enable compliance with WHO requirements on mitigating the spread of the virus, Ministry of Home Affairs adopted a policy to register current deaths.

Registration of vital events has been highly affected. The enforcement of lockdown measures, including the stay-at-home requirement to minimize the spread of the virus, led the Ministry of Home Affairs to conclude and adopt a policy that only deaths that occur during this time should be registered to enable the families to bury their deceased and claim from their respective insurances. This in turn has a major impact on civil registration as other vital events are not registered as and when they occur. This will in turn severely affect the completeness of the vital statistics and therefore render the vital statistics not much useful in the fight against COVID-19.

Death registration has been identified as an event that will be registered during the lockdown and/or containment period. Other events are registered after assessment has been made by the section head or supervisor that indeed are needed urgently. The staff have been reduced to prevent congestion and a shift system has been employed. All the plans made are in line with the State of Emergency Regulations enacted in the Government Gazette.

Only deaths that occur are registered. Robust registration activities will be undertaken after the lockdown to register all events.¹³

¹² COVID-19 Survey.

¹³ Ibid.



Mozambique, 22 April 2020: The civil registry is considered a priority in Mozambique. At the moment, the civil registry services are working on employee rotation every 15 days and the minimum services for the population are in place as we are still in phase 3 of emergency.

Low turnout, some of the civil registry offices have been closed. We have some impacts with COVID-19 on the records of vital events such as most marriages have been cancelled, of which only about 10 people can participate. The 120-day periods for free registration have been suspended, and the civil registry offices in the health units have been suspended for reasons of prevention of the employees there.¹⁴



Sierra Leone, 22 April 2020: Civil registration is considered an essential service in Sierra Leone because it compulsorily records all vital events, particularly births and deaths registration. Although Sierra Leone is yet to strictly implement a policy of non-essential services to stay at home, the Government notice of 9 April 2020 directed the Head of the Civil Service, the Human Resource Management Office (HRMO), and heads of Ministries, Department and Agencies (MDAs) to implement alternate working days for their staff. Registration Offices remain open throughout the country, though, with low turnout for registration as result of the restrictions on public gatherings.

COVID-19 has had a huge impact on the registration of vital events in Sierra Leone. Due to the Government's restrictions on travel and other movements, residents have limited access to Civil Registration Centres.

For example, the mass confirmation of registrants' personal details and new registrations planned for the first quarter of 2020 have been postponed; CRVS Stakeholder/Coordination meetings are affected as most members, especially development partners, are observing alternate working arrangements as well as restrictions on public gatherings. CRVS funding has been affected as donors have re-programmed their resources and support towards COVID 19.¹⁵

Consequently, the fact that civil registration was identified as an essential service, the particular and strong set of measures aimed at mitigating the impact of the pandemic, and the spread of the disease had nevertheless an adverse impact on the functioning of civil registration. Whether it was the lockdown or the limitations in terms of public transport or the reluctance of people to visit government offices such as civil registration offices for fear of contagion, the end result was the much lower registration of vital events even when being designated an essential government service.

The importance of having civil registration designated as an essential service, especially in emergencies, however, cannot be overemphasized. That is the first step in positioning civil registration as a critical service that governments need to establish, operate, and maintain in all circumstances. In that context, the United Nations Legal Identity Agenda issued a set of guidelines at the onset of the pandemic¹⁶ strongly emphasizing that civil registration should be considered an "essential service" mandated to continue operations during a pandemic. Although some physical offices may need to be closed, or opening hours limited or staggered, operations

¹⁴ COVID-19 Survey.

¹⁵ Ibid.

¹⁶ United Nations Legal Identity Agenda. 2020.

unstats.un.org/legal-identity-agenda/documents/COVID-19-Guidelines.pdf

should be maintained as far as possible, whether in-person, or virtual, during a crisis. Depending on the capacity, certain registration processes (such as legitimations) may be put on hold, but registration of births, deaths, fetal deaths, and recording of causes of death should continue as a priority.

To ensure that the civil registration function continued during the COVID-19 pandemic, countries/areas developed a number of solutions that would still enable population access to the necessary legal documents, such as birth and death certificates. These decisions and mechanisms varied, yet clearly indicate the necessity of analyzing their efficiency in terms of developing contingency planning and measures in the wake of this pandemic.

For example, Panama allowed that medical certificates — which are regularly used to issue a birth certificate, which is in turn a seed document — could be used temporarily as seed documents themselves:

 **Panama, 22 May 2020:** Birth and death notifications are considered valid so that the population can utilize them for further paperwork during the confinement period. For this, medical facilities must issue family members a simple copy with a fresh stamp. Death notifications are being utilized for burials. It is worth indicating that the Civil Registration Authority provides medical notification forms to health institutions and morgues, which are used with a threefold purpose: statistical, birth registration, and medical information. In this vein, delivery of these forms has been maintained on demand; this is done in hard copy and monitored in the computer system.¹⁷



Photo: Gerardo Pesantez / World Bank

 **Argentina, 21 April 2020:** Argentina developed a set of activities to maintain the civil registration function in the pandemic. Working arrangements to ensure service continuity to citizenry include diverse measures, such as planning and establishing scheduled appointments for in-person service, rotational shifts, availability of virtual media for inherent registration services and/or queries, phone communication channels for public service, as well as working remotely or teleworking for staff whose physical presence is not needed. In addition, the Civil Registration Authorities in the provinces and in the Autonomous City of Buenos Aires, have established, according to their competencies, several in-person service channels for the public (scheduled appointments and shifts) and remote services (through phone, official websites). Also, each authority has activated health protocols for their registrars and the public, observing measures adopted by the national government and the health authority. In particular, the National Register of Persons (RENAPER) has extended the validity of national identity documents; measures were also adopted in terms of

service to the public, scaling down due to the pandemic, and distributing service in the different offices and service areas by allocating previously scheduled appointments. In addition, RENAPER abolished the administrative periods and deadlines (Disposition 163/2020 of the National Directorate of RENAPER). At the same time, RENAPER released staff who are not in the essential or critical areas from attending physically; these staff are expected to perform their usual or similar duties from home. Also, RENAPER has authorized extraordinary leave, as a manner of prevention, with full pay, to staff who have to comply with social distancing due to a number of reasons, namely having arrived to Argentina from "affected zones," being classified as "suspicious cases," being 60 years of age or older, being pregnant, and belonging to risk groups (Disposition 164/2020 of the National Directorate of RENAPER).¹⁸

 **Armenia, 13 April 2020:** In the context of the state of emergency declared on 16 March to 12 April in regard with the prevention of coronavirus diseases in the Republic of Armenia, civil status acts registration territorial bodies shall register only deaths and births. The staff of Civil Status Acts Registration (CSAR) bodies have been placed at the three largest hospitals in Yerevan to ensure the birth registration of children in a safe environment. At the same time, registrations of paternity acknowledgement or marriages of the child's parents are conducted. The registration period for all other vital events has been suspended. Citizens have been forewarned that all registration will take place at the CSAR offices after the official restrictions of free movement are lifted.¹⁹

 **Philippines, 24 April 2020:** Civil registration is an essential service in the Philippines, although due to the current pandemic (COVID-19), delivery of civil registration services in terms of issuance of copies of civil registry documents is affected due to the Enhanced Community Quarantine (ECQ) implemented by the government.

COVID-19's impact on registration is the observed delay in the registration of vital events because of the quarantine period. Yet, in many parts of the country, the offices of the City/Municipal Civil Registrars are still functioning, as they are maintaining a skeletal workforce to ensure that civil registration services are still available in their locality.

Establishing a skeletal workforce in civil registry offices, including the Civil Registration Service of the Philippine Statistics Authority (PSA), caters to the very urgent need for civil registry documents, especially the overseas Filipino workers. PSA established hotlines wherein citizens can inquire about the status of their previously forwarded civil registry documents before the quarantine period.

The PSA issued a memorandum circular to all civil registrars in the country on guidelines to follow regarding the registration of vital events during this COVID-19 period. The circular also highlights the need to ease the requirements regarding the delayed registration of vital events due to the pandemic.²⁰

 **Iran, 14 April 2020:** Civil registration, especially birth and death registration, is one of the basic services in the country, and except for public and national holidays, this service is not closed, especially by the National Organization of Civil Registration.

18 COVID-19 Survey.

19 Ibid..

20 Ibid.

Activating the “Notification Network” for vital events registration. Considering the necessary actions in civil registration offices to ensure social distancing, notifying vital events electronically to registration offices, as possible.

Deadlines for vital events notification, such as birth and death events, are relaxed during COVID-19 and also penalties for delay notification are not considered. However, due to the existence of the Notification Network, the civil registration offices are informed of the occurrence of the event. By the way, registration and issuance of documents may be delayed. Civil registration offices are responsible after COVID-19 containment to register vital events that took place during the COVID-19 pandemic at any time.

Civil Registration Coordination Council in provinces and cities are activated. The Civil Registration Coordination Council in cities includes members of Forensic Medicine, Post, Municipality, Governorate, Justice, Health Network, and Department of Agriculture.²¹

As presented, countries around the world introduced a set of measures intended to enable the functioning of civil registration in the COVID-19 pandemic. Those measures included

- a less rigorous interpretation of rules and procedures for registering the occurrence of a vital event;
- a focus on registering births and deaths as a primary concern and postponing the registration of other events;
- instituting and deploying coordination mechanisms at the local level that bring together different institutions involved in the registration process;
- measures for maintaining physical distancing and other protective protocols; and
- waiving of the fees and simplification of the registration processes.

Yet another set of actions has been introduced in a number of countries in attempting to ensure the registration of vital events continues to function even in times of pandemic, and these relate to online registration. Computerization of civil registration is one of the major international recommendations, as contemporary requirements placed on the civil registration system in providing services to the population and the technological environment call for complete and comprehensive computerization of all registration and production of vital statistics. The computerization of civil registration is even more imperative as other government functions are increasingly relying on computer technology, reflecting the development of e-government. With the introduction and the massive use of the Internet, populations expect similar functionality in the delivery of services by the government as well.²²

Data collected indicate that the COVID-19 pandemic certainly acted as a catalyst in this respect. A number of countries either introduced or strengthened online applications for registration of vital events.



Rwanda, 22 April 2020: In Rwanda, civil registration is considered as an essential service whereby the recording of civil events is done at sector level (to make it more affordable and near to the service seekers) by a civil registrar. Currently Rwanda records nine civil events, namely birth, marriage, death, acknowledgment of a child born out of wedlock, adoption, guardianship, divorce, legitimization, and annulment of marriage. In

21 COVID-19 Survey.

22 United Nations. 2014.

order to record these events, there is a need of a declarant who requests the record of civil events and witnesses for some events like marriage, etc. Due the outbreak of COVID-19 in Rwanda, whereby citizens are required to stay home, recording of civil events was put on hold, except the delivery of civil events certificates that are delivered online through Irembo platform.²³

The notifications of vital events occurring in health facilities is continuously done. However, the registration of these events at the Sector office will be done after the containment period. The registration into the National Population Registry has continued; CROs (civil registration officers) have online access and they can update events using applications received via online portal Irembo.

For the application of vital certificates, such as a birth certificate, the declarant, while applying for the certificate, uploads the documents in their possession (medical certificate [birth or death notification] for births and deaths events at health facilities or cell certificate for those occurring at home) and the Civil Registration Officer can issue these certificates using the online portal Irembo. This process is done entirely online from application to issuance of the certificate and does not require physical contact face to face.²⁴



Costa Rica, 16 April 2020: In Costa Rica, an online notification system has been implemented for births and deaths, which allows most of these types of notifications to be automatically done from hospitals. It even allows, at the same time of filling the notification form, scheduling registration appointments, which minimizes the risk of no-show and of delays of medical notifications.

Notification of marriages is also available online. In regard to judicial services, these are still being delivered through a single-entry point (kiosk) where documents are received; queries are tended via the institutional webpage.²⁵



Georgia, 27 April 2020: Civil registration is considered as an essential service in Georgia. All representatives of the managerial positions are required to report for duty but all other employees, including essential and non-essential services, are requested to fulfill their obligations from home.

COVID-19 did not have much impact on the registration of vital events as far as the majority of registrations (including birth and death) were available online over years. But as for those that were not available electronically, with intensive and immediate efforts of the authority, they also became available online in the shortest period of time. In regards to the functionality of the civil registration authority, namely, the Public Service Development Agency (PSDA), thanks to introducing and promoting e-governance in its services over the years, as well as a result of the immediate measures amidst the Coronavirus, PSDA quickly adapted to the changed circumstances and managed to duly operate even in the emergency situation.

The working arrangements that have been implemented, *inter alia*, are as follows:

- With the aim of ensuring distant work of the overwhelming majority of PSDA employees, the information technology infrastructure was fully adapted in the shortest period of time;
- Those who are requested to report for duty are regularly provided by the Agency with the disinfection and hygienic equipment;

23 irembo.gov.rw/rolportal/web/rol

24 COVID-19 Survey.

25 Ibid.

- PSDA made almost all services (especially the most demanded ones) available electronically for any customer, with minor exceptions;
- Customers can receive an electronic copy of the requested document (a birth and death certificate) through the website with protection of privacy and confidentiality. The electronic copy has the same legal force as the original (hard copy) document;
- During the emergency situation, all ready (hard copy) documents (including birth and death certificates) are delivered to a customer via post offices with protection of privacy and confidentiality; and
- PSDA also ensures outreach of the population on its services and their availability on a daily basis.²⁶

The fact that computerizing civil registration is critical to meeting international standards of universal and mandatory registration of all vital events occurring in normal circumstances, and even more so in times of disasters, is further supported by examples of countries that did not report adverse impacts of the COVID-19 pandemic in discharging registration services. Namely, these countries' computerized civil registration systems, with minor adjustments, were able to function without interruption.



Bahrain, 9 April 2020: In Bahrain, civil registration, including the registration of birth and death, is in the custody of the National Statistics Office and is considered very essential and used heavily for the generation of vital and population statistics. Working from home has been applied to some jobs to minimize the contact among team members. Employees are still reporting to duty in the offices to ensure service continuity.

All civil and vital registration are offered online and all cases can be registered electronically including births, deaths, marital statuses, and issuance of ID cards. Registration of vital events has not been affected so far.

Most cases are serviced through the web portal while service centres are kept open to receive cases that require personal attendance. Employees are asked to apply the recommended safety measures against the risk of infection.

Births and deaths are still reported electronically online by the hospitals. The Ministry of Justice reports to us the marriage and divorce cases. Documents are delivered to the applicants via the post office after clients submit their requests electronically via the web portal.²⁷



New Zealand, 23 April 2020: Civil registration is considered an essential service in New Zealand. Birth and death registration is able to be completed entirely online, with certificates being sent to families using contactless courier. Due to lockdown restrictions, only limited registration staff are working from offices, however staff are able to work to deal with all births and deaths. Some less vital services — such as marriage registration, correction of errors, name or gender changes — were not being delivered during the five-week lockdown but will recommence when this ends.

There has been no significant change in demand for civil registration services as a result of COVID-19. Our birth registration and parenting tool, www.smartstart.services.govt.nz, continues to be used heavily, and there has been no reduction in registration rates. There has been a reduction in calls to our offices,

26 COVID-19 Survey.

27 Ibid.

but this has been balanced by an increase in emails. While our staff need to be in the office to respond to calls, they are able to answer emails from home.

In addition to maintaining core services, the Registrar-General has been part of the leadership for the national COVID Fatality Response. This has included dialing reporting on death rates using online death notification data, regular assessment of mortuary and burial/cremation capacity, and providing additional information through police to families of deceased.

Regular email newsletters are being sent to all marriage celebrants and funeral directors with advice on how to respond to COVID-19.²⁸



Republic of Korea, 10 April 2020: In

Korea, civil registration is an essential service and there are no restrictions on regional containment or movement due to COVID-19, and most of civil registration staff are working in their offices and civil registration is being carried out without any disruption.

The COVID-19 effect on civil registration appears to be minimal, and even if COVID-19 confirmed cases occur in the office, the office will operate again within a few days after the shutdown for preventing the spread of the virus.

Until now, there has been no situation that does not guarantee the continuity of civil registration, but in the case of birth, expansion of the online birth registration system is being promoted.

There are no special recommendations, and CRVS in Korea are reported and processed according to schedule.²⁹

Another considerable source of data for assessing the impact of the COVID-19 pandemic on the functioning of civil registration and the production of the resulting vital statistics was a set of webinars developed by the UN Legal Identity Task Force, the Global CRVS Group, and the UN regional commissions, covering Asia and the Pacific, Africa, and Latin America. These webinars provided an opportunity for civil registration authorities in these regions to exchange experiences and practices in terms of functioning during the pandemic. Approximately 50 countries participated in total and the deliberations and relevant documentation illustrate the difficulties and obstacles encountered on a daily basis in discharging registration services.³⁰

Two major observations emerged from this process. The first was the fact that the registration of vital events, primarily of births and deaths, decreased noticeably in a majority of participating countries, as a consequence of difficulties and obstacles in ensuring regular functioning of the national civil registration system. The population, fearful of being exposed to the virus, was reluctant to approach civil registration offices to register the occurrence of births and deaths. Locking down people in their homes also resulted in major difficulties in terms of reaching a civil registration office. And, even once reached, the office may have been completely closed or working reduced hours.

Simultaneously, the decrease in registration of vital events was also due to the fact that in a number of countries, the links between health institutions and civil registration that were functioning in normal circumstances either weakened or broke altogether. This was a result of partial or full closure of civil registration

28 COVID-19 Survey.

29 Ibid.

30 United Nations Statistics Division. 2020. unstats.un.org/legal-identity-agenda/events/

offices and moving to telecommuting as one of the measures aimed at mitigating exposure to the virus. Although many and varied actions were undertaken, as presented above, the data from countries participating in these webinars document a decrease in the numbers of registered births and deaths. And as also documented in the examples above, a number of countries are expecting a significant backlog and are devising different strategies to tackle it in the wake of the pandemic.

The second observation was the fact that in the countries that were able to maintain steady functioning of the civil registration system, the number of registrations of deaths displays a significant increase compared with the same period in the previous year. These “excess deaths” require considerable investigation as they can be attributed to the COVID-19 disease only in an indirect manner and in a certain percentage that needs to be further established and analyzed. Due to lockdowns and in general avoiding visiting clinics and hospitals for illnesses other than COVID-19, a proportion of “excess deaths” may

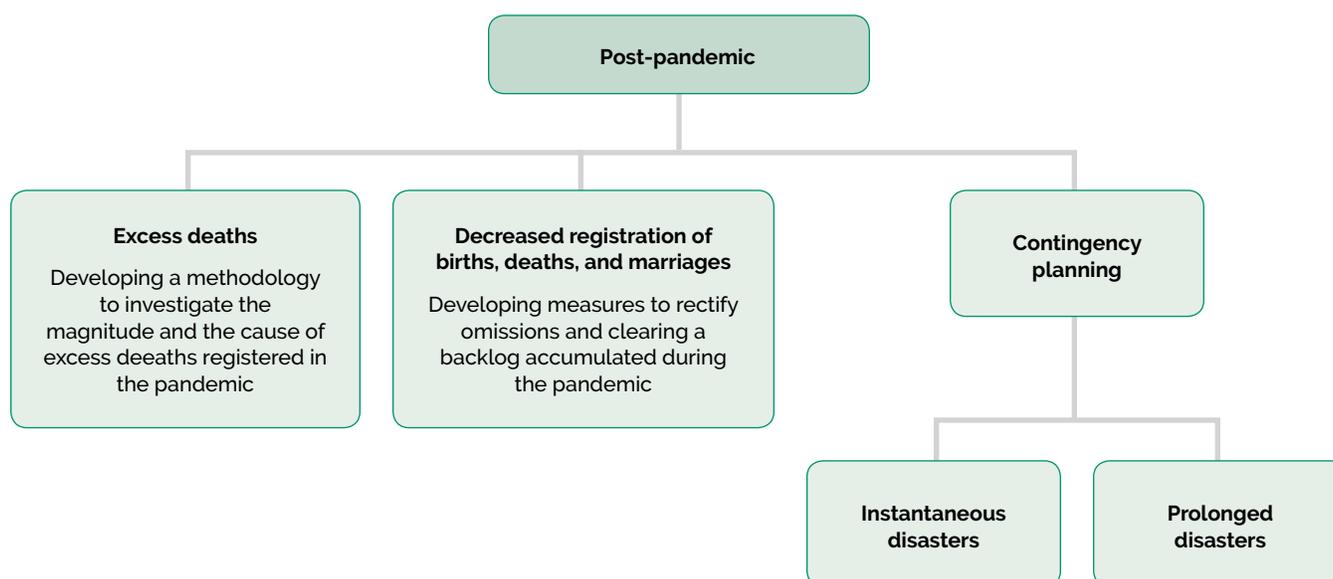
have occurred for lack of treatment of certain diseases in times of pandemic.

Consequently, in the wake of the COVID-19 pandemic and in preparing for future disasters, governments in general, and civil registration systems in particular, need to take action on two major issues:

- Rectify the number of vital events that occurred during the pandemic to more accurately reflect the actual occurrences of births and deaths and investigate “excess deaths,” thus providing a solid source of comprehensive vital statistics that would quantify the costs of the pandemic in terms of lives and years lost.
- Develop detailed strategies and contingency planning to ensure the appropriate functioning of national civil registration systems in disasters yet to come.

These issues and others that need to be addressed are shown in Figure 3 and appear in bold in the text that follows.

Figure 3: The way forward.



In terms of **excess deaths**, in a number of countries, civil registration recorded an increased number of deaths in the first part of 2020 compared with previous years. Hence the need to investigate excess deaths in terms of volume and cause of death in an attempt to provide answers concerning COVID-19 mortality and its impact on the overall structure of mortality by cause of death, due to delayed treatment of various illnesses. Developing and putting firmly in place such harmonized methodology and infrastructure, in terms of interoperability and access to records from health, civil registration, funeral homes, and other relevant institutions, would be required and applicable in case of future disasters and increased numbers of deaths. Therefore, the following actions are required:

- Develop technical mechanisms and procedures and promote harmonization and a common methodological approach in analyzing and interpreting excess deaths;
- Put in place and harmonize data from health institutions, civil registration, funeral homes or similar, and religious institutions; and
- Undertake detailed analysis of mortality statistics time series in terms of assessing the changes caused by the pandemic.

A considerable number of countries reported that the registration of major vital events decreased during the pandemic. Rectifying the **decreased registration of births, deaths, and marriages** might involve the following (the list is not meant to be exhaustive):

- Developing and launching a broad publicity campaign emphasizing the need to register births and deaths that occurred during the pandemic and that were not reported or recorded;

- Adjusting the operations to accommodate the additional reporting and clearing of the backlog (e.g. extend working hours, increase the number of staff);
- Re-establishing the links with the health sector and national statistical office to ensure the production of reliable statistics to quantify the cost of the pandemic in terms of lives and years lost; and
- Eliminating fees for late registration and extending the deadlines for registration of births and deaths.

In the post-pandemic time, countries need to develop detailed and comprehensive **contingency plans** in case of disasters, although not all disasters are similar, hence the distinction. **Instantaneous disasters** are events that cause instant destruction and harm, such as earthquakes, tsunamis, flooding, and similar. Contingency planning for these disasters should consider the following:

- Developing guidelines for establishing procedures for abbreviated registration of deaths, featuring, for example:
 - Expanding the list and eligibility of informants;
 - Establishing processes/waivers for missing documents; and
 - Suspending fees.
- Similarly, for births, ensuring the immediate deployment of registrars in the affected region to ensure delivery of services.
- Establishing auxiliary registrars who will be trained ahead of time in discharging the full responsibilities of civil registrars during the instantaneous disaster; these may be administrative staff in local civil registration offices, or priests or local community leaders, local police chiefs, or attorneys-at-law.

In addition to the measures for instantaneous disasters, the contingency planning for **prolonged disasters**, such as the COVID-19 pandemic and similar epidemics that are expected to extend over a period of time, should take into consideration the following:

- Developing a detailed contingency planning document that would address a multitude of topics;
- Revisiting the legislative framework for civil registration to assess the need to adjust it in terms of contingency planning;
- Instituting and testing various solutions to ensure the functioning of civil registration services in times of prolonged movement restrictions, for example, and all logistical challenges such as the number of personnel, working hours, and protection measures; and
- Ensuring that the government treats civil registration as an essential service that needs to operate in all circumstances, and providing appropriate resources for contingency planning and implementation.

Based on all the findings, documentation, and learning from national practices in terms of civil registration functioning in times of the COVID-19 pandemic, and in order to ensure adherence to international standards for civil registration and vital statistics even in times of pandemic, the following emerges as a priority:

The most critical, crucial, and imperative undertaking in the wake of the COVID-19 pandemic in terms of enabling universal registration of all vital events occurring in a country is the **digitization and computerization of the civil registration system and apparatus**. This has proved to be the unique factor to ameliorate the impact of this pandemic and to ensure that civil registration is firmly embedded in the legal identity management model that the United Nations calls to be implemented in all Member States by 2030.

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Applying a “Systems Lens”: CRVS and Fragility in the Digital Age

by Lauren Harrison and Liliana Suchodolska

INTRODUCTION

The benefits of civil registration and vital statistics (CRVS) cascade from governance and peace to human rights and social protection, to the economy. In this light, CRVS systems represent an essential tool for state-building and good governance in fragile and conflict-affected states. Registering vital events, including births, marriages, and deaths, is crucial to provide basic population statistics. This enables better monitoring of population movements, demographic changes, and potential health threats. CRVS offers immediate value during times of crisis and in the aftermath, signifying a strategic, cost-effective allocation of limited financial and human resources in fragile contexts.¹

CRVS systems allow governments to establish frameworks for state administration. This informs service delivery in areas such as health and education to support inclusion and the development of human capital. For citizens, civil

registration provides legal recognition of their identity and their social, economic, political, and human rights — including the right to vote.² Thus, CRVS has the potential to strengthen the relationship between governments and citizens, helping to enhance state legitimacy.³ Setting up a CRVS system is a key step in building accountability and, ultimately, trust in state services.⁴

Despite their promise, CRVS systems often remain underdeveloped and underfunded in fragile contexts. Bridging these shortfalls and bringing CRVS onto the fragility agenda is a vital step forward in the Decade of Action.

Why now? CRVS and the COVID-19 pandemic

The COVID-19 pandemic has been disruptive for the most fragile and conflict-affected countries.⁵ The dual shock to public health and service delivery has amplified the multiple vulnerabilities of CRVS systems.⁶ Missing, incomplete, and

1 Brolan, C. E. and Gouda, H. 2017. doi.org/10.1093/medlaw/fwx021

2 Livingston, A. 2019. blogs.lse.ac.uk/mec/2019/05/03/civil-registration-and-legal-identity-in-humanitarian-settings/

3 Deneckere, M. et al. 2015. ecdpm.org/talking-points/civil-registration-vital-statistics-conflict-emergency/

4 WHO. 2012. who.int/healthinfo/CRVS_ResourceKit_2012.pdf

5 OECD. 2020. oecd.org/dac/states-of-fragility-fa5a6770-en.htm

6 da Silva, J. M. and Charron, D. 2020. oecd-forum.org/posts/counting-on-each-other-how-can-we-fight-the-spread-of-covid-19-when-half-of-deaths-worldwide-go-unrecorded



Photo: Dominic Chavez / World Bank

delayed measurements of population mortality make it difficult to monitor the effects of the pandemic. Evidence shows that access to civil registration is being hindered because of social distancing, restricted movement, closure of local government services, and general apathy when it comes to going to registration centres.⁷ This has implications not only for immediate responses to the pandemic but also for efforts to mitigate the long-term socio-economic effects of the crisis.

When the COVID-19 pandemic started, the United Nations Statistical Division (UNSD) and its 2020 UN Legal Identity Agenda worked to foster a holistic approach to civil registration, vital statistics, and identity management.⁸ The UNSD's survey on the impact of COVID-19 on civil registration worldwide highlighted three main reasons why countries had trouble delivering registration services, including these:

- Governments not counting civil registration as an essential function during the pandemic;
- The population being reluctant to inform civil registration authorities about vital events because people were afraid of getting the virus; and
- Health institutions being overburdened with the volume of incoming patients.⁹

However, low- and middle-income countries, especially those defined as fragile and conflict-affected states, struggled to sustain and improve civil registration even before the pandemic. Well-functioning CRVS systems rely on factors that pose unique challenges in fragile contexts:¹⁰

- Strong legal frameworks;
- Effective institutional arrangements;
- Technical interoperability;
- Broad-based access to services; and
- Community participation.

The pandemic has highlighted the need to invest in country systems for high-quality data and statistics, for which CRVS are an essential input.

Even in the midst of the crisis, fragile contexts have adopted interventions to develop CRVS. The Democratic Republic of the Congo developed a continuous communication system to remind the population that civil registration services continued despite lockdowns. The government organized "mobile offices" in trucks and field vehicles to ensure coverage and continuity

7 African Union. 2020.

au.int/en/newsevents/20200810/commemoration-africa-civil-registration-and-vital-statistics-crvs-day

8 Mrkić, S. 2020. unstats.un.org/legal-identity-agenda/documents/Excess_deaths.pdf

9 Ibid.

10 Centre of Excellence for CRVS Systems and GPSDD. 2019. au.int/sites/default/files/newsevents/workingdocuments/37474-wd-crvs-v-good_practices_in_linking_crvs_and_id_management_systems.pdf

in remote, hard-to-reach areas.¹¹ Since the experience of the Ebola outbreak, there is an increasing consensus that pandemics are the best time to fully embrace and implement innovative solutions for registration.^{12 13} Although COVID-19 has revealed that existing CRVS systems are not resilient to emergencies, it has led to more rapid introduction of information and communications technology (ICT) solutions, especially for death registration.¹⁴ In Palestine, the Ministry of the Interior launched a new initiative for digital birth and death registration in partnership with the Ministry of Health and the UN Development Programme (UNDP) as part of UNDP’s COVID-19 response in September 2020.¹⁵

Investing in CRVS has significant potential for closing critical information gaps that disrupt effective aid delivery and governance as we plan for a post-COVID era. While challenges of implementing comprehensive CRVS in fragile contexts are great, their transformative potential is not trivial. The process of implementing systems can strengthen the flow of data to inform policy; it also has unique potential to target limits in state capacity and to strengthen the enabling environment to bring about stability and social cohesion. This brief highlights the need for increased investments in CRVS systems in fragile

contexts. It outlines the unique challenges and opportunities in the realm of statistical capacity development and digital approaches.

CRVS IN FRAGILE CONTEXTS: AN OVERVIEW

The Organisation for Economic Co-operation and Development (OECD) defines fragility as “the combination of exposure to risk and insufficient coping capacity of the state, system, and/or communities to manage, absorb, and mitigate those risks.”¹⁶ Current limitations in CRVS systems in fragile contexts work on both sides of this equation: they amplify risks for the most vulnerable populations and undermine key mechanisms for effective governance.

As we enter the Decade of Action, “the furthest behind are being left further behind” in fragile contexts.¹⁷ The OECD States of Fragility 2020 framework identifies 57 fragile contexts, 13 of which are “extremely fragile.”¹⁸ This framework is based on 44 indicators structured across five dimensions of fragility: economic, environmental, political, security, and societal. As of 2020, these 57 fragile contexts represent nearly one-quarter of the world’s population but more than three-quarters of the global population living in extreme

11 UNSD. 2020. unstats.un.org/legal-identity-agenda/covid-19

12 Shibuya, K. and Gilmore, S. 2015. [thelancet.com/journals/lancet/article/PIIS0140-6736\(15\)60765-6/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(15)60765-6/fulltext)

13 Amouzou, A. et al. 2020. dx.doi.org/10.7189%2Fjogh.10.020368

14 See, for example, Vital Strategies and WHO. 2020. [who.int/publications/i/item/revealing-the-toll-of-covid-19](https://www.who.int/publications/i/item/revealing-the-toll-of-covid-19); UN Legal Identity Agenda Task Force. 2020. apai-crvs.org/sites/default/files/public/Maintaining%20Civil%20Registration%20and%20Vital%20Statistics%20during%20the%20COVID-19%20pandemic%20%281%29.pdf

15 UNDP. 2020. ps.undp.org/content/papp/en/home/presscenter/articles/2020/ministry-of-interior-launches-digital-birth-and-death-registrati.html

16 OECD. 2020.

17 Ibid.

18 OECD. 2020. The OECD’s list of 57 fragile contexts is used throughout the brief, as well as aggregate fragility scores (scaled from 0–100) for fragile and non-fragile contexts as the basis to analyze current trends in CRVS development in relation to fragility. For further information on OECD States of Fragility, including the underlying data and methodology for the framework, please see compareyourcountry.org/states-of-fragility/overview/0

poverty. Another 26 million people are expected to fall into poverty in the wake of the COVID-19 pandemic. Moreover, the majority of people living in situations of conflict and displacement are concentrated in these contexts. None of the 57 fragile contexts are on track to meet the ambitions of the Sustainable Development Goals (SDGs) for hunger, health, or gender equality.

This worrying trend holds in terms of CRVS coverage in fragile contexts as well. Sub-Saharan Africa, for example, where 8.6 out of 10 people live in fragile contexts,¹⁹ was home to one-half of the global population without legal identification (ID) in 2018.²⁰ One in three unregistered children in the region live in just three countries: the Democratic Republic of the Congo, Ethiopia, and Tanzania;²¹ the OECD's 2020 States of Fragility framework classifies all three as fragile. Ethiopia and Nigeria are among the top four countries with the largest number of individuals without ID, both in absolute terms and as a proportion of the total country population.²² Overall, there has been little improvement in birth registration levels in the region; slightly more than 4 in 10 children under age 5 were registered at the start of the Millennium Development Goals era, a figure that is largely unchanged today.²³ If these trends

continue, there could be close to 115 million unregistered children under age 5 in sub-Saharan Africa by 2030.²⁴

Current CRVS coverage trends

A fundamental and systemic principle is that the civil registration system should form the basis for individual identification and for recording "entry into" and "exit from" population registers.²⁵ Birth registration²⁶ provides a way of identifying individuals by assigning them with unique identity numbers at birth: these can link to civil registration records, national identity, and other functional identity registers throughout a person's life. A birth certificate gives its owner access to essential rights and services, such as health care, education, and social welfare.

Looking to the Decade of Action, renewing a focus on CRVS specifically in fragile contexts is essential to achieve the SDGs. The SDG framework captures both birth registration and legal identity under SDG target 16.g. CRVS also has a vital role to play in monitoring SDG implementation. Detailed mortality and cause-of-death data in CRVS systems are relevant to eight SDG targets.²⁷ Overall, 67 unique indicators in the global SDG monitoring framework require information from CRVS.²⁸

19 OECD. 2020.

20 World Bank. 2018. Author's calculations. id4d.worldbank.org/global-dataset

21 UNICEF. 2017. data.unicef.org/resources/snapshot-civil-registration-sub-saharan-africa/

22 World Bank. 2018.

23 UNICEF. 2017.

24 Ibid.

25 African Union. 2019b. au.int/sites/default/files/newsevents/workingdocuments/37474-wd-crvs-v-integrating_civil_registration_and_vital_statistics_systems_and_legal_identity_management_in_the_digital_era.pdf

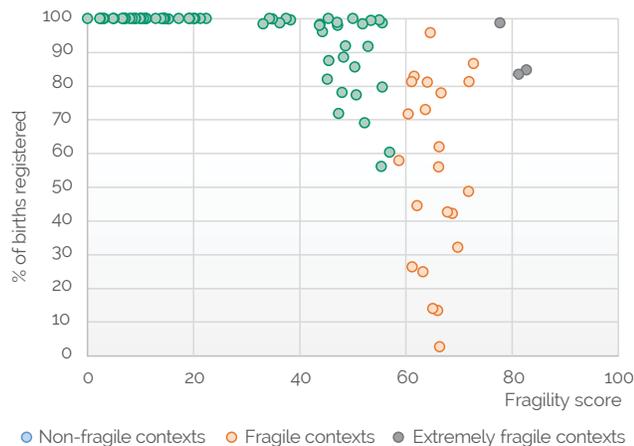
26 Birth registration is used throughout the brief as a proxy for CRVS coverage, since it provides the best, most recent data. However, coverage for other vital events, including death and marriage registration, is likely to be lower than for birth registration in both fragile and non-fragile contexts.

27 Mills, S. et al. 2017. openknowledge.worldbank.org/bitstream/handle/10986/27533/115150.pdf

28 Ibid.

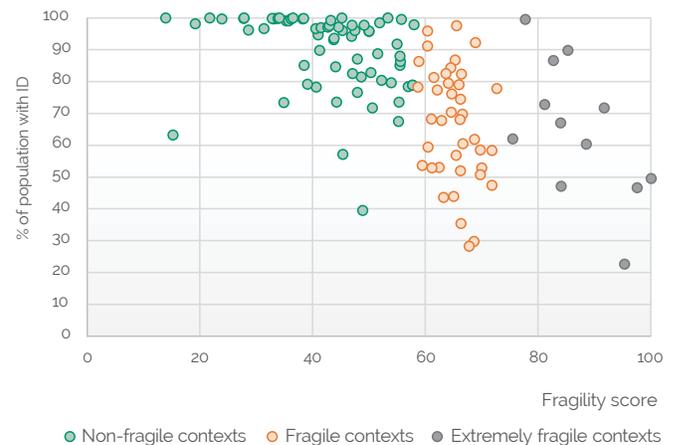
As shown in Figure 1, the OECD framework classifies all countries reporting the lowest levels of birth registration coverage²⁹ as fragile. However, we can also observe fragile contexts reporting coverage across a wide spectrum, with some near 100 percent and others near zero. Fragility in itself is not a strong predictor of birth registration performance. With regard to legal identity (Figure 2),³⁰ we can see similar trends, although there is less wide-ranging performance across fragile contexts. Many individuals living without legal ID are concentrated in fragile contexts.

Figure 1: Birth registration coverage by fragility score.



Sources: UNICEF Birth Registration Coverage, World Bank ID4D Global Dataset 2018; OECD, States of Fragility 2020

Figure 2: Legal identity coverage by fragility score.



Sources: World Bank ID4D Global Dataset 2018; OECD, States of Fragility 2020

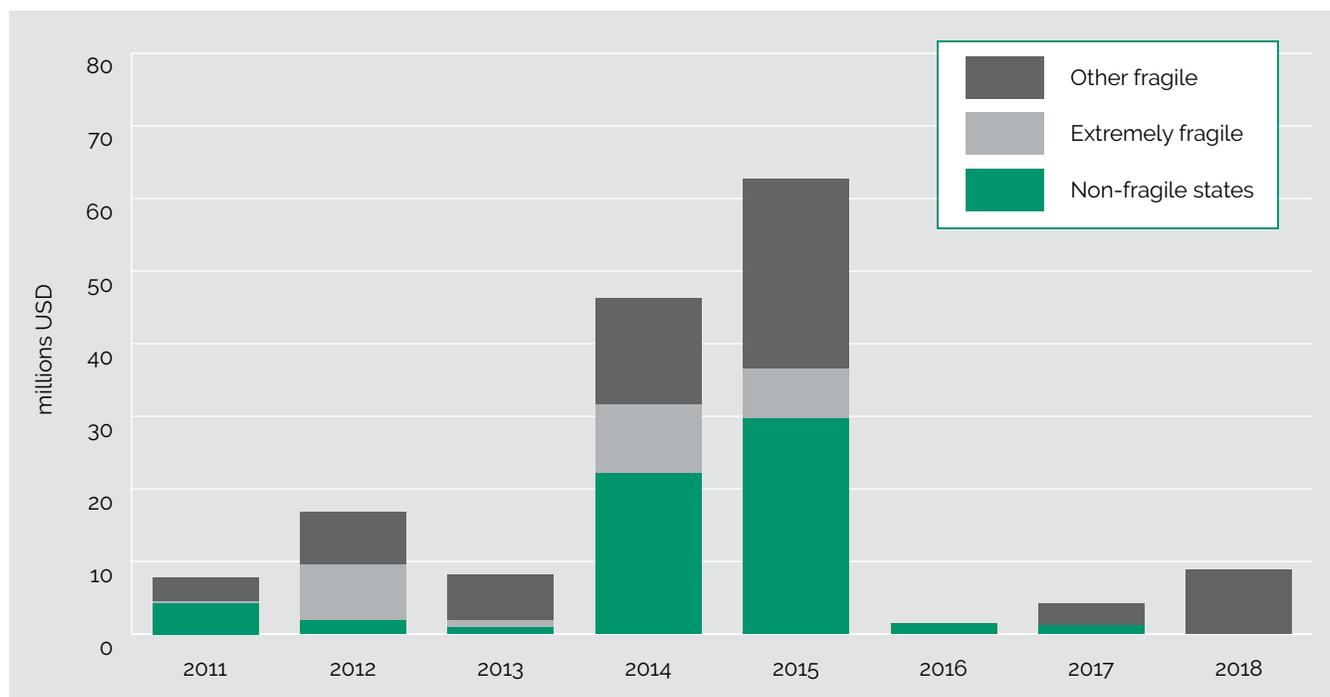
Current financing trends for CRVS

As shown in Figure 3, financing for CRVS projects as a share of overall support for statistics³¹ has been erratic over the last decade. There has been some focus on financing CRVS in fragile contexts, although extremely fragile contexts have received comparatively less attention over the years. Support reached an estimated high of US\$62.8 million in 2015, which was followed by a sharp decline in the early years of the SDG agenda. Estimated financing for CRVS in 2018 is at US\$8.8 million globally and is concentrated in fragile contexts.

29 The UNICEF birth registration dataset (2017) covers 25 of the 57 fragile contexts. Reference years vary by country.

30 The World Bank’s ID4D dataset (2018) captures data on 52 of the 57 fragile contexts.

31 The analysis in this section is based on data from the PARIS21 PRESS2020 Report, which analyzes support for statistics among bilateral and multilateral donors. Additional relevant projects from the OECD Creditor Reporting System (CRS) have been captured directly using a text-mining methodology. This is unlikely to represent the full picture of financing for CRVS, as some technical projects and investments are likely to be channelled through other ODA sectors (such as health). However, analyzing investments in CRVS as a share of overall support for statistics is imperative to understand investments at the systems level (see the section on capacity development). For further details on the PRESS methodology and data, please see paris21.org/news-center/news/press2020-under-covid-19-worrying-stagnation-funding-despite-growing-data-demand.

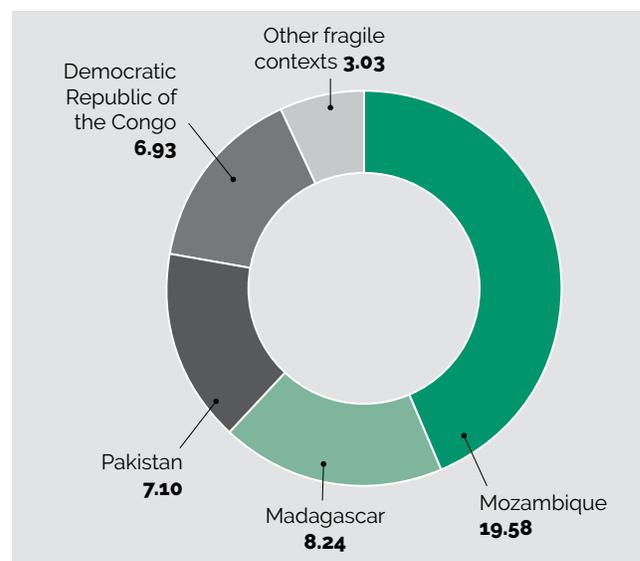
Figure 3: Support for statistics – Financing for CRVS, millions USD.

Source: Author's calculations from PARIS21 PRESS 2020 dataset

Notably, this follows the trend in support for statistics overall among Development Assistance Committee (DAC) donors, which reached a high in fragile contexts in 2015.³² DAC support is now US\$37 million, a 37 percent reduction since 2015 and just 0.1 percent of official development assistance (ODA) in fragile states overall.³³

Looking at the recipient level, between 2015 (at a high) and 2018, a total of US\$44.8 million in overall support for statistics was allocated to developing CRVS in fragile contexts. Of that funding, investments were concentrated mainly in four countries: Mozambique, Madagascar, Pakistan, and the Democratic Republic of the Congo (Figure 4). All of these countries benefited from at least one significant ODA injection during this period. Only Mozambique received sustained investments across multiple years. Collectively, these countries account for 93 percent of

financing for CRVS in fragile contexts for the statistics sector over the past four years.

Figure 4: Country allocation of financing for CRVS, 2015–2018, in millions USD.

Source: Author's calculations from the PARIS21 PRESS 2020 dataset

³² OECD. 2020.

³³ Ibid.

These findings hold a number of important implications for strengthening CRVS in fragile contexts.

- First, as a share of overall support for statistics, CRVS financing has been concentrated in fragile contexts in recent years. Donors should strive to protect these investments and increase financing for statistics overall to accelerate development of CRVS systems.
- Second, to realize the ambition of the SDGs in the Decade of Action, donors should diversify their investments across a wider set of fragile contexts, particularly those lagging behind in registration and legal identity coverage.
- Third, in light of the current limitations in financing, it is vital to understand how to design CRVS interventions in fragile contexts to maximize the impact of future investments.

These points highlight the importance of seeing CRVS as a tool not only to build foundational statistics but to respond to the underlying drivers of fragility.

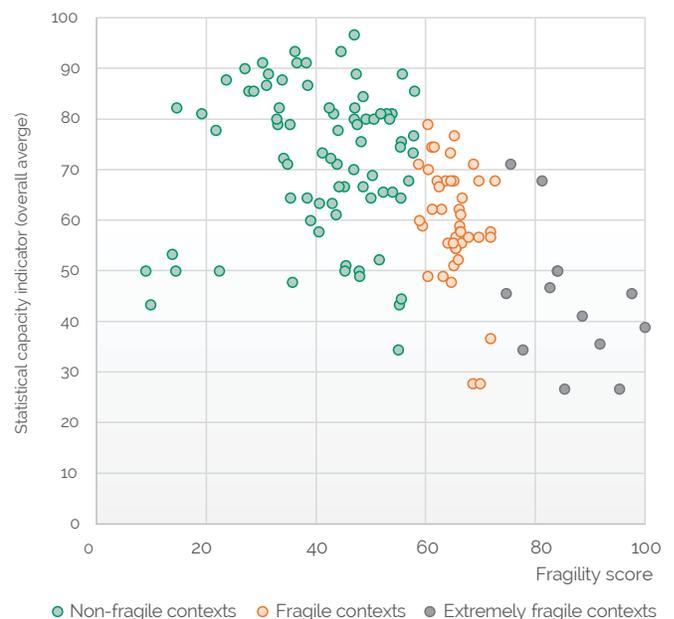
TARGETING INVESTMENTS IN CRVS SYSTEMS IN FRAGILE CONTEXTS

The motivation for increased engagement and financing for CRVS in fragile contexts is clear, but the question remains: How to approach and target such interventions? Based on insights from the field, solutions outlined in this section emphasize the role of systems-level capacity development and new digital solutions to advance CRVS coverage in fragile situations.

Capacity development

Limited statistical capacity is common in fragile contexts. As shown in Figure 5, lower scores in the World Bank Statistical Capacity Indicator (SCI) correlate with higher levels of fragility across countries. The SCI monitors performance on statistical outputs on three dimensions: methodology, source data, and periodicity.³⁴ The OECD States of Fragility 2020 highlighted the disparities between fragile and non-fragile contexts in SCI performance, particularly in extremely fragile contexts.³⁵

Figure 5: Statistical capacity, by fragility score.



Source: World Bank Statistical Capacity Indicator, 2019; OECD, States of Fragility 2020

The three criteria for the SCI are analyzed based on a range of statistical outputs. These include core survey and census products, economic statistics, and CRVS. Notably, as Lange recently outlined,³⁶ fragile contexts perform much better in survey and census production than in CRVS

34 World Bank. n.d. datatopics.worldbank.org/statisticalcapacity/#:~:text=The%20World%20Bank's%20Statistical%20Capacity,sources%3B%20and%20periodicity%20and%20timelines

35 OECD. 2020.

36 Lange, S. 2020. oecd-ilibrary.org/development/key-trends-in-development-co-operation-for-national-data-and-statistical-systems_1ce044d2-en

coverage in the SCI. This disparity reveals the unique capacity development challenge linked to CRVS in fragile contexts. Fragile governments may regularly produce surveys and censuses with support from development partners while still lagging behind in institutionalizing effective CRVS systems. This calls for a renewed emphasis on targeted strategies to develop these systems.

Unpacking the link between CRVS and statistical capacity

PARIS21's Capacity Development 4.0 framework³⁷ (CD4.0) considers various aspects of developing statistical capacity on the level of the system, the organization, and the individual. Each of these levels has implications across five target areas:

- Resources;
- Skills and knowledge;
- Management;
- Politics and power; and
- Incentives.³⁸

Typical interventions to improve CRVS practice often focus on strengthening skills and knowledge at the organization level, emphasizing data production processes, doing quality assurance, or bringing in an innovative solution. These efforts have had some success, particularly with birth registration, where even some extremely fragile contexts have excelled (Figure 1 above). However, to achieve loftier goals related to comprehensive CRVS systems — such as improved death and marriage registration

and legal identity for all — investments in capacity development must go toward system-wide initiatives that address the resource, management, and political aspects of sustainable CRVS reforms.

In practice, these system-driven approaches have often been missing from CRVS interventions. Cobos Muñoz et al., for example, observe that many initiatives in CRVS are “reductionist”: they emphasize “technical fixes and tools” over structural reforms.³⁹ A growing number of international and regional agendas and guidance, software, and tools have emerged to support system-level interventions for CRVS, but capacity development frameworks must fit each unique context.

Capacity requirements for CRVS systems are complex and multidimensional. They involve at least the office of the civil registrar and the national statistical office. But efforts to improve CRVS coverage and quality benefit from engaging with a wider range of stakeholders, including, for example, health agencies, the judiciary, and local government units.⁴⁰ Development partners, NGOs, and civil society and faith-based organizations (that is, the wider ecosystem) also have an important role in facilitating CRVS development: they provide resources and expertise and/or expand reach to vulnerable populations.^{41 42} This is especially critical in fragile contexts. The multi-stakeholder element of CRVS emphasizes a need for effective coordination at the systems level in the form of both inter-agency communication (including pro-active collaboration, in some cases)

37 PARIS21. 2020. paris21.org/sites/default/files/inline-files/UNV003_Guidelines%20for%20Capacity%20Development%20WEB_0.pdf

38 The PARIS21 CD4.0 framework identifies 46 unique capabilities corresponding to each of these five dimensions. For a complete listing, see the matrix structure and discussion outlined in the PARIS21 Guidelines for Developing Statistical Capacity, 10–11.

39 Cobos Muñoz, D. et al. 2018. gh.bmj.com/content/3/2/e000673.info

40 Savigny, D. et al. 2017. tandfonline.com/doi/full/10.1080/16549716.2017.1272882

41 Ibid.

42 Brolan, C. E. 2019. doi.org/10.1093/jhuman/huz009

and technical harmonization. This coordination challenge is not unique to CRVS, but it speaks to a more advanced form of management capacity that is often not needed to produce high-quality surveys and censuses — or at least not to the same extent.

Legal frameworks are another key enabler at a systems level for developing CRVS. Legal requirements for CRVS cut across multiple domains: they include statistical legislation to outline institutional mandates for data production, curation, and access, as well as data privacy legislation to guide the adoption of new technologies and regulate data protection and ethical use (see below: Managing risks and opportunities in digital CRVS). Legislation is also an important milestone: it establishes a political commitment to registration and legal identity and clarifies mandates and mechanisms for action within and across key agencies. Politics and power are often neglected, but as outlined in the CD4.0 framework, they are a major factor in the statistical capacity that is needed to design and roll out CRVS systems.

These capacity gaps are not unique to CRVS in fragile contexts, but the challenges they pose may be affected by the drivers of fragility at the national — or even sub-national — level.⁴³ For example, a post-conflict environment with a large displaced or refugee population presents one set of political and administrative factors when it comes to registration and legal identity; a country that is managing recurrent natural disasters and environmental threats due to climate change must deal with different political and administrative factors. As a starting point, operational considerations for CRVS should



Photo: Dominic Chavez / World Bank

combine multiple policy approaches and interventions based on current constraints in the health system, governance, and sociocultural context.^{44 45} This kind of context-specific approach can help to identify culturally sensitive interventions to advance registration while targeting barriers to CRVS coverage across the system.

Developing statistical capacity as a response to fragility

CRVS systems provide a foundation for effective governance. As well as supplying data for evidence-based policy, the bureaucratic processes that underpin effective CRVS systems can help to mitigate fragility and support resilience. Strengthening legal frameworks for CRVS, mechanisms for inter-agency coordination, and protocols for data management and access all demand substantive improvements in state capabilities.⁴⁶ Thus, investments in CRVS systems in fragile contexts are subject to a multiplier effect: besides strengthening flows of data to

43 See, for example, the Iraq case in Tull. 2019. assets.publishing.service.gov.uk/media/5d554e28ed915d08d586a296/636_Civil_Documentation_for_IDPs.pdf

44 Suthar, A. B. et al. 2019. journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002929

45 Toole et al. 2012. un-ilibrary.org/content/journals/15644278/29/1/4

46 Ikubaje, J. G. and Bel-Aube, N. S. 2016. scirp.org/journal/paperinforcitation.aspx?paperid=65504

inform inclusive policies and programming, CRVS practice targets thorny issues in state administration.⁴⁷

In its dedicated engagement strategy for fragile states, PARIS21 identifies five distinct areas where statistical capacity development can help to reduce fragility:

- By building a stable state through creating strong institutions;
- By fostering whole-of-government links through the coordinating role of the National Statistical Office, which works across all public institutions;
- By strengthening governance by introducing evidence to policy-making;
- By helping to address inequality and fostering inclusive growth by providing data on the "invisible" and most vulnerable; and
- By providing data on issues that create fragility, such as disaster risk, and in this way helping to develop coping strategies.⁴⁸

All of these areas are part of developing statistical capacity for CRVS systems. These points reveal the multidimensional nature of CRVS initiatives and how they can strengthen coping capacities and mitigate risks in situations of conflict and fragility.

This dynamic relationship between statistical capacity and institutional capacity in fragile contexts continues to attract substantial academic interest. Most recently, Harsch proposed a new framework to assess fragility using the World Bank SCI as a measure of state capacity in the form of "legibility," or a government's ability to measure and monitor information about its citizens.⁴⁹ Harsch's proposed framework classifies states as "weak" or "collapsed" based on thresholds for key data sources — a population census, an agricultural census, and CRVS. Based on this framework, Harsch identifies 33 fragile states. Notably, most countries that lack all three data sources overlap with those identified as "extremely fragile" in the OECD's States of Fragility 2020 list.⁵⁰ Based on these insights, Harsch suggests that "states fail not because they have too much bureaucracy, but because they have too little."^{51 52} If this hypothesis holds, developing statistical capacity for CRVS represents both a vital intervention to respond to the effects of fragility and an important instrument to support countries in a journey toward stability and resilience.

Returning to birth registration coverage, we can observe a mixed narrative about the relationship between government effectiveness⁵³ and CRVS (Figure 6). In non-fragile contexts, as expected, there is a strong positive correlation between government effectiveness and birth registration. Although some countries outperform

47 Van der Straaten, J. and Dankoff, J. 2014. [researchgate.net/publication/334273335_Civil_registration_investments_Paying_rich_dividends_toward_the_good_governance_agenda](https://www.researchgate.net/publication/334273335_Civil_registration_investments_Paying_rich_dividends_toward_the_good_governance_agenda)

48 PARIS21. 2016. paris21.org/sites/default/files/Fragile%20States%20Strategy-March2016-final.pdf

49 Harsch, M. 2020. epicenter.wcfia.harvard.edu/blog/measuring-state-fragility-new-approach-identifying-and-strengthening-vulnerable

50 Collapsed States 2019: Afghanistan, the Central African Republic, the Democratic Republic of the Congo, Eritrea, Iraq, Libya, Somalia, Syria, and Yemen. South Sudan is expected to join the list in 2020.

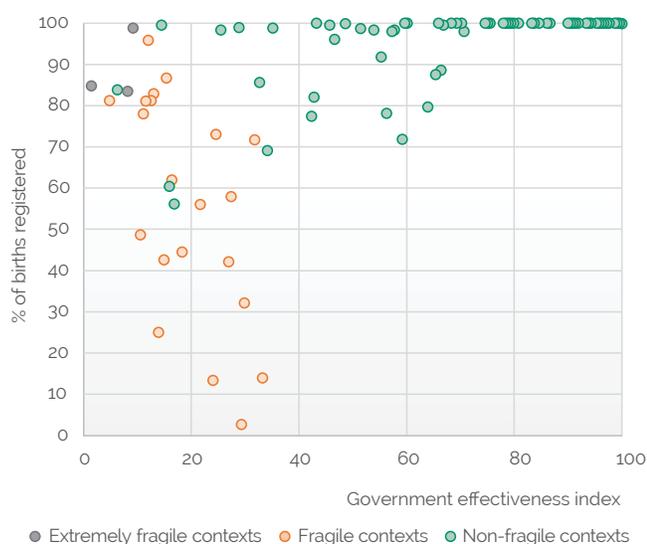
51 Harsch, M. 2020.

52 McDonnell, E. M. 2020.

53 The World Bank Government Effectiveness Indicator captures "perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies." PARIS21. n.d. statisticalcapacitymonitor.org/indicator/152/

in registration with relatively low government effectiveness, countries above a 40 percent effectiveness threshold perform better more consistently, with at least 70 percent coverage. Countries above 70 percent effectiveness achieve universal (or near universal) registration across the board. In fragile contexts, however, the narrative is more complex. All fragile contexts perform under 40 percent on the government effectiveness metric, and the relationship to registration coverage appears inverted — higher registration is often reported in contexts with lower government effectiveness.

Figure 6: Birth registration in fragile and non-fragile contexts, by government effectiveness score.



Sources: World Bank Government Effectiveness Indicator, 2018. PARIS21 Statistical Capacity Monitor; OECD, States of Fragility 2020

Although it is counter-intuitive, this is an important, practical insight: it shows that state capacity is not a prerequisite to progress in registration coverage in fragile situations. Interventions to develop

CRVS systems can yield results even in low-capacity environments. Also, we can hypothesize that developing capacity for CRVS more systematically, beyond piecemeal interventions, can yield positive results in state effectiveness as countries move out of fragility. The dynamics of this relationship — and suitable strategies to employ — need further analysis at the country level. Risks and coping capacities will be different across contexts, calling for differentiated approaches to advance CRVS coverage.

Progress and pitfalls: Systems-level interventions in Africa

Despite a historic emphasis on narrow, technical solutions, recent initiatives in sub-Saharan Africa show promise in adopting systems-driven approaches to developing CRVS. A number of fragile contexts in East and Southern Africa, including Mozambique, South Sudan, Tanzania, and Zambia, have created cross-ministerial working groups and/or specialized agencies to harmonize standards and set up data-sharing platforms among public administration actors and providers of registration services.^{54 55} While multilateral engagement and collaboration is key for successful coordination and innovation of CRVS systems, experts also say that having an anchor ministry/agency serve as secretariat of the national coordination committee is essential to ensuring that the implementation is effective and the approach is sustainable.⁵⁶

Fragile and conflict-affected settings have also benefited from policies and interventions to make registration services more accessible to citizens, including community-based registration.⁵⁷ In Mali, a study found that community health workers doing real-time mortality assessment provided

54 UNICEF. 2020. [unicef.org/esa/media/6571/file/Review%20of%20Civil%20Registration%20and%20Vital%20Statistics%20Innovations%20in%20Eastern%20and%20Southern%20Africa.pdf](https://www.unicef.org/esa/media/6571/file/Review%20of%20Civil%20Registration%20and%20Vital%20Statistics%20Innovations%20in%20Eastern%20and%20Southern%20Africa.pdf)

55 van der Straaten, J. 2015. [researchgate.net/publication/333717787_Scaling_up_Birth_Registration_in_Tanzania_Proposal_to_the_Department_for_Foreign_Affairs_Trade_and_Development_of_Canada](https://www.researchgate.net/publication/333717787_Scaling_up_Birth_Registration_in_Tanzania_Proposal_to_the_Department_for_Foreign_Affairs_Trade_and_Development_of_Canada)

56 Mills, S. et al. 2019. jhp.biomedcentral.com/articles/10.1186/s41043-019-0179-z

57 Suthar, A. B. et al. 2019.



Photo: Dominic Chavez / World Bank

high-quality data on vital events.⁵⁸ Although results vary by context, these solutions provide “a bridge between providers of health, social and community services” and overcome barriers to accessing registration.⁵⁹ These and other community-based and participatory approaches can play an important role in strengthening trust in CRVS systems and rebuilding communities after a crisis.⁶⁰ ⁶¹ Digital tools can be useful in making such interventions possible through the use of mobile registration; this is discussed in the next section.

In addition to addressing concerns about access, systems-level interventions for CRVS have focused on incentives for citizens to engage with civil registration systems. Namibia has a strong system of financial incentives,⁶² while Botswana integrated national ID provision with birth registration; this unlocks access to a wide range of

government services. Other fragile contexts, such as Bangladesh, require birth certificates for school enrolment.⁶³ Generating demand for registration services through incentive schemes has become a key concept in the latest international guidance.⁶⁴ However, some potential pitfalls need to be analyzed. In some cases, financial incentives have led to attempted fraud, and links to services and opportunities can reinforce risks of exclusion.⁶⁵

Digital approaches

Digital approaches are a potential game changer for strengthening CRVS systems globally. They offer ways to get around bureaucratic inefficiency and leapfrog to more effective and inclusive practice. In fragile contexts, where institutional capacity, governance, and issues of access are major barriers to developing CRVS systems, these solutions can be transformative.

The concept of “digital CRVS” includes three elements:

- **Digitization** of CRVS data products, including existing event registries and official documentation;
- **Digitalization** of CRVS business processes, including vital event registration, using ICT solutions; and
- **Digital transformation** of CRVS systems and institutions over time.

58 Silva, R. et al. 2016. doi.org/10.1371/journal.pone.0144662

59 Ibid.

60 Brolan, C. E. and Gouda, H. 2017.

61 Schmidt, J. and Misra, A. 2020. oecd.org/about/civil-society/youth/Shaping-the-Covid-19-Recovery-Ideas-from-OECD-s-Generation-Y-and-Z.pdf

62 African Union. 2019a. au.int/sites/default/files/newsevents/workingdocuments/37474-wd-crvs-v-civil_registration_and_vital_statistics_digitalization_and_innovation.pdf

63 UNICEF. 2018. unicef.org/bangladesh/en/timely-and-accessible-birth-registration

64 Peters, B. G. 2016. publications.iadb.org/en/civil-registration-and-vital-statistics-tool-improve-public-management

65 African Union. 2019a.

These elements can be seen as a sequence, with each one enabling developments for the next.⁶⁶ Most countries are still in the earliest stages of digital CRVS development.

The promise and potential of digital CRVS

Digital civil registration has gradually been replacing paper-based registration in low-income countries. The increased use of digital technologies for contemporary registers makes it easier to aggregate data and results in better data processing and storage. Digitized registration information can be retrieved instantly and remotely using secured networks or the internet through wired or wireless mobile networks under specified access protocols.⁶⁷ Digital solutions for CRVS can therefore streamline both the processes of civil registration and the mechanisms for compiling, disseminating, and using vital statistics.

Under the umbrella of ICT solutions, various channels and devices — including radio, mobile phones, satellite systems, and computer networks and applications — can be used to improve registration and support CRVS digitalization.⁶⁸ Dedicated ICT interventions for civil registration tend to be classified into two approaches:

- eCRVS, which is based on computer software; and

- mCRVS, which are more recent initiatives based on mobile technologies.⁶⁹

The growing interlinking of eCRVS and mCRVS initiatives, as well as server-based rollout, allows national databases to connect with registration offices in districts and sub-districts. This means sub-national offices can register vital events and issue registration certificates (such as paper documents) under a dynamic centralized system. In the same way, health institutions can send records of births or deaths electronically to civil registry offices to support timely registration and harmonize reporting.

New digital technologies for CRVS and identity management have gained popularity in the SDG era: these promise efficient and accessible solutions for low-resource settings. A new wave of technologies to support universal birth registration includes open source software, cloud computing, big data, and analytics to develop more secure and democratized identity management.⁷⁰ The speed with which such tools are developing has opened up new avenues for making civil registration more effective, reaching more people, and creating more seamless links between population registers and identity management systems.⁷¹ For example, more countries are introducing identity cards and systems with biometric markers. The COVID-19

66 PARIS21. 2021.

67 UNICEF. 2020.

68 UNICEF and IDB. 2015. [unicef.org/esa/media/6571/file/Review%20of%20Civil%20Registration%20and%20Vital%20Statistics%20Innovations%20in%20Eastern%20and%20Southern%20Africa.pdf](https://www.unicef.org/esa/media/6571/file/Review%20of%20Civil%20Registration%20and%20Vital%20Statistics%20Innovations%20in%20Eastern%20and%20Southern%20Africa.pdf)

69 WHO. 2013. [who.int/publications/i/item/systematic-review-of-ecrvs-and-mcrvs-interventions-in-low-and-middle-income-countries](https://www.who.int/publications/i/item/systematic-review-of-ecrvs-and-mcrvs-interventions-in-low-and-middle-income-countries)

70 Plan International. 2015. [ohchr.org/Documents/Issues/Children/BirthRegistrationMarginalized/PlanInternationalGeneva_4.pdf](https://www.ohchr.org/Documents/Issues/Children/BirthRegistrationMarginalized/PlanInternationalGeneva_4.pdf)

71 Centre of Excellence for Civil Registration and Vital Statistics Systems. 2019c. [crvssystems.ca/sites/default/files/assets/files/CRVS_Compodium_e_WEB.pdf](https://www.crvssystems.ca/sites/default/files/assets/files/CRVS_Compodium_e_WEB.pdf)

pandemic has further accelerated research on the use of ICT solutions for managing digital identity, including blockchain technology.^{72 73 74}

Historically, individual identity has been primarily analogue, in the form of physical birth and death certificates. While the definition and the legal implication of a digital identity is part of ongoing policy debate and discussion, digital tools for identity management offer unprecedented solutions, particularly for people who are unable to prove their identity and therefore cannot access essential services. The UN Handbook on Civil Registration and Vital Statistics Systems: Management, Operation and Maintenance, as well as other international guidelines, attach a growing importance to the development and implementation of modern identity management systems as a tool for protecting and serving the population.⁷⁵

Some identity systems are closely linked to the civil registration system by design; others may have little or no connection. A database of individual identity numbers can be developed into a population register if it is regularly updated with birth, death, and migration details. If identity numbers are assigned at birth through a more seamless link with civil registration, the transition to synchronized CRVS and identity management can be much smoother.⁷⁶

Managing risks and opportunities in digital CRVS

In addition to streamlining the protocols and processes linked to registration, digital CRVS systems improve the durability of the sensitive information they hold. This offers key benefits to fragile contexts and is a critical factor in situations of conflict and other crises, where preserving paper records becomes a major challenge. Digital registers help to preserve business continuity during a crisis and make rebuilding records and restoring vital statistics more achievable during recovery and reconstruction.⁷⁷ Improving the durability of digital systems also responds to demonstrated needs of vulnerable populations, particularly for internally displaced persons and refugees, who often lose access to critical documentation to establish their legal rights and identity.⁷⁸ Without mechanisms to restore documentation, the effects of the displacement are felt over an even longer time. This affects opportunities for resettlement and repatriation as well as access to basic services, rights, and economic opportunities.^{79 80}

Still, digital CRVS systems are not risk free. They create new challenges that policymakers and stakeholders must carefully address and consider, particularly in terms of data privacy and protection. Rapid adoption of ICT solutions, as well as advancements in joining up CRVS and

72 Sin, E. S. and Naing, T. T. 2020. doi.org/10.1007/978-981-15-5148-2_78

73 Gilani, K. et al. 2020. hal.archives-ouvertes.fr/hal-02650705/document

74 Blockchain connotes a possibility of obtaining an identity that is not dependent on any centralized authority and therefore cannot be controlled or interfered with by any third party without the individual's consent. See, for example, Plan International. 2017. ohchr.org/Documents/Issues/Children/BirthRegistrationMarginalized/PlanInternationalGeneva_3.pdf

75 United Nations. 2017.

unstats.un.org/unsd/demographic-social/Standards-and-Methods/files/Handbooks/crvs/crvs-mgt-E.pdf

76 Ibid.

77 Brolan, C. E. and Gouda, H. 2017.

78 Livingston, A. 2019.

79 Ibid.

80 Tull, K. 2019.

assets.publishing.service.gov.uk/media/5d554e28ed915d08d586a296/636_Civil_Documentation__for_IDPs.pdf

identity management systems, increases risks for protecting personal and confidential data. The design and rollout of these tools require safeguards in the form of policies, laws, and standards for data governance.

When robust regulatory frameworks for data and privacy protection are absent, digital platforms create opportunities for data to be misused and can lead to serious human rights violations.⁸¹ Governments may also end up depending on a single provider to manage their system, which can weaken mechanisms for accountability and effective stewardship of data.⁸² Concerns about data misuse with digital CRVS systems require attention, particularly in fragile contexts. Personal data, including that of children, is increasingly in demand by identity thieves, and digitized data is easier to steal in large quantities.⁸³ Despite these risks, digital advancements in CRVS and ID systems often happen in non-linear and unstructured ways; legal frameworks for data privacy and protection may follow behind digitization initiatives and efforts to join up CRVS with other identity registers.

Improved registration and documentation using digital tools can help states to govern more effectively, but also allow for exploitation as a political instrument of a greater population surveillance. This can enable and consolidate the repressive power of authoritarian regimes.^{84 85 86 87} CRVS, although often seen as neutral, can



Photo: Dominic Chavez / World Bank

become political in fragile contexts: it may be used to exploit social fault lines and target vulnerable populations.⁸⁸ For example, digital identity was used to “hyper-document” the Rohingya in Myanmar.⁸⁹ The issuing of national verification cards was used to restrict and contain movement. In this instance, paradoxically, registration raised fears of erasure of ethnic identity by creating opportunities to continue systemic marginalization and persecution.

Experts also note risks of the gradual rollback of the human right to a nationality when alternative registers and ad hoc biometric ID documents are used.⁹⁰ Biometric technologies offer an attractive option for governments in developing countries, bypassing the need for official birth certificates issued by costly and complex civil registration systems. However, a successful biometric ID

81 UNICEF. 2020.

82 APAI-CRVS. 2019a. This includes the issue of “vendor lock-in,” which refers to a situation where a private entity holds exclusive or competing rights over the system and underlying data.

83 Plan International. 2015.

84 Torpey, J. 2000.

85 Scott, J. 1998.

86 Bennet, C. and Lyon, D. 2008.

87 Brinham, N. 2019.

88 Centre of Excellence for Civil Registration and Vital Statistics Systems. 2020. opendatawatch.com/wp-content/uploads/2020/02/ConVERGE-2020-Conference-Outcome-Report.pdf

89 Brinham, N. 2019.

90 Centre of Excellence for Civil Registration and Vital Statistics Systems. 2020.



Photo: Dominic Chavez / World Bank

system can become pervasive over time, creating digital data trails linked to an individual's unique traceable identity.⁹¹ That means the use of biometric ID creates additional risks to privacy. To mitigate these risks, strong provisions are needed to prevent fraud and manage liability.⁹²

The promise of digitized civil registration cannot be realized without acknowledging the corresponding potential for harm. Unaddressed risks can produce negative outcomes that offset the benefits of digital solutions and could reduce the incentive for registration.⁹³

The digitalization-capacity development nexus

In both fragile and non-fragile contexts, digitized records, mobile solutions, and joined-up systems could improve CRVS coverage and quality

while mitigating complex (and often duplicative) reporting requirements for citizens. However, moving from paper to digital does not displace the capacity development requirements for effective CRVS practice; instead, this shift augments and reallocates these requirements.

Embracing ICT solutions for CRVS and the pace of their evolution is challenging; the process to upgrade, modernize, and maintain digital registration systems can be particularly daunting for low-income countries.⁹⁴ ⁹⁵ In addition to the staff needed to process event registration, digital CRVS systems require trained technicians to maintain data quality and support automation.⁹⁶ The design of these systems requires careful quality assurance that must be done in compliance with international norms and standards. Developing appropriate frameworks for technology and data governance should complement these efforts to align high-level strategic aims with operational-level realities.⁹⁷

Low ICT adoption and inadequate infrastructure may further inhibit digital approaches, despite their potential to increase CRVS coverage in fragile contexts. Over the last 20 years, fragile contexts have gradually improved their economic connectivity through trade, migration, and financial networks.⁹⁸ This has enabled important investments that facilitate new approaches to social service delivery and put digital CRVS systems more in reach.⁹⁹ However, the benefits these systems offer are often not fully accessible

91 World Bank. 2014. openknowledge.worldbank.org/bitstream/handle/10986/20752/912490WP0Digit00Box385330B00PUBLIC0.pdf?sequence=1

92 Ibid.

93 Plan International. 2015.

94 AbouZahr, C. et al. 2015. [sciencedirect.com/science/article/pii/S0140673615601738?via%3Dihub](https://www.sciencedirect.com/science/article/pii/S0140673615601738?via%3Dihub)

95 Inter-American Development Bank and UNICEF. 2015.

96 UNSD. 2017. unstats.un.org/unsd/demographic-social/Standards-and-Methods/files/Handbooks/crvs/crvs-mgt-E.pdf

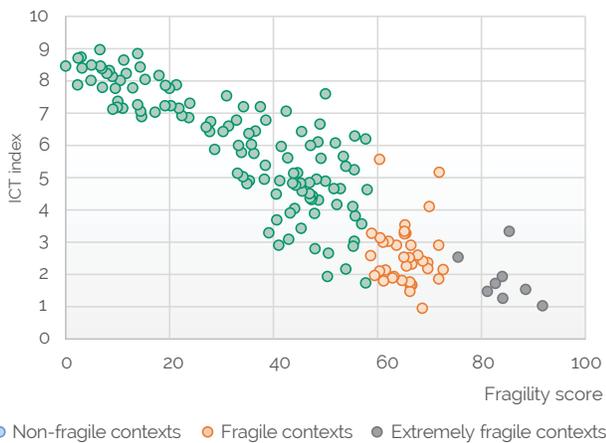
97 Ibid.

98 OECD. 2020.

99 Ibid.

to the countries that are most in need. Off-the-shelf software solutions and tools are limited, even though they can support rapid and replicable digitalization of CRVS.¹⁰⁰ Figure 7 presents how the ICT Development Index¹⁰¹ is lowest for fragile countries and is negatively correlated with fragility overall.

Figure 7: Fragility score and ICT Development Index.



Sources: UN ICT Development Index, World Bank ID4D Global Dataset 2018; OECD, States of Fragility 2020

Digital approaches for CRVS are intrinsically linked to the requirements for developing system-level capacity discussed in the previous section. Strategic planning, mechanisms for coordination, and appropriate legal frameworks, alongside investments in human capital and infrastructure, are key drivers of successful operationalization of digital CRVS systems. World Health Organization guidance affirms this conclusion: achieving high

coverage and quality of CRVS systems is a long process that entails far-reaching administrative reforms and collaboration among multiple partners.¹⁰² In brief, digitalization can accelerate and streamline effective CRVS systems, but it does not alleviate the capacity requirements to deploy them.

In response to these challenges, a number of regional partnerships and initiatives have emerged to simplify and consolidate guidance and foster holistic approaches in CRVS digitalization, management, and governance. For example, the Civil Registration and Vital Statistics Digitization Guidebook created by the Africa Programme for the Accelerated Improvement of CRVS (APAI-CRVS) suggests applying a long-term vision for digital CRVS with key principles for strategic implementation, planning, and strong project governance.¹⁰³ This approach emphasizes fitting solutions to the country context based on a thorough analysis of existing processes, operations, and infrastructure.¹⁰⁴

Finally, it is essential to ensure that systems-level interventions respond to the needs of citizens. The number of integrated digital systems, where civil registration provides input into both vital statistics and identity management, is growing. The most recent UN guidelines on the legislative frameworks for CRVS highlight potential barriers to registration that such systems can create for segments of the population that do not have access to — or do not know how to use — digital

100 UNICEF. 2020.

101 ICT Development Index. 2017. The ICT Development Index was developed by International Telecommunication Union (ITU). [itu.int/en/ITU-D/Statistics/Pages/publications/mis2016.aspx#:~:text=The%20IDI%202016%20captures%20the,in%20the%20IDI%20since%202014](https://www.itu.int/en/ITU-D/Statistics/Pages/publications/mis2016.aspx#:~:text=The%20IDI%202016%20captures%20the,in%20the%20IDI%20since%202014)

102 WHO. 2012.

103 APAI-CRVS. 2016. [crvs-dgb.org/en/#:~:text=The%20Civil%20Registration%20and%20Vital,and%20automated%20processes%20for%20CRVS](https://www.crvs-dgb.org/en/#:~:text=The%20Civil%20Registration%20and%20Vital,and%20automated%20processes%20for%20CRVS)

104 Ibid.

technology.¹⁰⁵ In such cases, these solutions may work against CRVS coverage, reinforcing the risks of exclusion for vulnerable people.

Progress and pitfalls: Digital CRVS interventions in sub-Saharan Africa

In many African countries, including the most fragile, digitalization is still in its early stages, despite its potential to transform CRVS.¹⁰⁶ A recent study on a subset of countries found that electronic systems were more common for national ID registers than for CRVS.¹⁰⁷ Of the 13 African countries surveyed, only 5 had electronic systems for CRVS, while 10 had electronic ID registers.¹⁰⁸

Multiple assessments conducted since 2015 have identified different regional champions in CRVS. According to Nkengasong et al.,¹⁰⁹ only South Africa, Mauritius, and the Seychelles currently have comprehensive CRVS systems that provide information on births and deaths nationwide. A 2020 APAI-CRVS study recognized Namibia for achieving almost universal registration of live births and stillbirths, along with basic identity and health information.¹¹⁰

In November 2019, the APAI-CRVS presented the results of a survey on CRVS progress across 40 African countries at the Fifth Conference of African Ministers Responsible for Civil Registration. The survey revealed that new systems often do not seamlessly connect registry offices to national databases and are not equipped to automate vital statistics. Although 65 percent of countries have begun to capture birth and death records electronically at the local level, interoperability between health and registration systems is still limited and mobile technologies are underutilized.¹¹¹

There are, however, promising developments in both fragile and extremely fragile contexts.

- Despite limitations in the current legal framework for CRVS, South Sudan piloted digital capture of birth notifications in select health facilities.¹¹² Similarly, Mozambique, Tanzania, and Uganda have used mobile networks to capture registration data in remote areas.¹¹³

105 UNSD. 2019. unstats.un.org/unsd/demographic-social/Standards-and-Methods/files/Handbooks/crvs/CRVS_GOLF_Final_Draft-E.pdf

106 To highlight different practices across sub-Saharan Africa, a number of examples from non-fragile contexts are presented alongside fragile countries.

107 Centre of Excellence for Civil Registration and Vital Statistics Systems. 2019b. crvssystem.ca/sites/default/files/assets/files/CRVS%20Brief%202%20EN.pdf

108 Ibid.

109 Nkengasong, J. et al. 2020. [thelancet.com/journals/langlo/article/PIIS2214-109X\(19\)30397-3/fulltext#section-7c530872-6235-4433-899c-b3f276970189](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(19)30397-3/fulltext#section-7c530872-6235-4433-899c-b3f276970189)

110 APAI-CRVS. 2020. apai-crvs.org/sites/default/files/public/Technical%20brief%20no.2.pdf#overlay-context=node/246

111 APAI-CRVS. 2019a.

112 African Union. 2019a.

113 Ibid.

- Mozambique and Tanzania achieved significant progress in bringing all registration records into a central database architecture.¹¹⁴ Under these frameworks, decentralized registration points capture data in digital formats and send or receive data from the centralized register.¹¹⁵
- Mozambique’s strides to improve the civil registration system were enabled by COMSA, a sample-based registration system with community surveillance assistants reporting birth, death, and cause-of-death data from a representative sample of communities.¹¹⁶ These techniques may be a key solution in fragile contexts for piloting new ICT solutions where capacity for national rollout is limited or where access to the full population is a critical barrier.

These examples highlight the potential of incremental approaches to digitalization. Targeting both technical and non-technical aspects of CRVS systems is key to implementation of digital solutions in fragile contexts.

CONCLUSION

Current trends in CRVS coverage point to systemic capacity gaps in fragile and non-fragile contexts alike. However, adopting a systems approach in situations of conflict and fragility comes with unique challenges. Low-functioning systems for governance and administration contribute to fragility by weakening coping capacities. Efforts to bridge these gaps through developing statistical capacity and digitalizing are not straightforward.



Photo: Dominic Chavez / World Bank

Strengthening legal frameworks for CRVS might entail larger questions around political settlement and human rights, particularly in conflict-affected and post-conflict environments. Coordination among agencies may be a secondary consideration when agencies are struggling to perform core functions. Moreover, CRVS coverage ultimately depends on citizens’ willingness to engage with government and provide personal information. These processes demand trust, which may be a challenge unto itself in cases where the social contract between citizen and state has been violated or is weakened under fragile regimes.

Despite these challenges, adopting a whole-of-system approach to CRVS development may yield positive developments in state capabilities to support exits from fragility. These interventions must be sensitive to the context, which makes designing and implementing coherent CRVS strategies in fragile contexts more complex. Digital approaches offer new, practical solutions to enable and act as a catalyst for these efforts, but they do not substitute for developing capacity at the systems level.

¹¹⁴ UNICEF. 2020.

¹¹⁵ Ibid.

¹¹⁶ Nkengasong, J. et al. 2020.

Rapid advancements in the use of ICT in civil registration call for a renewed focus on foundational issues in data governance and stewardship. The challenge is to balance the benefits of linking CRVS and identity management systems with the need to protect individual privacy and security, particularly for minorities and other vulnerable populations. Fragmented regional and country approaches with scaled-up multi-stakeholder partnerships often ignore two key signposts:

- A strong international legal mandate in the form of a single binding human rights law instrument to mobilize global action, as well as country and donor investment;¹¹⁷ and
- The consistent and deliberate inclusion of the voices of human rights practitioners calling for a common understanding of CRVS as an “essential public good.”¹¹⁸

Moving forward, a wide range of stakeholders and practitioners across the humanitarian-development-peace nexus¹¹⁹ should be engaged to develop and advance CRVS systems in ways that respond to the underlying drivers of fragility and the needs of the most vulnerable.

RECOMMENDATIONS

1. **Adopt a “systems lens” in the design of CRVS interventions — whether digital or analogue.** Careful consideration of resource, management, and political aspects of CRVS capacity requirements should guide shifts from paper to digital. Analyzing capacity gaps through “process mapping”¹²⁰ and other assessments to identify systemic challenges, bottlenecks, and duplications will help to inform strategic planning and effective partnerships.
2. **Use digital approaches to accelerate progress.** Advances in ICT provide an attractive opportunity for fragile states to leapfrog administrative and operational barriers in civil registration and accelerate state-building efforts. However, these solutions must be context sensitive. When designing CRVS legislation and administrative processes, decision-makers should be aware that the use of advanced technology in itself might present a barrier to registration when certain subpopulations lack skills or access to use that technology.
3. **Establish frameworks for multi-stakeholder collaboration and engagement.** Building understanding of registration processes at all levels of the civil registry and by all involved in implementing it is an important first step to mitigate complexity.¹²¹ Clear mandates and strong leadership of one or more key participating institutions, as well as consensus and commitment to a common vision among a wider set of stakeholders, is

117 Brolan, C. E. and Gouda, H. 2017.

118 Brolan, C. E. 2019.

119 For a full discussion on the humanitarian-development-peace nexus guidance and commitments, see the OECD Recommendation on the Humanitarian-Development-Peace Nexus. OECD Development Assistance Committee. 2019. legalinstruments.oecd.org/en/instruments/OECD-LEGAL-5019

120 Cobos Muñoz, D. et al. 2020. gh.bmj.com/content/3/2/e000673.info

121 UNICEF and IDB. 2015.

necessary to pursue the long-term objectives in implementing digital CRVS systems. In fragile contexts especially, inclusive and participatory approaches must be adopted. This means seeking out perspectives and engagement from humanitarian, development, and peace actors to support buy-in.¹²²

4. Put data stewardship and governance at the heart of digital CRVS initiatives. In fragile contexts especially, the stakes for data protection and misuse are too high to risk. The need for safeguards increases the complexity and potential politicization of CRVS interventions. Targeting institutional set-up and good governance at the outset provides a platform to address underlying risks and coping capacities that contribute to fragility. Stakeholders should aim to pursue incremental reforms under a rights-based approach that weighs potential gains in coverage and efficiency against concerns around security and privacy.

5. Pursue a systems-driven strategic plan to guide the creation of a sustainable CRVS data ecosystem. Developing a statistical plan, such as a National Strategy for the Development of Statistics, with a clear CRVS agenda may be a useful step to introduce context-aware approaches to statistical capacity development and target resources effectively.¹²³ In post-conflict and post-crisis contexts especially, such efforts should be incremental and set up in appropriate time horizons that align with strategic plans for recovery and resilience.¹²⁴ Aligning the vision to the myriad actors in the CRVS system will require multi-sectoral and multi-level consultations.

6. Engage in developing legal frameworks for CRVS as you design applied interventions and solutions. Interventions in CRVS provide an entry point to address current gaps in legislation governing statistics, data protection, and human rights. Linking these efforts to establishing inter-agency committees and other mechanisms for stakeholder engagement (Recommendation 3), as well as strategic plans (Recommendation 5), can help in identifying practical steps forward.

7. Renew a commitment to finance CRVS in fragile contexts. Current financing for CRVS channelled through broader support for statistics has targeted fragile contexts in recent years. Donors must protect, diversify, and expand these resources to achieve the ambitions of the 2030 Agenda and advance CRVS coverage in situations of fragility.

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¹²² OECD Development Assistance Committee. 2019. legalinstruments.oecd.org/en/instruments/OECD-LEGAL-5019#dates

¹²³ PARIS21. 2017.

¹²⁴ PARIS21. 2016.

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Where There Is No CRVS: Counting and Registering Deaths in Conflict, Emergencies, and Fragile Settings

by Carla AbouZahr, Laura Monzón Llamas, Carmen Sant Fruchtmán, and Daniel Cobos Muñoz

INTRODUCTION

Recent years have been characterized by significant movements of people fleeing from war, civil conflict, disasters, and emergencies to find a better life elsewhere. In this paper, we examine the role of civil registration and vital statistics (CRVS) systems during crises associated with conflict, migration, disasters, and health emergencies. We focus in particular on counting and registering deaths and determining causes of death in such circumstances. This is essential for public health and for planning and delivering healthcare interventions to affected people. It is also critically important for individuals and families because civil registration provides legal documentation of the occurrence of vital events and of identity, civil status, and family relationships.

Often neglected, but of particular importance to surviving family members, is the legal documentation of the death of a family member. This provides evidence of changed civil status and eligibility of a surviving spouse to remarry, to claim nationality by descent, and to access possessions, benefits, entitlements, and inheritance. We identify key gaps in the international response to the recording and registration of deaths and discuss how capturing information on deaths and providing surviving family members with information and certificates of death can help support institutional and

societal resilience, contribute to the construction of post-crisis recovery, and pave the way for stability in the post-disaster and post-conflict future. The paper covers the following topics:

- The importance of tracking mortality during conflict, crises, and emergencies;
- The impact of crises on CRVS systems, with particular reference to death registration; and
- Approaches to rebuilding CRVS systems so every death is counted and registered.

This paper aims to

- highlight the importance of counting and registering deaths that occur during emergencies and crises;
- examine what is known about the impact of humanitarian crises, conflicts, disasters, and emergencies on country civil registration systems, with a focus on counting and registering deaths;
- propose strategies for improving links between humanitarian action and civil registration and vital statistics during crises and emergencies and among refugee and migrant populations; and
- identify strategies to ensure that deaths among vulnerable populations and in fragile settings are appropriately recorded, counted, and registered.

KEY MESSAGES

- Around the world, people are leaving their homes. Many are forced to move to escape war, conflict, persecution, and violence; others are searching for a better life for themselves and their families. All face multiple risks, including ill health, disability, and death.
- Deaths that occur during these population displacements are rarely documented. When the dead are not registered, surviving family members have no evidence of the existence of their loved ones and are unable to realize their own rights to identity, civil status, or family relationships. Lacking evidence of identity, they face multiple challenges in accessing essential services and claiming their human rights.
- Every individual matters. Every death should be counted in recognition of the inherent value of every life. Civil registration systems must be flexible and resilient enough that the registration of vital events can continue despite conflicts and crises. Ensuring that each death is counted and registered and each deceased person is buried with dignity and humanity is essential to help heal societies that are damaged and disrupted during crises.
- In the aftermath of conflict and social disruption, civil registration and vital statistics systems can contribute to rebuilding trust and repairing social bonds. The right to have a death registered is connected other human rights, such as the right to inherit and the right to social security. The registration of a death is as much a human right as the registration of a live birth.

POPULATIONS ON THE MOVE

Human populations have long been on the move in search of safety, peace, and prosperity. The movement of persons away from their place of usual residence, either across an international border or within a State, is called migration.¹ According to the World Migration Report 2020,² there were an estimated 272 million international migrants in 2019,³ or 3.5 percent of the global population. Migrants may move away from their homes for many reasons, including to work, study, or to be united with family members, but in most cases they migrate under conditions covered by laws, regulations, or international agreements.

By contrast, some migrants seeking work or trying to reunite with their family do not have access to legal channels. Instead, they can only access irregular migration channels.⁴ These are defined as movements that take place outside the laws, regulations, or international agreements that govern the entry into or exit from the State of origin, transit, or destination. Some irregular migrants turn to people smugglers to gain access to the countries of their choice.⁵ There are an estimated 3 million irregular entries into the United States each year, most of which involve smuggling. Of the more than 181,000 migrants who crossed the Mediterranean Sea from North Africa to Italy in 2016, the majority are believed to have used smuggling services. The smuggling business could be worth as much as US\$10 billion or more per year.

1 International Organization for Migration. 2020. iom.int/key-migration-terms#Migration

2 International Organization for Migration. 2019a. publications.iom.int/books/world-migration-report-2020

3 Migration Data Portal. 2019. migrationdataportal.org/themes/international-migration-flows

4 International Organization for Migration. 2020.

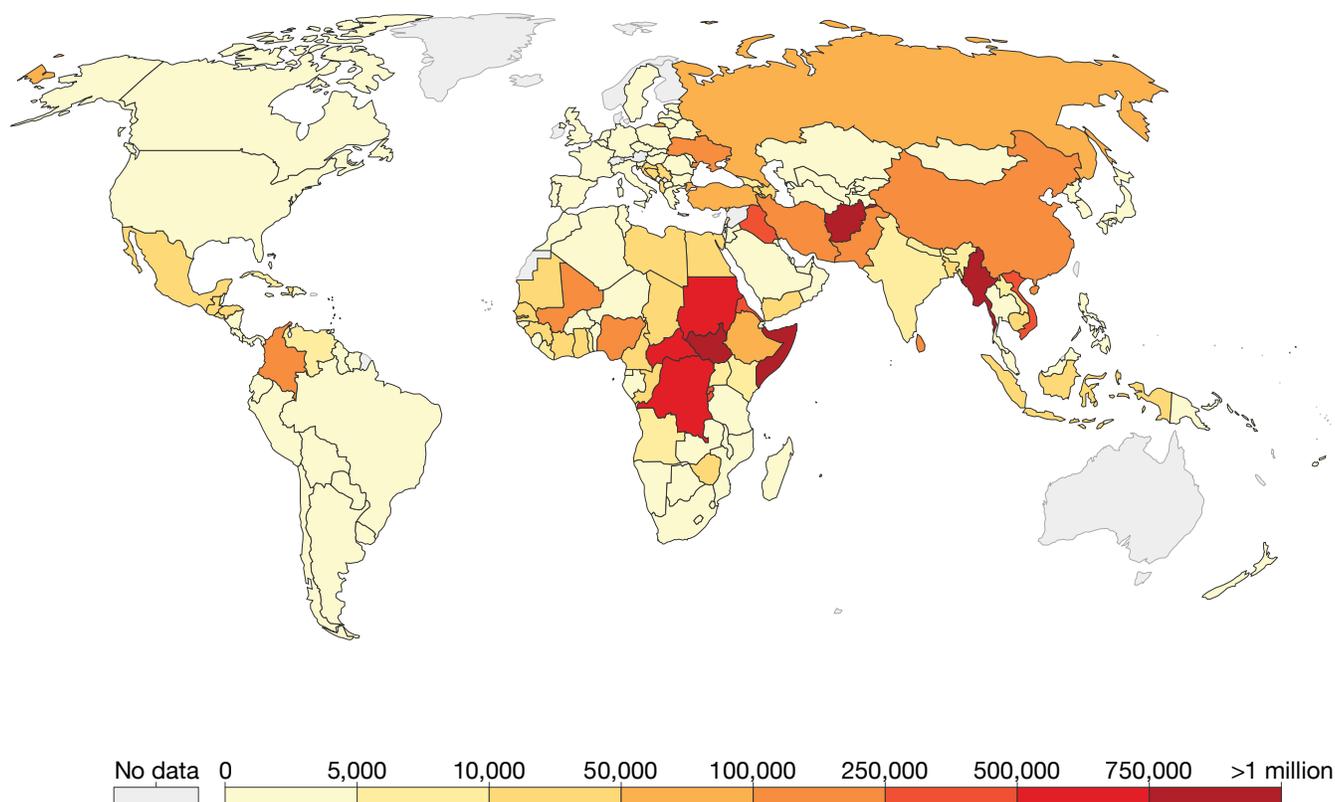
5 United Nations. 2000. unodc.org/documents/southeastasiaandpacific/2011/04/som-indonesia/convention_smug_eng.pdf

While it is generally individuals or small groups that decide to migrate in such circumstances, irregular migratory flows can swell to large numbers. The thousands of migrants who gather close to international borders – such as the US-Mexico border or the borders of countries in the European Union – are evidence of this.

In addition to regular and irregular migrants, millions of people are forced to leave their homes and countries for compelling and sometimes tragic reasons, such as conflict, persecution, and disaster. In recent years, war and civil conflict have driven large movements of refugees who

seek international protection or asylum. The United Nations High Commissioner for Refugees (UNHCR) has estimated that globally, at the end of 2019, some 79.5 million people had been forced to flee their homes, of which some 26 million were under the age of 18.⁶ This is 1 in every 100 of the world's people. Figure 1 shows the refugee population by country or territory of origin in 2017.⁷ Very large numbers of refugees have come from countries affected by conflict or civil strife, including Afghanistan, Central African Republic, Democratic Republic of Congo, Eritrea, Myanmar, Somalia, South Sudan, and Sudan.

Figure 1: Refugee population by country or territory of origin, 2017.⁸



Source: World Bank

6 The UN Refugee Agency (UNHCR). 2019a. [unhcr.org/figures-at-a-glance.html](https://www.unhcr.org/figures-at-a-glance.html)

7 Our World in Data. 2017a. ourworldindata.org/grapher/refugee-population-by-country-or-territory-of-origin

8 Ibid.



Photo: Mohamed Azakir / World Bank

Unlike refugees, internally displaced people (IDPs) have not crossed a border to find safety; they are fleeing within their own countries. Globally, according to the Internal Displacement Monitoring Centre, by the end of 2019 some 45.7 million people in 61 countries were internally displaced due to armed conflict, generalized violence, or human rights violations.⁹

While refugees make up a fairly small percentage of all migrants, they are often the ones who need assistance and support the most. Displaced people include ethnic and religious minorities who are excluded from national administrative systems such as civil registration. Also, they tend to move to areas where it is difficult for aid groups to deliver humanitarian assistance. The volume of population displacement can be overwhelming. For example, the conflict in Syria, which had a total population of around 21 million before the civil war started in 2011, has resulted in over

6 million internally displaced people¹⁰ and over 5.5 million refugees,¹¹ totalling almost half of the pre-conflict population.

In addition to refugees and IDPs, millions more people are stateless: they have been denied nationality, in many cases because their births were never registered and they cannot provide evidence of identity, place of birth, or parentage. This often means they cannot access basic rights such as education, health care, employment, and freedom of movement. The impacts of this deprivation rebound across the generations, negatively affecting the rights of children to basic services, including education. Population groups at higher risk of statelessness include nomadic and border populations, refugees, IDPs, and irregular migrants. Abandoned, orphaned, unaccompanied, or separated children are especially vulnerable; they often lack any documents to establish their identity. Migrants whose situation is irregular may be unwilling to approach the authorities to register their children for fear of being identified or deported. Figure 2 provides a summary of basic statistics on refugees and displaced persons.¹²

While much of the world's media attention focuses on migrant and refugee flows to high-income areas such as Europe and North America, in practice, countries that offer shelter and asylum to large numbers of refugees are more often neighbouring low- and lower middle-income countries. These countries – for example, Bangladesh, Ethiopia, India, Pakistan, Tanzania, and Uganda (Figure 3) – are themselves facing multiple social, economic, and political challenges.

9 Internal Displacement Monitoring Centre (IDMC). 2020. [internal-displacement.org/sites/default/files/publications/documents/2020-IDMC-GRID.pdf](https://www.internal-displacement.org/sites/default/files/publications/documents/2020-IDMC-GRID.pdf)

10 The UN Refugee Agency (UNHCR). 2020. [unhcr.org/sy/internally-displaced-people](https://www.unhcr.org/sy/internally-displaced-people)

11 Operational Data Portal. 2020a. data2.unhcr.org/en/situations/syria

12 International Organization for Migration. 2019a.

Figure 2: Basic facts about population movements.



The global refugee population was **25.9 million** in 2018.

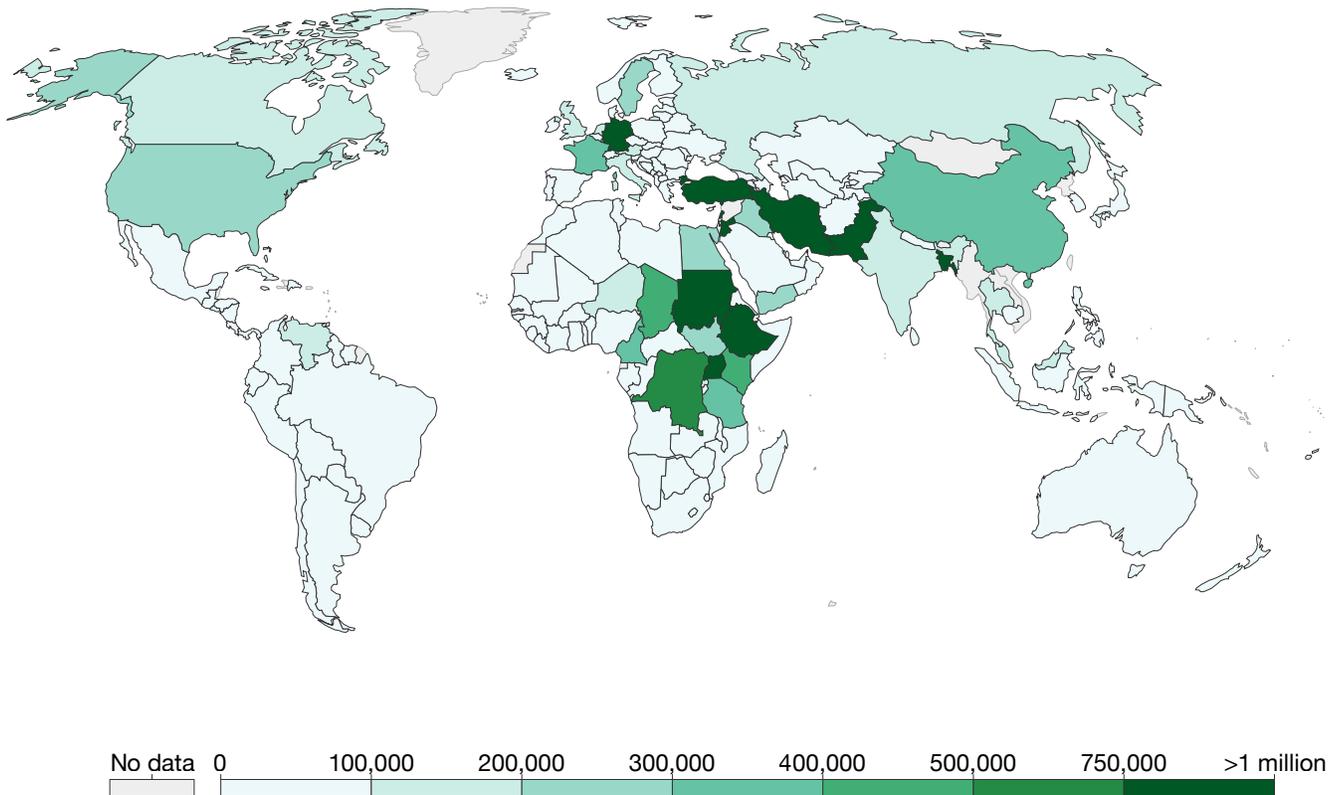
- **20.4 million** refugees were under the mandate of the United Nations High Commissioner for Refugees.
- **5.5 million** were refugees under the mandate of the United Nations Relief and Works Agency for Palestine Refugees in the Near East.
- **52 percent** of the global refugee population was under 18 years of age.

The number of internally displaced persons due to violence and conflict reached **45.7 million** in **61 countries** by the end of 2019.

- The Syrian Arab Republic had the highest number of people displaced (**6.5 million**), followed by Colombia (**5.5 million**) and the Democratic Republic of the Congo (**5.5 million**).
- The number of stateless persons globally in 2018 was **3.9 million**.
- Bangladesh had the largest number of stateless persons (**around 906,000**). It was followed by Côte d'Ivoire (**692,000**) and Myanmar (**620,000**).

Displacement remained a major feature in some regions.

- The Syrian Arab Republic and Turkey were the origin and host of the largest number of refugees globally: **6.7 million** and **3.7 million**, respectively.
- Canada became the largest refugee resettlement country, resettling more refugees than the United States in 2018.
- The Philippines had the largest number of new disaster displacements in 2018 (**3.8 million**).
- Around **4 million** Venezuelans had left their country by mid-2019. The Bolivarian Republic of Venezuela was the largest source country of asylum seekers in 2018 (**over 340,000**).

Figure 3: Refugee population by country or territory of asylum, 2017.¹³

Source: World Bank

Some refugees flee from countries with civil registration and vital statistics (CRVS) systems in place to countries that also have such systems in place, such as from Syria to Germany, Jordan, or Turkey; or from Venezuela to Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Peru, or Panama. But in many cases, people flee from and to countries that do not have well-functioning administrative and statistical systems, such as from Somalia to Kenya or from Myanmar to Bangladesh. This worsens the problem of already stretched resources in receiving countries that have limited administrative, civil registration, and statistical capacities.

Whatever causes them to leave their homes, refugees, IDPs, irregular migrants, and stateless persons share similar challenges in being able to provide evidence of identity, civil status, and parentage. People who flee their homes in situations of threat, conflict, and fear are under duress and in a hurry; often they carry only the most basic necessities. Many will have no documentary evidence of birth, citizenship, marital status, or family relationships because the CRVS system in their country of origin didn't work well or because documentation was lost or destroyed when the people were displaced. Also, the central civil registration archives of vital events

13 Our World in Data. 2017b. ourworldindata.org/search?q=refugees+by+country+of++refugee

are often damaged or not accessible during crises. This means people cannot get copies of documents when they make a claim for asylum. Births and deaths that occur during displacement are unlikely to be officially registered, either in the country of origin or in the host country.¹⁴ Host countries are often reluctant to provide registration documentation to non-nationals due to fears that birth registration will automatically confer nationality, even though these fears are unfounded.¹⁵

Within displaced populations, armed groups – both State and non-State – are often active. High levels of deaths and injuries result from internal rivalries, particularly among young men. Children who are unaccompanied and who lack valid documentation on their age and parentage are exposed to trafficking and exploitation. Women, especially if they are widowed or unaccompanied by male relatives, lack legal protection, and their low levels of empowerment make them highly vulnerable to sexual violence.^{16 17 18} When people die in these circumstances, their deaths are rarely officially counted or legally registered, and little is known about the causes of their deaths. They pass out of the world leaving little trace of their existence, ignored and uncounted.

MISSING, DISAPPEARED, OR DEAD?

When the dead cannot be properly counted, they may be classified as “disappeared” or “missing.”¹⁹ According to the International Commission on Missing Persons (ICMP), which aims to keep a record of every disappearance, some 10,000 people are currently missing in Libya, and 250,000 are missing in Iraq.²⁰ Large numbers of missing persons are reported along dangerous migration routes in Central America, South Asia, and the Mediterranean.²¹ Across the African continent, the International Committee of the Red Cross has recorded 44,000 people as declared missing by family members. Shockingly, almost half of these people were children at the time of their disappearance. Governments receiving irregular migrants are often reluctant to make the effort to recover and identify these missing persons, leaving individuals and non-governmental organizations (NGOs) to report and investigate their deaths. Fortress Europe,²² an observatory for the victims of migration along European borders, reported more than 19,144 deaths between 1988 and 2016.²³

What has happened to these missing people? Many may indeed be dead; others may have been victims of human trafficking and exploitation.

14 APAI-CRVS. n.d. Civil Registration in Conflict and Emergency Situations. au.int/sites/default/files/newsevents/workingdocuments/33070-wd-civil_registration_in_conflict_and_emergency_situations_en.pdf

15 The UN Refugee Agency (UNHCR). 2017. unhcr.org/ke/wp-content/uploads/sites/2/2017/11/Good-Practices-Paper-on-Ensuring-Birth-Registration-for-the-Prevention-of-Statelessness.pdf

16 De Schrijver, L. et al. 2018. doi.org/10.3390/ijerph15091979

17 Qayoom, F. 2014. doi.org/10.5897/IJSA2013.0512

18 De Schrijver, L. et al. 2018.

19 International Commission on Missing Persons (ICMP). 2020a. icmp.int/press-releases/icmp-dg-on-international-day-of-the-disappeared-end-the-double-standard/

20 Ibid.

21 Ibid.

22 Fortress Europe. 2016. fortresseurope.blogspot.com

23 Ibid.

Some may have been forcibly disappeared,²⁴ killed without being part of any legal process. In Syria, in addition to the estimated 400,000 deaths said to have occurred during the conflict, another 100,000 people were forcibly disappeared between 2011 and 2018.²⁵ The report of the Special Rapporteur of the Human Rights Council, *Unlawful Death of Refugees and Migrants*, focuses on the mass casualties of refugees and migrants during their flight.²⁶ It addresses killings by both State and non-State actors and denounces a quasi-generalized regime of impunity, worsened by an absence of accurate data on the dead and missing.²⁷ The report presents evidence of multiple failures on the part of States to respect and protect refugees' and migrants' right to life. These include unlawful killings, such as through the excessive use of force and as a result of deterrence policies and practices that increase the risk of death.

The International Commission on Missing Persons (ICMP) provides technical assistance to governments in locating, recovering, and identifying missing persons.²⁸ In Libya, for example, the ICMP has helped facilitate cooperation between civil society and local government and has developed an institutional and legal framework to account for missing persons. This is not only a matter of helping individual families trace their loved ones, important as that is. It is also about rebuilding strong institutions that protect the rights of citizens and thus strengthening the legitimacy of the State. Such legitimacy is often lacking in conflict-affected and post-conflict societies.

Missing children are perhaps the most tragic victims of these population displacements. Many may never be reunited with their families. Experience following the Second World War has shown that intensive efforts needed to reunite families, or at least to provide surviving children with information about their parentage and place of origin, yielded important returns in terms of individual, familial, community, and societal healing.²⁹

In this paper, we focus on the importance of documenting mortality during crises and among migrants, refugees, and displaced persons. We go on to discuss how CRVS systems can adapt to meet people's core rights related to mortality during crises:

- The right to be counted;
- The right to be registered; and
- The right to a burial.

THE RIGHT TO BE COUNTED

On 3 October 2013, an estimated 368 migrants died when two boats sank near the Italian island of Lampedusa. This led the International Office for Migration (IOM) to start collecting and compiling information on migrants who perish or go missing on migratory routes worldwide. Through the Missing Migrants Project,³⁰ information on migrant fatalities is collected daily and made available on the Project's online database, which is managed by IOM's Global Migration Data Analysis Centre.³¹ The Project also analyzes the data and issues

24 United Nations. 2010. treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-16&chapter=4

25 Syrian Network for Human Rights (SNHR). 2018. sn4hr.org/wp-content/pdf/english/A_tunnel_without_end_en.pdf

26 United Nations. 2017. doi.org/10.1093/ijrl/eey002

27 Ibid.

28 International Commission on Missing Persons. 2020b. icmp.int/what-we-do/

29 Zahra, T. 2009. doi.org/10.1086/593155

30 Missing Migrants. 2020b. missingmigrants.iom.int

31 Migration Data Portal. 2020. migrationdataportal.org/themes/migrant-deaths-and-disappearances#data-strengths-amp-limitations

related to deaths during migration in briefings and in its Fatal Journeys reports.³² Data sources include official records of coast guards and medical examiners, media stories, reports from NGOs and United Nations agencies, and interviews with migrants (see Annex A).

Since it launched in 2014, the Missing Migrants Project has recorded the deaths and disappearances of more than 33,400 women, men, and children – most of them in the Mediterranean Sea.³³ Several other regions of the world have seen thousands of deaths during migration since 2014:

- More than 7,400 deaths have been recorded across the African continent; many of them occurred on transit routes across the Sahara Desert.
- The deaths of more than 3,000 people have been documented during migration in Asia in the last five years, often linked to the exodus of the Rohingya from Myanmar.
- In the Americas, more than 3,600 people have been reported dead or missing during migration. Sixty percent of these deaths were documented on the border between Mexico and the United States.

Documenting the deaths and disappearances of people during migration journeys presents many challenges.³⁴ All existing counts of migrant fatalities have gaps³⁵ because most such deaths happen in the context of irregular migration. This means they occur in areas that are physically remote or outside of well-monitored routes. As a



Photo: Mohamed Azakir / World Bank

result, the physical remains of the dead are not found, and deaths or disappearances may not be reported to the authorities in a timely manner, if at all. On routes that involve transit over water, such as the Central Mediterranean route, people are even more likely to die without a trace. The Missing Migrants Project attempts to document “invisible shipwrecks,” where there is evidence of a departure but no evidence of rescue or interception, implying that the passengers were lost at sea. However, it is highly likely that not all cases are accounted for in IOM’s records. These challenges are complicated by the fact that few official sources collect and publish data on the number of people who died during irregular migration journeys in their territory. In many cases, those who died on migratory journeys are never identified,³⁶ so their remains are even less likely to be included in counts of migrant fatalities. For these reasons, the data available on fatalities during migration are best understood as minimum estimates.

32 International Organization for Migration. 2019b.

publications.iom.int/books/fatal-journeys-volume-4-missing-migrant-children

33 Migration Data Portal. 2020.

34 International Organization for Migration. 2017.

reliefweb.int/sites/reliefweb.int/files/resources/fatal_journeys_volume_3_part_1.pdf

35 Missing Migrants. Methodology. 2020. missingmigrants.iom.int/methodology

36 International Organization for Migration. 2014.

iom.int/files/live/sites/iom/files/pbn/docs/Fatal-Journeys-Tracking-Lives-Lost-during-Migration-2014.pdf

Counting deaths during conflicts and humanitarian crises comes with similar difficulties. As Fischhoff and Atran observe, "Counting casualties is part of any conflict. The parties must do it both to monitor the conflict's progress and to give it meaning. Without accurate counts, the situation is obscured and the fallen are dishonored. If these failures appear deliberate, then they may aggravate the conflict, by adding insult to injury."³⁷

The United States Government Accountability Office, in its review of estimated death counts during the conflict in Darfur, noted a number of challenges related to collecting data in the field and extrapolating from limited data. Difficulties in collecting sound, consistent survey data – including lack of access to particular geographical regions, the conditions under which the surveys are conducted, and limited resources and training for field staff conducting surveys – affect the quality of the data collected and result in data gaps. In its assessment of mortality data in Darfur, the Office noted that because of such limitations and the unavailability of data from other sources, "the death estimates that we reviewed rely on potentially risky assumptions and limited contextual information."³⁸

The United Nations (UN) system has been criticized for not doing enough to measure mortality in crisis settings, such as Angola, Central African Republic, Chechnya, and Zimbabwe.³⁹ NGOs, human rights organizations, and academics have partly filled the data void. Humanitarian agencies make major efforts to track mortality to identify emerging health problems and determine program needs. However, collecting data in such settings is an operational challenge and often

faces political barriers. Greater precision and more complete death reporting are needed to be able to use the information to target programs to the most vulnerable people.⁴⁰ At the same time, families also need documented evidence of deaths of family members.

THE RIGHT TO BE REGISTERED

Counting the dead is important from a statistical perspective, but counting alone is not enough. Every dead or missing person, no matter what their migration or refugee status, leaves behind a family. Often these families have little support and face psychological, legal, and economic challenges for years after their loved ones disappear or die. The ability to formally register a death, to bury the body if it is found, and to know the fate of a family member is crucial to enable survivors to grieve and find some kind of closure. But the deaths of displaced persons and irregular migrants are rarely registered, except within the European Union, where a death must by law be registered following an investigation.

The registration of a death has important legal implications for family members of the deceased. Although neither the Universal Declaration of Human Rights nor the two International Covenants on Human Rights mentions specifically the right to have a death registered; this right is connected with other human rights, such as the right to inherit and the right to social security. Death registration in an official register by a competent authority is as much a human right as the registration of a live birth.⁴¹

The right to inherit depends on official proof that the person who held the property has indeed

37 Fischhoff, B. et al. 2007. cmu.edu/epp/people/faculty/research/Fischhoff-Counting-Casualties-JRU.pdf

38 U.S. Government Accountability Office. 2006. gao.gov/cgi-bin/getrpt?GAO-07-24

39 Checchi, F. and Roberts, L. 2008. journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.0050146

40 Spiegel, P. B. et al. 2002. doi.org/10.1111/1467-7717.00169

41 Powell, N. P. 1980. cdc.gov/nchs/data/isp/007_human_rights_and_registration_of_vital_events.pdf

died. The registration of a death also provides the proof, where needed, to

- enable surviving children to show evidence that they are orphans and to claim parental filiation with the deceased person (if their own births have been registered);
- protect the surviving spouse's interests with regard to assets, death benefits, the right to remarry, and so on;
- claim protection when the head of a household dies without providing for the continued wellbeing of the family, such as allowances or insurance from the State or other authority;
- establish beneficiary status in respect of pensions; and
- establish the surviving spouse's right to custody of the children who are the offspring of a marriage – documentary evidence that could be essential for family members seeking to return to their country of origin when the conflict ends (Figure 4).

THE RIGHT TO A BURIAL

Burial and other death rites date back thousands of years. These core elements of human society are disrupted by war, conflict, forced displacement, and undocumented migration. When people are vulnerable to exploitation, social cohesion collapses and the rule of law is routinely flouted. Many refugees, displaced persons, and undocumented migrants face risks of exploitation and violence during their journeys, and significant numbers of them die.

People who die in such circumstances are not only uncouned and unregistered, they also



Photo: Martine Perret / UN

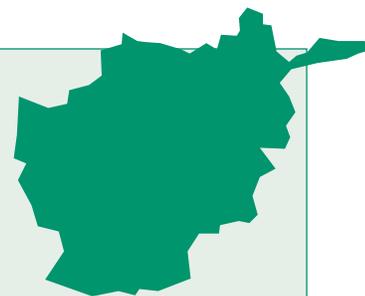
often remain unidentified and unburied.⁴² This is especially true with irregular migration of individuals and small groups, where humanitarian and relief agencies are rarely involved. Much of the information that is available on mortality during unregulated migration is based on media reports, personal histories of migrants, and information from border patrols, coast guards, fishermen, and shipping logs. Bringing together these varied information sources is complicated. Information on causes of death in these situations tends to be based on assumptions.

When dead migrants are found, it is rare for anyone to try to contact the families of the deceased. Notable exceptions include the case of the deaths of 39 illegal Vietnamese migrants to the U.K. who died of suffocation in a truck during the journey.⁴³ Because many of the migrants had mobile phones and contacted their families before they died, it was possible to identify the dead and inform their family members. Still, discussions about who would pay for the corpses to be sent home for burial continued for several months; in several cases, this has not been resolved.

42 Migration Data Portal. 2020.

43 Wikipedia. 2019. en.wikipedia.org/wiki/Essexlorry_deaths#References

Figure 4: The impact of the conflict in Syria on access to civil registration.



The outbreak of the Syrian conflict and large-scale internal and external displacement of the population have blocked the complete and accurate registration of vital events for many Syrians. Millions of people fled the armed conflict and sought refuge in neighbouring countries, such as Jordan, Lebanon, and Turkey. A 2015 study of Syrian refugees in Jordan found that thousands had experienced life events requiring official documentation, such as births, marriages, and deaths,⁴⁴ but faced ongoing problems in getting the documents they needed.

Children born outside Syria during the conflict may face challenges claiming their nationality. Under Syria's nationality law, acquiring nationality from a Syrian father is automatic at birth via *paternal jus sanguinis*, whether the child was born inside or outside Syria. By contrast, Syrian women can confer nationality to their children only if their child was born inside Syria. Because the law does not address the situation if the child is born outside Syria, an individual born abroad will acquire Syrian nationality only if the father is a Syrian national.⁴⁵

The registration of deaths has been badly affected, especially for those resulting from the conflict and violence. A study by the Economic and Social Commission for Western Asia found that even when refugees were listed with an official refugee agency, it was difficult to register the death of a family member and get a legally recognized copy of a death certificate. The reason is that the civil registration law is designed for Jordanian nationals and cannot readily accommodate the civil registration of non-nationals.

Reliable information on the extent of underregistration of deaths in these populations is sparse. It is generally based on findings from small-scale convenience samples that rely on self-reported survey responses from registered refugees. Also, the massive population movements have made it impossible to calculate birth and death rates because of unknown denominators.

People who are displaced by conflict and whose documentation is lost, destroyed, or confiscated are particularly vulnerable to statelessness if they are unable to replace their documents because civil registry archives have been destroyed due to the violence.

Not having this documentation also affects the registration of subsequent divorces, deaths, marriages, and births – all of which can affect a Syrian child's acquisition of nationality. Unregistered deaths have consequences for inheritance and remarriage. A widow who lacks proof of her husband's death cannot legally remarry, for example. Also, for families who buried their loved ones without first obtaining a death certificate, there may be legal consequences, such as criminal prosecution.

44 International Human Rights Clinic et al. 2015. <http://law.harvard.edu/wp-content/uploads/2015/11/Registering-rights-report-NRC-IHRC-October20151.pdf>

45 The UN Refugee Agency UNHCR. 2019c. refworld.org/pdfid/5db174a4.pdf

When administrative and governance structures are not in place for dealing with dead migrants, many of whom have no identity documentation, like-minded individuals come together to set standards for the dignified treatment of missing or deceased migrants (Figure 5).⁴⁶ Along several migrant routes, individuals and small groups take on the grim task of finding corpses, looking for evidence of origin and identity, and providing a burial.^{47 48 49 50} These lessons in humanity by ordinary people speak volumes about the lack of government action to ensure dignity in

death for people who must flee their homes and communities because of situations that are beyond their control.

There are also examples of collaboration between local governments and NGOs to find out what has happened to loved ones during migration journeys. For example, the Colibrí Center for Human Rights investigates cases of persons who have gone missing while crossing the U.S.-Mexico border.⁵¹ It builds relationships with the families of



Figure 5: When the State fails, individuals take on responsibility for the dead.

Boubacar Wann Diallo is devoted to determining the names and origins of corpses that wash up on Morocco's shores and to giving them a decent final resting place. Recent declines in the number of crossings and fatalities on this route have fuelled his determination to identify the dead, giving families news of their loved ones, however heartbreaking. "To families, there is always some doubt that the person maybe didn't die," he said. "It's very hard to believe and accept that they're dead."⁵²

In Colombia, Sonia Bermúdez set up a cemetery on the outskirts of her town, Riohacha, 20 years ago, when she became concerned there was no one caring for the people who died as unidentified "no names," victims of Colombia's 50-year conflict or from drug-related violence. More recently, she is using her *Gente Como Uno*, or People like Us cemetery to bury migrants and refugees from Venezuela, where the economic and political crisis has resulted in large numbers of migrants and refugees.⁵³

In Calais, northern France, in an unofficial camp separated by a narrow strip of the North Sea from England, migrants seeking to make it to England risk their lives every day. Locals and aid workers seek to fill the gap and provide a decent burial for the dead. "They died in a lot of ways [...] some drowned trying to swim to the ferries at (Calais) port, others from electrocution because of the poor safety standards at the camp." Refugees remaining in the camp struggle to cover the costs of leasing a burial plot, coffin, transportation, etc., which they can ill afford.⁵⁴

46 Greek Forum of Refugees. 2018. refugees.gr/the-mytilini-declaration-declaration-for-the-dignified-treatment-of-all-missing-and-deceased-persons-and-their-families-as-a-consequence-of-migrant-journeys

47 Alami, A. 2020. nytimes.com/2020/08/28/world/africa/morocco-bodies-migrants.html

48 King, A. 2019. edition.cnn.com/interactive/2019/12/us/no-olvidado-missing-migrants-border

49 Border Angels. borderangels.org/about-us.html

50 Dixon, L. 2020. pri.org/stories/2020-02-05/meet-woman-who-buries-forgotten-migrants-venezuela

51 Colibrí Center for Human Rights. colibrícenter.org

52 Alami, A. 2020.

53 Dixon, L. 2020.

54 Mandhai, S. 2016. aljazeera.com/features/2016/4/6/burying-refugees-who-die-in-the-calais-jungle

the missing and with the forensic scientists who investigate unidentified remains. This relationship between a governmental office and a non-profit NGO is an innovative practice that protects the needs of families and honours forensic best practices.

IMPACT OF CRISES ON CRVS SYSTEMS

Even in countries with well-established CRVS systems, maintaining functionality during crises and emergencies is hugely challenging for operational and political reasons. In Ukraine, for example, the civil conflict in the eastern part of the country has brought death, damaged infrastructure, and disrupted daily life for millions of people. Since December 2014, the Ukrainian state authorities have stopped providing civil registration and other services in the non-government-controlled areas (NGCA). Ukrainian authorities do not recognize documents that attest to identity, births, and deaths issued by the authorities in NGCA. That means NGCA residents who need to replace their lost, damaged, or expired civil documents have to take costly and perilous journeys across one of the five entry-exit checkpoints along the 500 km-long contact line with a special permit system. As a result, birth and death registration have dramatically declined, and thousands of children risk becoming stateless.⁵⁵

During conflicts, the CRVS system may stop working altogether. State archives and civil registries may be damaged or destroyed (sometimes deliberately), making it impossible for people to get copies of documents that attest to

vital events. For example, in 2007 Syria had almost complete birth registration; death registration was reported at 75 percent.⁵⁶ Since then, the years of conflict have led to many civil registration offices being destroyed. Even where the CRVS system is working, continuous power shortages stand in the way of timely registration and data entry.

In Afghanistan, Iraq, Somalia, and Yemen, countries with long-running civil conflicts, CRVS systems were and remain weak. In Iraq, a 1971 civil registration law assigned responsibility for birth and death registration to the Ministry of Health; birth and death registration was estimated at 68 percent and 34 percent, respectively. However, the system was never fully functional, and it broke down after 1990 with the start of the conflict. In 2009, the UN described the CRVS system as unreliable, with responsibilities not clearly outlined between different agencies, limited geographic distribution of registration facilities, and underqualified and inexperienced registrars.⁵⁷ When resilient statistical and health systems are lacking, it is impossible to have accurate counting of deaths and related characteristics. In Yemen, the UN estimates that only around 17 percent of children have a birth certificate⁵⁸ and only 1 death in 10 is registered.⁵⁹ The UN reports no registration data for Somalia, where no CRVS system or law is in place.

Disruption and damage to CRVS systems may also occur through political manipulation. For example, in some instances, registration records have been used to target particular ethnic or population groups.⁶⁰ This violates a core principle of civil registration: confidentiality of

55 Norwegian Refugee Council. 2018.

nrc.no/globalassets/pdf/briefing-notes/ukraine/briefing-note_civil-registration.pdf

56 United Nations Statistics Division. 2017. unstats.un.org/unsd/demographic-social/crvs/#coverage

57 United Nations. 2009. unstats.un.org/unsd/demographic/CRVS/Technical%20report%20ESCWA%20Final.pdf

58 UNICEF. 2018. [unicef.org/yemen/stories/yemeni-children-are-receiving-their-passport-life](https://www.unicef.org/yemen/stories/yemeni-children-are-receiving-their-passport-life)

59 United Nations Statistics Division. 2017.

60 Minority Rights Group International (MRG). 2017.

documents-dds-ny.un.org/doc/UNDOC/GEN/G18/246/55/PDF/G1824655.pdf?OpenElement

individual records. Such situations could diminish people's trust in official institutions, as people may be unwilling to register vital events if there are suspicions about how the information will be used.

Where CRVS systems are dysfunctional, families cannot register a newborn baby, a marriage or divorce, or the death of a family member. This means these vital events cannot be counted accurately. During conflict, not all parties may recognize documentation of vital events, which means their usefulness for legal purposes is limited.⁶¹ Accurate counts of deaths are particularly difficult and at risk of being politicized during conflicts. In Afghanistan,⁶² Iraq,⁶³ and Syria,⁶⁴ debate is ongoing on the number of deaths due to military interventions involving both State and non-State actors. Uncertainty in the death counts increases mutual distrust between communities and makes it harder to regain public confidence in governmental institutions.

HARNESSING SYNERGIES BETWEEN HUMANITARIAN ACTION AND CRVS

It can seem as if humanitarian action and CRVS systems inhabit different worlds. International agencies and NGOs are often the first on the scene when crises occur, whether due to war, civil conflict, disaster, or other emergencies. They aim to provide immediate relief when established social mechanisms and State institutions have become dysfunctional, and trust in government has been eroded. By contrast, civil registration functions are most effective in settings that are socially and politically stable, where the timely registration of vital events is seen as integral to



Photo: Dominic Chavez / World Bank

good governance and sound administration, and in which there is widespread public trust in State institutions. Humanitarian action steps in when these essential elements are damaged and degraded, especially during civil conflict. Humanitarian interventions aim to meet basic population needs such as survival, health, nutrition, and social and psychological support in times of crisis. Providing documentation for the living – such as birth certificates or certificates of refugee status – is a priority, as it makes it possible to identify those who are eligible for assistance. CRVS systems, on the other hand, are foundational for legal identity from birth to death. These systems help a person gain access to a wide range of entitlements and socioeconomic and political rights throughout their life, as well as generating vital statistics for the population.

During the early stages of a crisis, relief agencies focus on collecting information on deaths primarily to guide health programming and for advocacy purposes.⁶⁵ The issuing of administrative and legal documentation on deaths

61 Salahi, A. 2020b.

english.alaraby.co.uk/english/indepth/2020/1/28/how-many-people-have-died-in-syria-since-2011

62 Crawford, N. C. 2016. watson.brown.edu/costsofwar/files/cow/imce/papers/2015/War%20in%20Afghanistan%20and%20Pakistan%20UPDATE_FINAL.pdf

63 Fischer, H. 2010. fas.org/sgp/crs/mideast/R40824.pdf

64 McPherson, K. 2005. ncbi.nlm.nih.gov/pmc/articles/PMC554014/pdf/bmj33000550.pdf

65 Checchi, F. and Roberts, L. 2008.



Photo: Vincent Tremeau / World Bank

is often seen as a lower priority, even though such documents can be essential for surviving family members. Some efforts to gather mortality data among specific population subgroups, such as children and women of reproductive age, may end up creating parallel – often temporary – systems for producing data, but they do not provide individuals with documentary evidence of a death and are not linked to the CRVS system.

In principle, ad hoc systems for counting deaths, such as mortality surveillance, should have a legal basis so they can eventually be integrated into the local CRVS system.⁶⁶ Even if civil registration systems have been weakened by the conflict, they can still provide the basis for creating an archive of deaths. For the surviving family, the death record is important for legal reasons and for claiming certain rights based on parentage or marriage. Having political leaders acknowledge deaths can help to repair community relationships after the conflict.⁶⁷

Where international agencies and NGOs are involved in assisting refugee populations, they should follow international standards that recognize the responsibility of States to provide refugees and displaced persons with access to documentation of vital events.⁶⁸ The UN emphasizes that to prevent discrimination, the identity credentials issued to asylum seekers and refugees should be equivalent to those issued to the host population. Also, the births of refugee children and the deaths of refugees should be registered in the civil registration system of the host state.

While birth registration does not necessarily lead to conferring nationality to the children of refugees and migrants, it helps to recognize their legal status and provide the basis for any future claims of citizenship based on residence.⁶⁹ When deaths occur, humanitarian agencies should take measures to ensure that surviving family members receive valid documentation of the death and the circumstances around it that will be acknowledged as valid in both the host country and the country of origin, should the family decide to return at the end of the conflict.

Improved links between civil registration, humanitarian relief, and health and statistical systems will be important for the future, because all the signs show that civil conflict and climate change will continue to drive the migration and displacement of many millions of people around the world. Large population movements are now endemic due to economic, political, and moral failures. To meet these challenges demands a change in mindset, where it is acknowledged that population displacement is not a temporary phenomenon but one that will require long-term interventions to ensure the safety and stability of

66 Bowden, S. et al. 2012. doi.org/10.1186/1752-1505-6-11

67 Genocide Archive of Rwanda. 2015. genocidearchiverwanda.org.rw/index.php/Category:Memorials

68 United Nations. 2020. unstats.un.org/legal-identity-agenda/documents/UNCT-Guidelines.pdf

69 The UN Refugee Agency (UNHCR). 2017.

both migrants and inhabitants of host countries. It will be essential to work with State and non-State actors to generate trust and foster harmonious relations between displaced people and the local communities.

The civil registration of vital events among refugee and migrant populations is a moral issue and a fundamental human right: the right to be recognized. The right to recognition as a person before the law is enshrined in Article 6 of the Universal Declaration of Human Rights and in Article 16 of the International Covenant on Civil and Political Rights.⁷⁰ The International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families contains this right in Article 24: "Every migrant worker and every member of his or her family shall have the right to recognition everywhere as a person before the law." The civil registration system is the instrument that ensures this right can be realized.

BUILDING CRVS SYSTEMS AFTER CRISES

CRVS systems are recognized as foundational for effective State building, peace, and good governance.⁷¹ Yet crises and emergencies, especially those that are conflict related, often destroy the very basis that functional CRVS systems depend on: confidence and trust within society. Johan Galtung has described trust as the "foundation of social cooperation and positive peace."⁷² Trust is particularly important when reaching out to remote and marginalized groups,

who often suffer the most during conflicts and crises. They tend to be absent from the national CRVS system, which compounds their isolation and neglect. Failure to build trust can diminish the legitimacy of government institutions; augment hostility to government interventions, including the civil registration system; and drive people to evade legal requirements to register vital events or even to engage in violent opposition to CRVS, as occurred in northeastern Brazil in the late 19th century.⁷³

Repairing and rebuilding governance and administrative and CRVS systems that have been weakened during conflict, emergencies, and crises is particularly challenging in settings where historically the CRVS system has been used to exclude particular ethnic or social groups. In apartheid South Africa, for example, civil registration was widely perceived to be an instrument of exclusion and domination of the Black majority.⁷⁴ One of the first actions of the post-apartheid government in 1991 involved measures designed to build trust and confidence among the population, such as improved health care access, child support grants linked to birth registration, simplified administrative systems, and mobile registration services for hard-to-reach populations.⁷⁵

In a detailed study of Sierra Leone, Wong argues that listening and responding to the demands of people is the most effective way to restore trust and peace.⁷⁶ One way of listening is to help families track the fate of missing or dead relatives and ensure that these deaths are registered

70 Claiming Human Rights. 2018. claiminghumanrights.org/person_before_law_definition.html

71 Brolan, C. E. and Gouda, H. 2017. doi.org/10.1093/medlaw/fwx021

72 Galtung, J. 1969. [jstor.org/stable/422690](https://www.jstor.org/stable/422690)

73 Loveman, M. 2006. doi.org/10.1017/S0010417507000394

74 Fataar, R. 2020. reasonstobecheerful.world/south-africa-universal-birth-registration

75 Munk School of Global Affairs. 2013. munkschool.utoronto.ca/wp-content/uploads/2016/11/South-Africa-Reach-Report-compress.pdf

76 Wong, P. H. 2016. doi.org/10.1177/0022343316659334

and the remains buried.^{77 78} This can matter to people for many years after the events that led to the deaths of their loved ones. As well as contributing to healing among survivors after their loss, this process can provide a vivid illustration of the government's commitment to national reconciliation, fairness, and equity across the country.

When seeking to rebuild CRVS after conflicts and crises, involving civil society actors – including traditional leaders, women's groups, youth groups, and faith-based organizations – is key. An accumulating body of experience shows the important role that civil society can play in conflict transformation by promoting reconciliation, dialogue, networking, and conflict resolution.⁷⁹ At the same time, it is essential to involve NGOs, the private sector, parliamentarians, and non-State actors if the population is to trust CRVS and related identity systems.

Development agencies and NGOs can contribute to the peace process by supporting representatives of different communities and factions through dispute resolution processes. The aim should be to reach a common understanding of the contribution of CRVS to peace and State building, as well as to the more immediate benefits of legal

documentation for individuals, the establishment of individual identity, and population statistics. Governments, refugees, displaced persons, and irregular migrants need to work together and with governments to address the policy and institutional challenges and recreate mutual trust across populations and with political elites.

Health sector interventions can help to offset the negative impacts of conflict and emergencies on administrative and governance structures, including CRVS. However, success requires close cooperation and exchange with other aid and development actors across the spectrum and with actors across the different communities.^{80 81} As part of this, it is essential that vital events in refugee, displaced, and migrant populations are officially registered and that these populations receive recognized identity documentation.⁸² Maintaining or re-establishing CRVS systems requires effective liaison with strong coordination mechanisms of humanitarian assistance, investments in public administration, and work with communities and civil society. Emergencies can also provide an opportunity to strengthen State systems, where the State sustains investments in increased human resources, capacity building, and the revision of work protocols, bringing in more long-term results.

77 Niksic, S. and Emric, E. 2020. [washingtonpost.com/world/europe/25-years-on-srebrenica-dead-still-being-identified-buried/2020/07/09/16515280-c1b8-11ea-8908-68a2b9ea9e0_story.html](https://www.washingtonpost.com/world/europe/25-years-on-srebrenica-dead-still-being-identified-buried/2020/07/09/16515280-c1b8-11ea-8908-68a2b9ea9e0_story.html)

78 Bronwen, M. 2016. documents1.worldbank.org/curated/en/375811469772770030/pdf/Identification-in-the-Context-of-Forced-Displacement-Identification-for-Development-ID4D.pdf

79 van Tongeren, P. et al. 2005. rienner.com/title/People_Building_Peace_II_Successful_Stories_of_Civil_Society

80 Erismann, S. et al. 2019. health-policy-systems.biomedcentral.com/articles/10.1186/s12961-019-0420-7

81 Philips, M. and Derderian, K. 2015. doi.org/10.1186/s13031-015-0039-4

82 Fifth Conference of African Ministers Responsible for Civil Registration. 2019. apai-crvs.org/sites/default/files/public/CRVS-V-Importance%20of%20CRVS%20and%20ID%20Management%20for%20durable%20solutions%20for%20refugees.pdf#overlay-context=CR5

INTERNATIONAL INITIATIVES TO SUPPORT CIVIL REGISTRATION DURING CRISES

Amid the growing realization that core civil registration activities must continue during crises, some countries and international partners have made recommendations on strategies and actions to ensure that vital events are registered for populations affected by crises and emergencies. Here is a summary of the key recommendations:

- The Ministerial Conference on Civil Registration and Vital Statistics (CRVS) in Asia and the Pacific emphasizes the need for universal civil registration of births and deaths, with particular attention on hard-to-reach and marginalized populations and special measures to register currently unregistered populations.⁸³
- The Human Rights Council in 2014 identified the priority for birth registration and the right of everyone to recognition everywhere as a person before the law.⁸⁴
- The UNHCR Global Action Plan to End Statelessness 2014–2024 highlights examples of how States, UNHCR, and other stakeholders have addressed statelessness in a number of countries.⁸⁵
- The World Bank Global Civil Registration and Vital Statistics (CRVS) Scaling Up Investment Plan 2015–2024 describes activities needed to reach the goal of universal civil registration of births, deaths, marriages, and other vital events, including reporting cause of death, and access to legal proof of registration for all individuals by 2030.⁸⁶
- The fourth Conference of African Ministers Responsible for Civil Registration in 2017 drew attention to the importance of registering vulnerable children such as street children, ensuring timely and compulsory civil registration for all refugee children, and including nationality and origin in the registration of vital events of refugees.⁸⁷



Photo: Salah Malkawi / UNDP

83 Ministerial Conference on Civil Registration and Vital Statistics (CRVS) in Asia and the Pacific. 2014.

getinthepicture.org/sites/default/files/resources/Ministerial.Declaration.English.final__o_o.pdf

84 United Nations. 2014. ohchr.org/EN/HRBodies/HRC/RegularSessions/Session27/_layouts/15/WopiFrame.aspx?sourcedoc=/EN/HRBodies/HRC/RegularSessions/Session27/Documents/A_HRC_27_22_ENG.doc&action=default&DefaultItemOpen=1

85 The UN Refugee Agency (UNHCR). 2017.

86 World Bank. 2014.

worldbank.org/en/topic/health/publication/global-civil-registration-vital-statistics-scaling-up-investment

87 Fourth Conference of African Ministers Responsible for Civil Registration. 2017. apai-crvs.org/sites/default/files/public/Nouakchott%20Declaration%20-%20Dec2017-English.pdf

- The UNICEF 2017 Global Programme Framework for Children on the Move includes six “policy asks” on migration and displacement:⁸⁸
 - Protect child refugees and migrants from exploitation and violence;
 - End the detention of children seeking refugee status or migrating;
 - Keep families together;
 - All refugee and migrant children keep learning and have access to health and other quality services;
 - Press for action on the underlying causes of large-scale movements of refugees and migrants; and
 - Promote measures to combat xenophobia, discrimination, and marginalization in countries and areas of transit and destination.
- The 2018 Intergovernmental Conference adopted the Global Compact for Safe, Orderly and Regular Migration which is designed to address the challenges associated with today’s migration, and to strengthen the contribution of migrants and migration to sustainable development.⁸⁹
- The World Health Organization’s 72nd World Health Assembly in 2019 endorsed a global action plan to promote the health of refugees and migrants. The action plan is designed to address the health and wellbeing of refugees and migrants, and achieve universal health coverage and the highest attainable standard of health for these vulnerable populations.⁹⁰

- The Regional Platform for refugees and migrants from Venezuela was set up to coordinate the national and regional governments’ responses in line with the New York Protocol on the Status of Refugees and Migrants.⁹¹

EXAMPLES OF STRATEGIES TO FACILITATE CIVIL REGISTRATION AMONG VULNERABLE POPULATIONS

Preventing the spread of COVID-19 among vulnerable populations

The COVID-19 pandemic has not spared vulnerable populations such as undocumented migrants and refugees. Unregistered migrant workers may be particularly exposed to infection due to crowded living conditions and their inability to take preventive measures. They also often face challenges in accessing social and health services. In Singapore, for example, initial success in containing the spread of COVID-19 was halted when the virus spread among thousands of migrant workers living in crowded conditions.⁹² Emerging evidence suggesting that the second wave in Europe originated in vulnerable migrant populations in Spain.⁹³ Some people suspect that these outbreaks among migrant workers are linked with those in slaughterhouses in Europe; in both cases, the workforce is largely undocumented migrants who don’t have formal contracts.⁹⁴ These examples highlight the vulnerability of migrant workers, many of whom are undocumented and have trouble accessing health services due to bureaucracy and local

88 UNICEF. 2017. [unicef.org/media/62986/file](https://www.unicef.org/media/62986/file)

89 International Organization for Migration. 2016. iom.int/global-compact-migration

90 World Health Organization (WHO). 2019. apps.who.int/gb/ebwha/pdf_files/WHA72/A72_25-en.pdf

91 Coordination Platform for Refugees and Migrants from Venezuela. 2020. r4v.info/en/situations/platform

92 Han, E. et al. 2020. [thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)32007-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)32007-9/fulltext)

93 Ibid.

94 Ferrer, S. 2020. eldiario.es/sociedad/leccion-oculta-coronavirus-genoma-controlar-pandemia-hay-proteger-desfavorecidos_1_6377692.html

administrators' disinterest.⁹⁵ Some countries have developed strategies to protect vulnerable populations and thus slow the spread of COVID-19 into the wider population. For instance, Portugal and Italy have made efforts to regularize all migrants who had applied for residence; the aim was to ensure citizen rights in the country during the pandemic.^{96,97}

Improving the lives of Rohingya refugees

The Rohingya population in Myanmar has suffered ongoing discrimination. Their right to be registered, vote, or participate in civic life is limited.⁹⁸ As a result of violent attacks during 2016 and 2017, over 1 million Rohingya fled their homes; most of them went to Bangladesh. Amnesty International has documented human rights violations against Rohingya populations in Myanmar, including lack of citizenship and identity cards; extortion and arbitrary taxation for registration; and a requirement for permission to marry.⁹⁹ Rohingyas living in Bangladesh refugee camps receive limited health services, lack legal status, and have restrictions placed on their movements. UNHCR has expressed concerns about the increased gender-based violence toward women and girls from the unregistered Myanmar Rohingya population.¹⁰⁰

The creation and implementation of identity cards for registering Rohingya refugees in Bangladesh is an example of collaboration and bilateral agreement between UNHCR and the government of Bangladesh. It allows for the

protection, identity management, documentation, provision of assistance, and population statistics of the Rohingya displaced population.¹⁰¹ Amnesty International has suggested that the Myanmar government amend or repeal its citizenship laws to bring them in line with international standards. It has also asked the international community to take action to ensure that UNHCR is given resources for its mandate with persons who have been rendered effectively stateless in Myanmar. UNHCR has called for

- a national asylum mechanism and refugee legislation to ensure unhindered access of persons who need international protection to the territory of Bangladesh and full compliance with the principle of non-refoulement;¹⁰²
- measures to ensure that all refugee and stateless women and girls have effective access to interventions that address the root causes of trafficking and exploitation of prostitution by regularizing the status of unregistered Rohingya;
- the effective implementation of nationality legislation so that children born to Bangladeshi and Rohingya parents, who are entitled to Bangladeshi nationality, can effectively acquire it; and
- amendments to the 1951 *Citizenship Act* to allow children born to Bangladeshi mothers before 31 December 2008, to acquire Bangladeshi citizenship.

95 Linde, P. 2020. elpais.com/sociedad/2020-09-23/me-dijeron-que-no-podian-hacerme-la-pcr-por-no-tener-papeles.html

96 Vargas, J. 2020. publico.es/sociedad/regularizacion-migrantes-covid-19-espana-no-regularizar-migrantes-italia-portugal.html

97 Republic of Singapore. 2020. gov.sg/article/tackling-transmissions-in-migrant-worker-clusters

98 Parmar, P. K. et al. 2019. doi.org/10.1080/26410397.2019.1610275

99 Amnesty International. 2004. [amnesty.org/download/Documents/92000/asa160052004en.pdf](https://www.amnesty.org/download/Documents/92000/asa160052004en.pdf)

100 The UN Refugee Agency (UNHCR). 2007. [unhcr.org/46fa1af32.pdf](https://www.unhcr.org/46fa1af32.pdf)

101 UN News. 2018. news.un.org/en/story/2018/07/1014082

102 United Nations Human Rights. [ohchr.org/Documents/Issues/Migration/GlobalCompactMigration/ThePrincipleNon-RefoulementUnderInternationalHumanRightsLaw.pdf](https://www.ohchr.org/Documents/Issues/Migration/GlobalCompactMigration/ThePrincipleNon-RefoulementUnderInternationalHumanRightsLaw.pdf)

The Bangladesh government has developed strategies to protect the Rohingya population in the country, including adopting a National Strategy on Myanmar Refugees and Undocumented Myanmar Nationals.

Identifying the migrant dead

The Italian Special Commissioner represents an example of good practice in national coordination for identifying and registering migrants who perish during migrant journeys and whose bodies are recovered.¹⁰³ Coordination among the relevant public and private actors makes it possible to cross-check information on missing persons and unidentified bodies. This entails constant updates of the national database on missing persons and contact with the families of the disappeared. Because it is a centralized authority and because of its role and competences, this reduces the risk of fragmented approaches to identification and the sharing of information and data. The fact that it is a national institution that they can easily identify and contact for help and information can also be a point of reference for families, foreign authorities, and associations involved in searching.¹⁰⁴ The Commission also coordinates its work with academic institutions that analyze the data and create a database with autopsy results and anthropological information. A report with the results of the forensic and anthropological investigation is then sent to the public prosecutor's office in Catania, which relatives can consult upon request. There is no deadline for families to have access to information about the body.

As Frank Laczko and colleagues observe, these experiences have demonstrated

“the need for European States holding post-mortem data to have national structures that can centralize data, and for them to have access to ante-mortem data from a range of other sources, including potentially States of migrant origin, other European States and directly from families. This demands the creation of a global architecture that would enable the collection and storage of both ante- and post-mortem data concerning missing migrants from a range of sources, including State authorities and families. Matching of ante- and post-mortem data could be made either at national level or through some transnational structure.”¹⁰⁵

CONCLUSIONS

Death is inevitable, but the circumstances and causes of death are not. For people living through conflicts, crises, and disasters, death is too often premature, brutal, and hidden. The causes of humanitarian crises and emergencies are complex and will take time to resolve. In the meantime, each death should be formally acknowledged and counted so the corpse can be disposed of with dignity and humanity and so each surviving family has an official record of the existence and demise of a loved one.

103 Robins, S. 2018. publications.iom.int/system/files/pdf/identification_of_missing_migrants.pdf

104 Romano, S. 2016.

mediterraneanmissing.eu/wp-content/uploads/2015/10/Mediterranean-Missing-Italian-legal-memo.pdf

105 International Organization for Migration. 2017. publications.iom.int/system/files/pdf/fatal_journeys_volume_3_part_1.pdf

The recording of a death is not only for instrumental purposes such as assigning responsibility, important though that is; it is also an essential action that recognizes the inherent value of every life.¹⁰⁶ Recording key characteristics of the deceased – at a minimum, their age and sex – exemplifies the need to dignify every death by knowing as much as possible about the victim. This can be particularly important during emergencies and disasters when documentation about the decedent will likely not be available.¹⁰⁷ Functional CRVS systems that can register deaths, issue documentation to surviving families, and maintain archives over the long term are key to meeting these conditions.

The accompanying paper in this series, *Building Resilient CRVS Systems: Lessons from the COVID-19 Pandemic and Other Emergencies*, sets out a framework for resilient CRVS systems. These include:

- Core functions (equity, financing, governance and legal framework, human resources, operations, and monitoring and evaluation); and
- Associated core competencies (integrated, responsive, agile, efficient, essential, inclusive, and robust).

Guided by this framework, country decision-makers will be better prepared to function effectively in the face of future emergencies and shocks.

In 2005, Hurricane Katrina swept through the southern United States. The scene that greeted rescuers was described as being “like a war zone.”¹⁰⁸ Counting and identifying all the dead and the causes of their deaths was extremely challenging, despite the available resources in the richest country in the world and guidance from the U.S. Centers for Disease Control.¹⁰⁹ A decade later, there remains uncertainty about the total number of deaths¹¹⁰ and no comprehensive list of Katrina victims has been published by state or federal authorities. This remains a matter of regret. As Louisiana’s chief medical examiner pointed out, “I think it’s important for everybody to understand that it’s about the individual... We handle every person as the individual and with the dignity they deserve.”¹¹¹ Every death, wherever it occurs and whatever the circumstances, deserves this same respect.

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111 O'Neill, A. 2005. edition.cnn.com/2005/US/09/09/katrina.morgue/index.html

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ANNEX A: AGENCIES INVOLVED IN COUNTING DEATHS AMONG DISPLACED PEOPLE

Region	Name of Organization/Institution	Included in Count	Area Covered	Period		Frequency	Sources
				Start	End		
Global	International Committee of the Red Cross (ICRC) Missing persons	Dead and missing persons as a result of armed conflict or a situation of internal violence; not focused on migrants specifically.	Global	1870	Ongoing	Records each incident discovered. Data available on request.	Families, direct witnesses, government authorities, and any other sources to help identify, track, report, and reunite missing people and families.
Europe/Mediterranean	UNITED for Intercultural Action	Deaths occurring en route to destination and attributable directly or indirectly to immigration policies once in destination. These include those whose bodies are found and those missing and presumed to be dead.	European borders (external and internal), Mediterranean, North Africa, Mayotte	1 January 1993	Ongoing	Reports each incident discovered.	Data is generally collected through media, own research, information received from the 550 network organizations in 48 countries, and from local experts, journalists, and researchers.
Europe/Mediterranean	Fortress Europe	All people dying to trying to enter Europe. These include, for instance, those who die while crossing the Mediterranean and those who die in Africa who are presumed to be on their way to Europe.	European borders, Mediterranean, North Africa, Mayotte	1 November 1988	Ongoing	Reports each incident discovered.	Media reports.

ANNEX A: AGENCIES INVOLVED IN COUNTING DEATHS AMONG DISPLACED PEOPLE (CONTINUED)

Region	Name of Organization/ Institution	Included in Count	Area Covered	Period		Frequency	Sources
				Start	End		
Europe/ Mediterranean	Asociación Pro Derechos Humanos de Andalucía (ADPHA)	Deaths occurring en route to destination and attributable directly or indirectly to immigration policies once in destination. These include those whose bodies are found and those missing and presumed to be dead.	Southern border of Spain; Strait of Gibraltar.	1997	Ongoing	Annual report	Monitors and verifies data collected from governments, non-governmental organizations, media, and interviews.
Europe/ Mediterranean	Italian Special Commissioner for Missing Persons	Missing persons thought to have died at sea or on land; not focused on migrants specifically.	Italy (external borders and within the country)	31 January 2008	Ongoing	Periodically updated each verified incident discovered in national online registry; semi-annual and annual reports.	Public and private entities: media outlets, non-governmental organizations, and local government bodies.
Europe/ Mediterranean	The Migrant Files	Deaths occurring en route to destination and attributable directly or indirectly to immigration policies once in destination. These include those whose bodies are found and those missing and presumed to be dead.	European borders (external and internal), Mediterranean, North Africa, Mayotte.	1 January 2000	Ongoing	Reports each incident discovered.	Combines data from UNITED, Fortress Europe, and PULS.

Source: International Organization for Migration, *Fatal Journeys: Tracking Lives Lost during Migration*. publications.iom.int/books/fatal-journeys-tracking-lives-lost-during-migration

Alternative Information Sources on Deaths in Brazil in the Context of the COVID-19 Pandemic

by Everton E. C. Lima, Marcos R. Gonzaga, Flávio H. M. de A. Freire, and Bernardo L. Queiroz

INTRODUCTION

Part of the history of vital events compilation in Brazil begins in 1944, when the Federal Bureau of Biostatistics of the National Department of Health published the Biostatistics Yearbook, presenting data on mortality causes for the years 1929 to 1932 for deaths that took place in Brazilian capital cities.¹ In the early 1970s, the Brazilian Institute of Geography and Statistics (IBGE) began to publish mortality data, based on causes of deaths, but not on a regular basis.² From 1975 on, mortality data also began to be collected by the Ministry of Health through the Mortality Information System (MIS), which contributed substantially to advances in death information and studies in the country.³ Thus, since 1976, the country has had two independent sources for compiling death data in the nation, which allows for building population

demographic and health indicators.⁴ It is important to highlight that a unified nationwide death certificate only occurred in 1975, with the Ministry of Health implementing a single model, and that there were local strategies for collecting and disseminating mortality data since the beginning of the 20th century, as in São Paulo.⁵

The two sources of information on deaths in the country have co-existed, with varying completeness and coverage between the major regions and states. Although the origin of the record is the same (death certificate or declaration issued by a medical doctor), the path taken by the information until it is made available to the user is disparate. The flowchart in Figure 1 shows the path taken by the death certificate from the place of issue until its availability to the user.

1 Jorge, M. H. Prado de Mello et al. 2007. pubmed.ncbi.nlm.nih.gov/17680121/

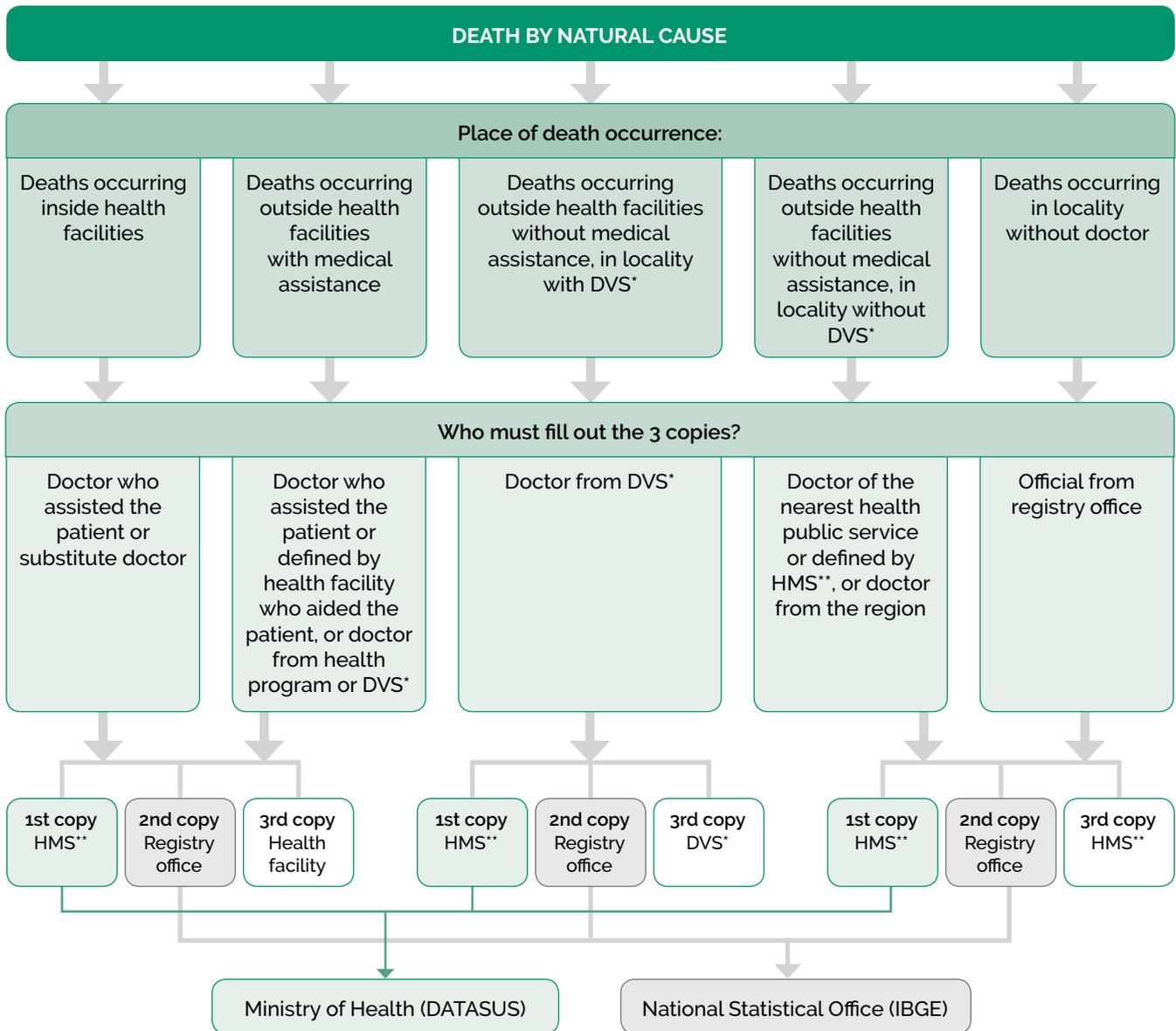
2 Baldijão, M. F. A. 1992. produtos.seade.gov.br/produtos/spp/v06n04/v06n04_04.pdf

3 Jorge, M. H. Prado de Mello et al. 2007.

4 Vasconcelos, A. M. N. 1998. rebep.org.br/revista/article/view/416

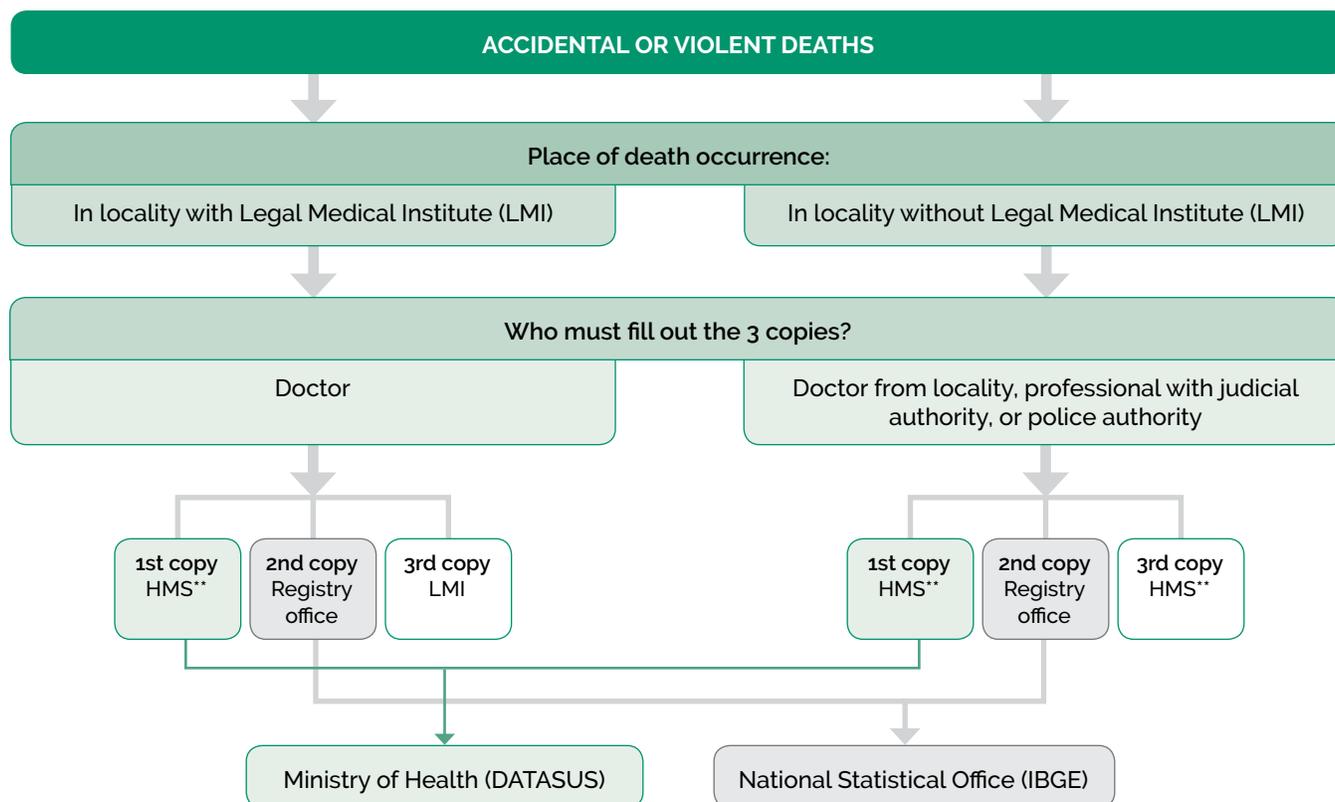
5 Waldvogel, B. C. and de Carvalho Ferreira, C. E. 2003. produtos.seade.gov.br/produtos/spp/v17n03-04/v17n03-04_06.pdf

Figure 1: Flow of death certificates in Brazil.



Source: Adapted from the instructions manual for filling out of death form. Ministry of Health. Brasília, 2011

*Death Verification Service; **Health Municipality Secretary

Figure 1: Flow of death certificates in Brazil (continued).

Source: Adapted from the instructions manual for filling out of death form. Ministry of Health. Brasilia, 2011

*Death Verification Service; **Health Municipality Secretary

The path taken by accidental and/or violent death is slightly different from other causes of death due to the presence (or not) of the medical facility in the location where the death occurred. In general, a copy of the death certificate is registered with a notary and becomes part of the civil registry, which is compiled and made available by the IBGE. A second copy is filed with the municipal health department, goes to the Ministry of Health, and is made available to the user through the MIS. A third route is through the health establishment, which can be a hospital, legal medical institute, municipal health department, or death verification service. The Ministry of Health compiles the death information, which arrives in a decentralized manner through municipal health departments, while the IBGE centralizes collection through the registry offices. This can be seen as a good Brazilian practice that could be followed by other nations with less developed civil registration systems. More recently, the Ministry of Health has put forward a proposal for electronic death certificates.

Death records systems are made available to the public at the Ministry of Health (DATASUS) and the IBGE. The Ministry of Health database provides death records access online,⁶ as does IBGE.⁷ The municipal mortality registries contain death information by age and sex, as well as other demographic information regarding birth care, prenatal care, and fertility. DATASUS also contains information on primary and secondary

causes of death, in addition to a series of socio-economic data.

In addition to the fact that information goes through different paths until its availability to the user, there are other socio-economic, demographic, and cultural factors with important regional disparities. For example, rural populations, especially in the north and northeast of the country, have lower socio-economic levels that generally do not realize the importance of registration. All of this affects information quality, in coverage and completeness.⁸

Despite the national increase in coverage from both data sources, data is still precarious in some locations, especially in the north and northeast of the country,^{9,10,11} which also reflects the poor quality of mortality information in certain areas of Brazil. Information gaps in the poorest municipalities show the enormous health inequities in the Brazilian population, also reflecting the lack of access to public health goods and services.¹²

It should be noted that over the past few years, the Ministry of Health has been investing in continuing improvements in the MIS, aimed at reducing the percentage of deaths registered as ill-defined, developing new data collection technologies, and conducting staff training. Improvements in recording information on causes of death occurred through the implementation of a specific project by the ministry with a role in

6 DATASUS. 2020. datasus.saude.gov.br/

7 SIDRA. 2020. sidra.ibge.gov.br/home/pms/brasil

8 Vasconcelos, A. M. N. 1998.

9 Agostinho, C. S. 2009. cedepiar.ufmg.br/publicacoes/teses-e-dissertacoes/teses-demografia/category/130-2009

10 Lima, E. E. C. and Queiroz, B. L. 2014. scielo.br/scielo.php?script=sci_arttext&pid=S0102-311X2014000801721

11 Queiroz, B. L. et al. 2017. scielo.br/scielo.php?pid=S1415-790X2017000500021&script=sci_arttext&lng=en

12 Kanso, S. Romero et al. 2011. pubmed.ncbi.nlm.nih.gov/21808817/

investigating deaths by ill-defined causes and, in some cases, by verbal autopsy.^{13,14}

In addition to the classic problems related to underreporting of deaths, completeness, poor classification of age at death, and the excessive number of deaths classified as ill-defined,^{15,16} another recurring problem is the time of availability of information. Such data is made available monthly by municipal and state health departments, and currently only information for 2018 is available from both sources.^{17,18} We must ask ourselves how these agencies could provide quick access to information on deaths in times of stress, such as the current COVID-19 pandemic that the country is experiencing.^{19,20}

Given this context, what alternative sources of mortality information and death data classified by infection by the new cause of death (SARS-CoV-2) have emerged in the country to fill this time gap left by official sources of mortality information? This paper will discuss the role of these alternative sources of collecting mortality information in the context of the pandemic. We will explain the history of the official sources of death information, their main quality issues, and finally, give a brief account of alternative information sources.

SOURCES OF VITAL STATISTICS IN BRAZIL WITH A FOCUS ON MORTALITY

Mortality data from the Instituto Brasileiro de Geografia e Estatística

Civil registry statistics are collections of information from official public administrative records that provide elements for demographic studies. These aim to monitor events that change the size or composition of the population over time.²¹

The first *de facto* act related to the future functioning of the civil registry was the prohibition on burying people without a death certificate issued by a "doctor or other practitioner," determined by a law in 1814.^{22,23} In the second half of the 19th century, more decrees were issued that regulated marriages and death records of those who did not profess the Catholic faith. At the beginning of the 1860s, due to the intensification of international migration in the country, decrees were passed that assigned regulation of death records of all those who did not profess the official religion at the time, Catholicism, to the state.^{24,25}

13 França, E. B. et al. 2014. scielo.br/scielo.php?script=sci_abstract&pid=S1415-790X2014000100119&lng=pt&nrm=iso

14 Cunha, C. C. D. et al. 2017. doi.org/10.5123/s1679-49742017000100003

15 Lima, E. E. C. and Queiroz, B. L. 2014.

16 Cunha, C. C. D. et al. 2017.

17 IBGE. 2020a. ces.ibge.gov.br/apresentacao/portarias/200-comite-de-estatisticas-sociais/base-de-dados/1148-estatisticas-do-registro-civil.html

18 DATASUS. 2020.

19 Adjiwanou, V. et al. 2020. doi.org/10.31235/osf.io/4bu3q

20 Rao, C. 2020. who.int/bulletin/volumes/98/5/20-257600/en/

21 Oliveira, L. A. P. and Simões, C. C. D. S. 2005. rebep.org.br/revista/article/view/245

22 Ibid.

23 IBGE. 2020a.

24 Oliveira, L. A. P. and Simões, C. C. D. S. 2005.

25 IBGE. 2020a.



Photo: Mariana Ceratti / World Bank

In 1888, the Civil Registry of Natural Persons underwent changes. The civil registry of individuals was created and statistics on births, deaths, and marriages were no longer the responsibility of the Catholic Church, but were transferred to the General Directorate of Statistics and, therefore, to the Demographic, Moral, and Political Statistics Service of the Ministry of Justice.²⁶ From that point, the country began to regulate birth, death, and marriage records. It is worth highlighting that death records still lacked breadth throughout the Brazilian territory.²⁷ Nevertheless, over the course of several periods of Brazilian history, the civil registry underwent numerous modifications through the coordination of various bodies in a diversified process of implementation and consolidation.^{28 29}

First, Decree No. 70210 of 1972 transferred the authority of producing vital statistics to the IBGE and this was reiterated by *Law 6015 of 1973*. This law also established the country's current civil registry system, incorporating the changes introduced by *Law 6140 of 1974* and *Law 6216 of 1975*. The delegation assignment was established by the 1988 Constitution (Article 236), regulated by *Law 8935 of 1994*. These laws transferred the responsibility for processing vital statistics from the Ministry of Justice to the Ministry of Planning.³⁰ These laws also established standards regarding the civil registration of natural persons, among others. In addition, the decree delegated the task of collecting and processing civil registry statistics to the IBGE, as well as the body's responsibility to provide the necessary forms to civil registry officers. It also stated that these must be sent to the IBGE within the first eight days of January, April, July, and October of each year, reviewing the data on registered births, marriages, and deaths. In the specific case of death records data, these have been regularly collected by this body since 1974.³¹

It is important to note that until 1997, civil registration and the respective certificate were free of charge to people who were proven poor, and according to Law 9.534 of the same year, free civil registration of natural persons was determined for all Brazilians.^{32 33} In addition, the death record was legally supported and, in legal terms, became a precondition for all burials. This data is available to the public through the IBGE Automatic Recovery System.³⁴

26 Ibid.

27 Vasconcelos, A. M. N. 1998.

28 Senra, N. 2006. biblioteca.ibge.gov.br/index.php/biblioteca-catalogo?id=282656&view=detalhes

29 Senra, N. 2008. scielo.br/scielo.php?script=sci_arttext&pid=S0104-59702008000200011&lng=pt&tlng=pt

30 IBGE. 2020a.

31 Ibid.

32 Presidência da República. 1997. planalto.gov.br/ccivil_03/leis/l9534.htm

33 Oliveira, L. A. P. D. and Simões, C. C. D. S. 2005.

34 SIDRA. 2020.

Despite all these regulations, the collection of death data still suffers from several difficulties. First, until 1997, legal authorities used to charge for birth and death certificates,³⁵ which led to an insufficient number of vital event registrations and, in many cases, late birth and death registrations, especially among those of lower socio-economic strata who lived in the poorest areas of the country.³⁶ Second, the initial official procedure for recording vital events required the presence of two witnesses.³⁷ Finally, medical information on the causes of death was not available in these records, data collection was scattered, standardization was lacking, and information was incomplete and not dated, which constituted an obstacle to effective planning. This, in turn, prompted the creation of other mortality information systems.

In 2007, Decree 6289 established the national commitment to eliminating underreporting of vital statistics. Among other measures, a task force was created to standardize the records, with the creation of a National Registry Office. In it, a unique identification number was assigned to each civil registry office. In addition, birth, marriage, and death certificate forms were standardized nationally, creating a unique registration number for each. These standards were regulated by the National Council of Justice in provisions 2 and 3, and amended by provision 63/2017.

Mortality data from the Ministry of Health

In parallel with the creation of the death registration system under the care of the IBGE, and due to the lack of information on the causes of death, Law 6.229 was passed in 1975. This set out the creation of the National Epidemiological Surveillance System, which served as a subsystem of mortality information.³⁸ The Ministry of Health then created an independent system for collecting mortality information, the MIS.^{39,40} Under this system, a single death certificate form was established throughout the country, whose information on causes of death followed the international standard proposed by the World Health Organization. In addition, a standardized flow of data was created, and it was established that its printing, processing, and distribution should be handled at the central level.^{41,42} Also supported by the creation of the Brazilian Centre for Classification of Diseases, the MIS framework was enlarged. The centre worked on training personnel to classify causes of death and raise awareness among health authorities about the relevance of their data.

Another important point was the adoption of a single standardized death certificate form for deaths and fetal deaths, which facilitated standardization of information. Highlighted among the timely changes that occurred with the MIS⁴³ were the following:

35 Oliveira, L. A. P. D. and Simões, C. C. D. S. 2005.

36 Vasconcelos, A. M. N. 1998.

37 Ministry of Health. 2009.

portalarquivos2.saude.gov.br/images/pdf/2015/agosto/14/Declaracao-de-Obito-WEB.pdf

38 Jorge, M. H. Prado de Mello et al. 2007.

39 Ministry of Health MIS. 2020b. opendatasus.saude.gov.br/dataset/casos-nacionais.

40 Vasconcelos, A. M. N. 1998.

41 Ibid.

42 Jorge, M. H. Prado de Mello et al. 2007.

43 Ibid.

- Sequential numbering was used to control issuance, distribution, collection, and retrieval of death certificates.
- A live birth declaration number was used in death certificates for children under 1 year of age, to pair information with data from the Live Birth Information System.
- As a way of collecting information on maternal mortality, specific variables were introduced to identify whether women of childbearing age who died were pregnant at the time of death or had been pregnant within one year of the fatality.
- The government sought to collect important population characteristics, such as race and colour of the deceased, to identify specific social strata.
- A field related to death by external causes was introduced, with a summary description of the event and the source, which allowed such a description.
- The exchange of information from the medical certificate to the conditions and cause of death was a way to remove any idea that the physician was the only one responsible for filling in this field.
- Following recommendations of the 10th International Classification of Diseases (ICD-10) revision, the MIS included a field to facilitate codification of the causes noted on the certificate.

Currently, death certificates are completed in three copies of different colours, with specific flows for deaths occurring in homes and hospitals (Figure 1). The document is filled out by a physician or, if the death is due to unnatural causes, by a coroner.⁴⁴

The Ministry of Health uses a decentralized model, and gathers information on deaths obtained by state health departments. Death certificates are distributed by the ministry to the state health departments, and from there to the municipal health departments. Municipal health departments control death certificate distribution to health facilities, civil registry offices, forensic medicine institutes, and so on.⁴⁵

Also, Administrative Ruling 474 and 20 of 2000 and 2003 mandated the data collection, flow, and frequency of sending death information from municipal health departments to state health departments. Financial resource transfers to municipal health departments were suspended if they failed to supply the health information systems, including the MIS, for two consecutive months. These measures served to consolidate the MIS.⁴⁶

As a means of dissemination, this mortality data is available online, with information on deaths by place of residence and occurrence, sex, age, and causes grouped in ICD-9 chapters for the years 1977 to 1995, and ICD-10 from 1996 until recently. This source collects information on approximately 1 million deaths per year annually.^{47 48}

44 Ministry of Health. 2009.

45 Jorge, M. H. Prado de Mello et al. 2007.

46 Ibid.

47 DATASUS. 2020.

48 Jorge, M. H. Prado de Mello et al. 2007.

PROBLEMS WITH MORTALITY INFORMATION SOURCES

Underreporting of deaths

Mortality estimates are essential for better understanding the demographic dynamics and impacts of the pandemic on diverse populations. However, in Brazil and various other countries around the world, estimating mortality has become a challenge, as the quality of information is generally unsatisfactory.^{49 50 51} In the case of Brazil, the data obtained from the civil registry system and from the Ministry of Health have limitations. The MIS, organized by the Ministry of Health based on death certificate information, and the civil registry, under the responsibility of the IBGE, contain information collected from Brazilian registries and disseminated by the IBGE.⁵²

One potential advantage of the MIS in the pandemic context is the greater amount of information available and the record of the cause of death according to the International Classification of Diseases. However, this data will not be available soon since the process of data dissemination goes through several stages and reviews. The vital statistics system (civil registry) gathers information on live births, marriages, deaths, and stillbirths reported by civil registry offices for individuals, as well as divorces registered by family courts, civil courts, and registry offices, but as noted above, it has limitations.⁵³



In both databases, difficulties in the data sources used to estimate mortality are related to incomplete coverage of the death record and errors in the age declaration, both in the death record and in population data.^{54 55} This large data limitation results in highly underestimated calculations of mortality rates in different locations of the country and, consequently, an overestimation of life expectancy at birth.⁵⁶ Figure 2 shows male life expectancy at birth estimated and adjusted for underreporting in applying the Bayesian model proposed by Schmetmann and Gonzaga for the year 2010,⁵⁷ as well as estimates with no underreporting correction from both data sources: MIS (Ministry of Health) and the civil registry (IBGE).

49 Queiroz, B. L. et al. 2017.

50 Luy, M. 2012. link.springer.com/article/10.1007/s13524-012-0101-4

51 Agostinho, C. S. 2009.

52 These are available for 2018 and 2020 through the Transparency Portal.

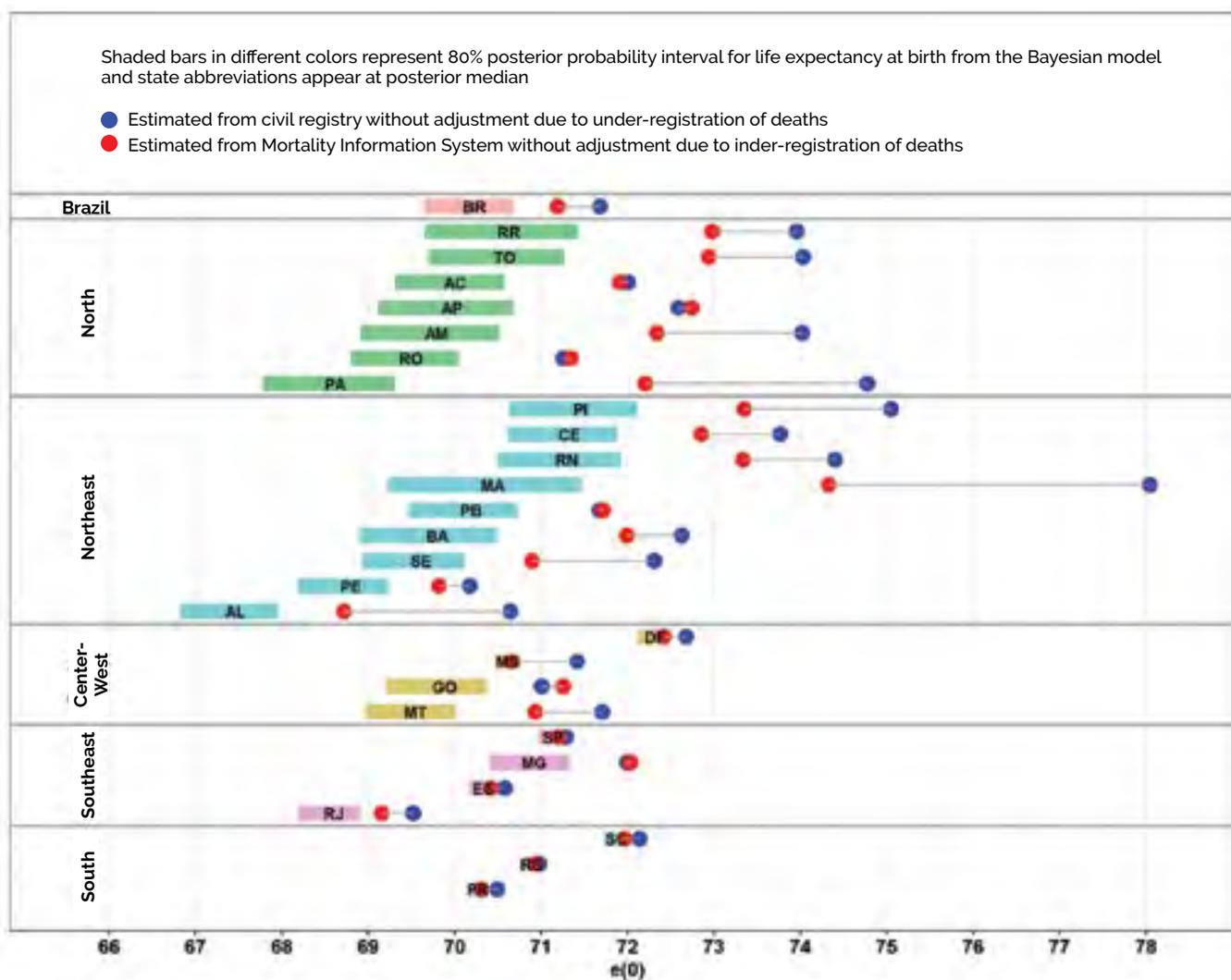
53 Mikkelsen, L. et al. 2015. [thelancet.com/journals/lancet/article/PIIS0140-6736\(15\)60171-4/fulltext](https://thelancet.com/journals/lancet/article/PIIS0140-6736(15)60171-4/fulltext)

54 UN DESA. 2017.

55 Hill, K. et al. 2009. demographic-research.org/volumes/vol21/9/default.htm

56 Lima, E. E. C. and Queiroz, B. L. 2014.

57 Schmetmann, C. P. and Gonzaga, M. R. 2018. link.springer.com/article/10.1007/s13524-018-0695-2

Figure 2: Male life expectancy at birth by state according to major regions, Brazil (2010).

Source: Ministry of Health (MIS/DATASUS), Civil Registry (IBGE), and Schmetmann and Gonzaga (2018)

Note: BR (Brazil), RO (Rondônia), AC (Acre), AM (Amazonas), RR (Roraima), PA (Pará), AP (Amapá), TO (Tocantins), MA (Maranhão), PI (Piauí), CE (Ceará), RN (Rio Grande do Norte), PB (Paraíba), PE (Pernambuco), AL (Alagoas), SE (Sergipe), BA (Bahia), MG (Minas Gerais), ES (Espírito Santo), RJ (Rio de Janeiro), SP (São Paulo), PR (Paraná), SC (Santa Catarina), RS (Rio Grande do Sul), MS (Mato Grosso do Sul), MT (Mato Grosso), GO (Goiás), and DF (Distrito Federal).

The effect of underreporting deaths is clear from the estimates shown in Figure 2 to the extent that life expectancy at birth, from direct MIS (DATASUS) and civil registry (IBGE) data, which were not corrected for underreporting, provide higher life expectancy at birth for all states, especially in the north and northeast regions of the country. In some states in the south, southeast, and central-west regions, life expectancy estimated without underreporting

correction of deaths is similar to those estimated by the Bayesian model (already corrected for underreporting). This shows that, in 2010, coverage of MIS deaths (DATASUS) in these states was already close to 100 percent. The same could not be said for civil registry (IBGE) coverage of deaths. Thus, upon analyzing the results in Figure 2, the considerable difference in coverage of deaths between the two information sources is noteworthy, especially in the state of Maranhão.

A comparative analysis with other estimates⁵⁸ shows that in 2010 in several states in the north of the country, life expectancy calculated using MIS data, with no adjustment, would be three years higher on average than when considering potential problems in recording information. To work around these data problems, various methodologies have been developed to measure mortality using direct and/or indirect demographic methods^{59 60 61} or a combination of these with Bayesian inference.⁶² In the case of Brazil, inclusion of a question concerning deaths in households within the last 12 months still stands out. This variable was included in the 1980 sample questionnaire and in the 2010 universal questionnaire, and was expected to be included in the 2021 census. Queiroz and Sawyer analyzed information quality and compared the results with the estimates obtained from DATASUS and the civil registry of 2010. They showed that the underreporting pattern by age is similar between the two sources, but MIS coverage is better.⁶³

In an analysis of the two sources of information on deaths from 1990 to 1995, Vasconcelos points out that up to that point, the quality of information on deaths would be related to the intrinsic socio-economic conditions of each state in the

country and that for much of the population, MIS data would have been a better quality.⁶⁴

A good practice to highlight, and which is clearly seen in the results of Figure 2, was an initiative by the SEADE Foundation to create a unified base of births and deaths from database relationships originating from the civil registry with databases from the MIS of the state of São Paulo. This initiative represented an important leap in quality in the production of vital statistics in the state of São Paulo.⁶⁵

In the last two decades, the quality of mortality data in Brazil has demonstrated significant progress, but with great regional variability.^{66 67} Queiroz et al. combined a series of demographic methods to assess the quality of death information in Brazil.⁷⁰ The results of Lima and Queiroz showed an improvement of mortality information in Brazilian regions between 1980 and 2010.⁷¹ For Brazilian states, there are studies that analyze the evolution of data quality. In particular, Paes⁷² and Agostinho⁷³ studied the quality of mortality data from Brazilian states for the periods 1980 to 1991, 1991 to 2000, and 2000 to 2010, and showed that there were signs of improvement, but still much regional heterogeneity.

58 Queiroz, B. L. et al. 2020. pophealthmetrics.biomedcentral.com/articles/10.1186/s12963-020-00213-4

59 Hill, K. et al. 2009.

60 Murray, C. J. L. et al. 2010. journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1000262

61 Adair, T. and Lopez, A. 2018. doi.org/10.1371/journal.pone.0197047

62 Schmertmann, C. P. and Gonzaga, M. R. 2018.

63 Queiroz, B.L. and Sawyer, D.O.T. 2012. pophealthmetrics.biomedcentral.com/articles/10.1186/s12963-020-00213-4

64 Vasconcelos, A. M. N. 2000.

65 Waldvogel, B. C. et al. 2008. abep.org.br/publicacoes/index.php/anais/article/view/1754/1714

66 França et al. 2008. academic.oup.com/ije/article/37/4/891/738704

67 Agostinho, C. S. 2009.

68 Agostinho, C. S. and Queiroz, B. L. 2010. abep.org.br/publicacoes/index.php/anais/article/download/1871/1830

69 Lima, E. E. C. and Queiroz, B. L. 2014.

70 Queiroz, B. L. et al. 2017.

71 Lima, E. E. C. and Queiroz, B. L. 2014.

72 Paes, N. A. 2005. scielo.br/scielo.php?pid=S0034-89102005000600003&script=sci_abstract&tlng=pt

73 Agostinho, C. S. 2009.



Photo: Ousmane Traore (MAKAVELI) / World Bank

Results on the evolution of adult death and mortality records coverage in Brazil show notable regional differences in relation to the spatial and temporal evolution of data quality. Results indicate a constant advance in mortality data quality in Brazil. In 2010, almost all states in the south and southeast had complete death records, as shown in the results of Figure 2. Furthermore, there has been a temporal advance in the quality of mortality information in the poorest states in the north and northeast, especially those with the worst quality in the previous period.

For both sexes, the northeast and the north showed greater progress in death record coverage in the last three decades. Regions closest to capital cities had greater coverage throughout the period. Improvements appear to be related to investments in the public health system and administrative procedures to improve the recording of vital events. Thus, the quality of mortality data appears to have improved significantly over the years and in many regions of the country. The analysis suggests that efforts by federal, state, and municipal governments to improve the quality of vital statistics in Brazil are having success and will allow a better understanding of the health and mortality

transition dynamics in the country. Continued investment in the Family Health Program may have a significant impact on improving mortality data quality in Brazil, as it works closely with the community and monitors the health status of various individuals at each location.

However, despite improvements in the quality of communicating death records, other issues still persist, such as late registration and the time of availability of death information. These issues can have a greater importance in a pandemic context, such as that of SARS-CoV-2.

Late registration of deaths and time of data availability by official platforms

Despite advances achieved by the death registration system in Brazil, it is important to highlight two relevant issues: late records and time of data availability.

The two death registration systems in Brazil, the civil registry and the MIS, have the same data collection source: the death certificate. The civil registry's death data is collected quarterly by the IBGE from notary offices throughout Brazil. Civil registry offices are responsible for the primary collection, based on a copy of the death certificate requested by the person responsible for the deceased person. Burial should officially occur only after certification that the death was registered in the notary office.

The flow of death records in the MIS, described herein, begins with the death declaration, which occurs in a decentralized manner. The death declaration is filled out by a medical professional, with primary collection under the responsibility of municipal health departments, which then send these to the state health department, which consolidates state deaths and sends them to the Ministry of Health to be entered into the MIS database.

The decentralized nature of mortality data systems is healthy for a country of continental dimensions like Brazil, but there are some delays. According to Oliveira, IBGE provides a computer program for the entry of vital statistics data.⁷⁴ Moreover, many registry offices fill in the death data using their own data entry system, so that the collection is practically all computerized. However, 10 percent of establishments, which Oliverira calls *serventias* [service offices], still collect data manually.

To speed up and qualify the process of consolidating death data, Ordinance number 20 of 03/10/2003 laid down protocols for the collection, flow, and periodicity of death data that should be entered into the MIS. In addition, as determined by a resolution of the Ministry of Health, any municipal health department that fails to load the health information systems for two consecutive months will have the transfer of resources suspended.⁷⁵ Actions like these have greatly improved the quality of death records in Brazil. However, as we have seen, there are regional differences, and improvements are needed to streamline collection. Late registration is a consequence of the system's decentralization, since not all municipal health departments in the country have the same dynamics, nor are all notaries or agencies, which are responsible for death registries, computerized.

To investigate the absence of registered deaths, the data is evaluated by the Ministry of Health, in addition to an active search program, which has been encouraged by the Ministry of Health, with the objective of recovering unregistered

deaths.⁷⁶ As a consequence, in July 2020 the last consolidated death database available in MIS was for 2018. In the context of a severe pandemic, it is necessary to use real-time data, and the solution is to use alternative databases.

ALTERNATIVE SOURCES OF DEATH DATA COLLECTION IN A PANDEMIC CONTEXT

ARPEN Transparency Portal (total and COVID deaths)

An alternative source of information on vital statistics that has gained attention and publicity in the country during the pandemic is the Civil Registry Transparency Portal.⁷⁷ Accessible since 2018 and maintained by the National Association of Registrars for Individuals (ARPEN), this portal is a publicly available website that provides certain information concerning births, marriages, and deaths. It is not an official source of vital statistics and all information from this source comes from the Civil Registry Information Centre. Collection is made via notary offices and the informant submits a death certificate to the Civil Registry Service Unit responsible for registering the death. In some cases, there is the possibility of a death being registered through a declaration made with a funeral service when death declarations are officially recorded in the region by a municipal funeral service.⁷⁸

Through this platform, it is possible to obtain death information by year, month, and place of occurrence.⁷⁹⁸⁰ Information details are summarized by total deaths, with no breakdown

74 Oliveira, A. T. R. 2018. biblioteca.ibge.gov.br/visualizacao/livros/liv101575.pdf

75 Jorge, M. H. Prado de Mello et al. 2007.

76 Szwarcwald, C. L. et al. 2014. ncbi.nlm.nih.gov/pmc/articles/PMC4070625/

77 transparencia.registrocivil.org.br/inicio

78 Chossani, F. W. 2020. arpensp.org.br/index.php?pG=X19leGliZVgub3RpY2lhcw==&in=OTQzNDc#_ftn2

79 Orellana, J. D. Y. et al. 2020.

scielo.br/scielo.php?script=sci_arttext&pid=S0102-311X2020000706001&lng=en&nrm=iso&tlng=en

80 França, E. B. et al. 2020. doi.org/10.1590/1980-549720200053

by sex or age or any information on the underlying cause of death. Death information comes from the municipal level, and mortality information for the current year up to 2015 can be obtained.⁸¹

In addition to total deaths, the portal provides information on deaths with undefined causes (with a percentage of these deaths recognized upon analysis), separated by sex, skin colour, and approximate age — something that enables studies on incomplete death information.⁸² França et al. point out that the civil registry collects information on natural causes of death by place of occurrence, in addition to a delay with major regional differences between the occurrence of the event and the registry.⁸³

With regard to information on deaths due to COVID-19, the website also provides information on this cause of death, giving special attention to COVID-19 deaths along with deaths from respiratory and cardiovascular diseases. These causes of death contain greater detail in terms of information, as these are available by municipality (in locations with greater than 50 suspected or confirmed COVID-19 cases), by sex, skin colour, and age. Information on deaths can be obtained daily for the year 2020.⁸⁴ It is worth pointing out that although the offer of tests is less than the demand, some death certificates are issued without a prior confirmation of a COVID-19 viral diagnosis.⁸⁵ In these cases, it is desirable that medical professionals certifying the death, when they suspect that the respiratory illness is due to COVID-19, state this in the death certificate.⁸⁶

In some cases, such as in the state of São Paulo, guidelines were issued for procedures in issuing death certificates in light of the COVID-19 pandemic.⁸⁷ According to these guidelines, all deaths confirmed as COVID-19 must be classified using the International Classification of Diseases ICD code B34.2 (coronavirus infection from an unspecified location). In other cases, when a death confirmed by the doctor mentions “Severe Acute Respiratory Syndrome – SARS,” or “Acute Respiratory Disease” due to COVID-19 on the death certificate, it must be classified as ICD-U04.9.

In suspicious cases, without confirmation of infection and awaiting tests, the ideal is that the medical professional certifying the death indicates suspicion of death resulting from COVID-19 on the death certificate. There are cases where the death is registered in a registry office, and the diagnosis for COVID-19 is only confirmed later (not even mentioning the suspicion of COVID-19 as the cause of death). In these cases, it is possible that such information is corrected on the death certificate by means of an annotation.⁸⁸ The annotation process must come through the interested party by means of relevant documents issued by competent agencies.

Despite the data limitations, several studies in Brazil have shown the pandemic's effect on excess mortality in mid-2020, mirroring the importance of reliable and publicly available data sources in a timely manner to better prepare health management. Several studies show that in

81 ARPEN 2020. transparencia.registrocivil.org.br/registros

82 Ibid.

83 França, E. B. et al. 2020.

84 Ibid.

85 Chossani, F. W. 2020.

86 Ibid.

87 São Paulo Department of Health. 2020. saude.sp.gov.br/coordenadoria-de-controle-de-doencas/homepage/noticias/orientacoes-para-emissao-de-declaracao-de-obito-frente-a-pandemia-de-covid-19

88 Chossani, F. W. 2020.

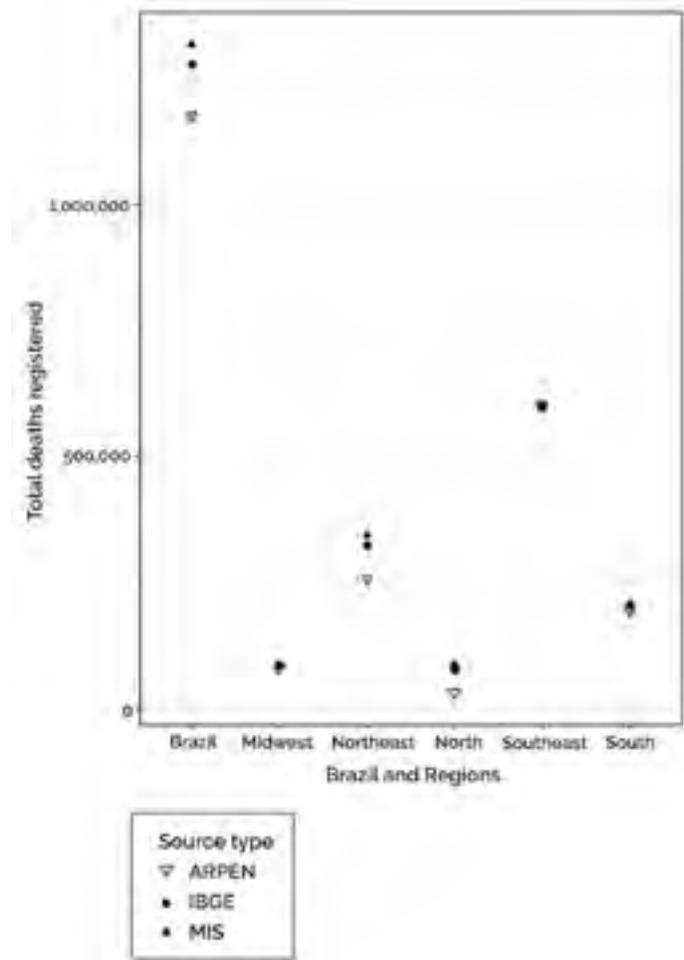
Brazil's largest urban centres, overall mortality in 2020 was much higher than that observed in 2019.^{89 90 91} It should be noted that not all excess mortality was due to COVID, but also to other causes that could have been avoided had there been no pressure on the health system. It is also possible that COVID deaths were recorded as other respiratory or ill-defined causes.

The ARPEN data has values close to the other bases in the south and southeast regions, as seen in Figure 3, but this data is more underreported than other sources. MIS data are the best in terms of coverage and accuracy, but the Ministry of Health's process takes longer and data will not be available for analysis in 2020.

The greatest advantage of MIS is that we will have more detailed and adequate information for cause of death. However, as we stressed, this condition only makes analysis more resounding, as the correction and completeness of data will make the excess deaths even more evident. It is also important that the agencies release the data as detailed as possible, by sex, age, and cause of death, so that health managers may monitor the pandemic's potential effect on the general health of the population.

The Ministry of Health also reports mortality data and only confirmed cases of COVID-19 in Brazil. Information is compiled from data sent by state health departments and is released daily by the ministry. Case and death data is updated on the date of notification. Aggregate data is released on the Ministry of Health platform⁹² and microdata can be accessed on specific ministry websites.

Figure 3: Total deaths registered in Brazil in 2018. Comparison of various registration sources.



Source: DATASUS-MIS, Civil Registry IBGE, ARPEN, 2018

89 França, E. B. et al. 2020.

90 Freitas, A. R. R. et al. 2020. doi.org/10.1590/SciELOPreprints.442

91 Lima, E. E. C. et al. 2020. doi.org/10.31219/osf.io/xhkp4

92 Coronavirus Brazil. 2021. covid.saude.gov.br/

Data sources focused on deaths and health issues during the pandemic

In addition to the Transparency Portal platform, the IBGE has carried out surveys with the objective of monitoring the increase in the number of deaths due to COVID-19. Thus, on 4 May 2020, collection by the National Household Sample Survey – PNAD COVID-19 began.⁹³

The survey is conducted by telephone with a fixed sample of approximately 48,000 households per week and a total of 193,000 households per month, covering the entire country. Households interviewed in the first month remain in the sample for subsequent months until the end of the survey.⁹⁴

The survey questionnaire has a section on health issues, with a focus on symptoms associated with the influenza syndrome. The purpose of this health module is to look into the occurrence of some of the main COVID-19 symptoms during the study reference period, thus taking all household residents into account. For symptomatic patients, further questions are targeted on the measures taken to relieve symptoms, whether they sought medical care, and the type of health facility sought.⁹⁵

The PNAD COVID-19 questionnaire is subject to change over the period of its application and the survey foresees weekly disclosures for some indicators in Brazil, and monthly disclosures by state for a broader set of indicators.⁹⁶

There is also a database called Infogripe, made available by the Oswaldo Cruz Foundation.⁹⁷ This is an initiative to monitor hospitalized cases of Severe Acute Respiratory Syndrome (SARS) and reported to the Notifiable Disease Information System. On this basis, it is possible to gather information on cases and deaths due to SARS in general, and due to SARS complications from COVID-19, according to Brazilian state, epidemiological week, sex, and age group.^{98 99}

One group of Brazilian researchers has also organized the collection and dissemination of COVID mortality and case data gathered directly from state health departments. The *Brasil.io – Especial COVID-19* portal organizes data for all states and releases daily information on cases and deaths due to COVID to all municipalities in Brazil.¹⁰⁰ Information at this geographical level is not released on a regular basis by the Ministry of Health. This portal is the only one that makes data available in open format (open data).

Following the same line of state-based information organized on pandemic impacts, the National Council of Health Departments presents mortality data from natural causes (including COVID-19 mortality) for all states in Brazil, along with an estimate of expected deaths for 2020, based on the trend observed between 2015 and 2019. This data allows for the assessment of excess mortality in Brazil in 2020 and is organized by large regions, states, age, and sex. The organization of data from the departments and the analysis of excess mortality allows the

93 IBGE. 2020b. ibge.gov.br/estatisticas/sociais/trabalho/27947-divulgacao-mensal-pnadcovid2.html?=&t-o-que-e

94 Ibid.

95 Ibid.

96 Ibid.

97 Oswaldo Cruz Foundation. 2020. info.gripe.fiocruz.br

98 Lana, R. M. et al. 2020. scielo.br/scielo.php?script=sci_arttext&pid=S0102-311X2020000300301

99 Zuvanov, A. S. et al. 2020. ipea.gov.br/portal/index.php?option=com_content&view=article&id=35643

100 Brasil.io. 2021. brasil.io/home/

assessment of the pandemic's impacts in Brazil and other regions.¹⁰¹

DISCUSSION

In this paper, we briefly introduced the two main sources of mortality information in Brazil: statistics and civil records from the Ministry of Health and the IBGE. We highlighted its origin, form of collection, main problems in terms of information quality, and finally, alternative sources that are emerging in the country during the context of the COVID-19 pandemic. Here we highlighted data from the National Association of Registrars for Individuals (ARPEN), which uses registry office death information, as well as the IBGE. Underreporting cases and delays in this latter database are apparently greater than the other two official sources studied.¹⁰²

Despite this, the ARPEN database, as well as other information sources (such as PNAD COVID-19), have proved to be important providers of vital statistics information in assisting research and health managers, especially in the stressful scenario caused by the pandemic. It is essential that this source of information be made official, similar to data from the IBGE and Ministry of Health, and be very restricted to the context of the COVID-19 pandemic. For example, using the ARPEN database, we can highlight some studies that demonstrated how overall mortality in Brazil during the first months of the 2020 pandemic was much higher than that observed in 2019.^{103 104 105 106}

It is also important to note that delays in sending death information through registry offices can occur (or even increase in the pandemic context). This is a commonly observed fact in some Latin American countries.¹⁰⁷

The existence of ARPEN data allows health managers in Brazil to better analyze the impact of the pandemic on population health and mortality. The data is constantly updated and publicly available. In other countries, the same scenario does not take place. Adjiwanou et al. point out that various middle- and low-income countries have major limitations in collecting adequate information about the pandemic's impacts.¹⁰⁸ In general, these countries already have limited or very precarious civil registry systems, and the social and economic impacts of the pandemic further aggravate the situation.¹⁰⁹ Adjiwanou et al. argue that few developing countries have adequate oversight systems in place to collect mortality information from individuals who have not been tested for COVID or deaths that occur outside of hospitals, making it impossible to adequately measure excess mortality.¹¹⁰ As such, they suggest collecting information via mobile phone surveys, which already exist in a wide range of countries and could include issues related to mortality and health in general due to COVID. One of the advantages of this approach is that there are already consolidated techniques for including pertinent questions and performing data analysis.

101 conass.org.br/indicadores-de-obitos-por-causas-naturais/

102 França, E. B. et al. 2020.

103 Ibid.

104 Freitas, A. R. R. et al. 2020.

105 Lima, E. E. C. et al. 2020.

106 Marinho, F. et al. 2020. vitalstrategies.org/excess-mortality-in-brazil-a-detailed-description-of-trends-in-mortality-during-the-covid-19-pandemic/

107 Gutierrez, E. et al. 2020. cepr.org/content/covid-economics-vetted-and-real-time-papers-0#block-block-9

108 Adjiwanou, V. et al. 2020.

109 Nsubuga, P. et al. 2010. pubmed.ncbi.nlm.nih.gov/21143827/

110 Adjiwanou, V. et al. 2020.

In the case of Brazil, the Ministry of Health has developed a mobile application that contains general health information for users of the system and that now, together with Google and Apple, will adopt an exposure notification system that grants the user information on people contacted who tested positive for COVID in the past two weeks.¹¹¹ The idea is that the system works as a means for tracking and contacting positive cases, and for controlling new outbreaks. The information will be entered into the system in a confidential and secure way for users.

Concerning the civil registry system in a broader sense, health and development challenges in the coming decades cannot be effectively addressed without reliable data on births, deaths, and causes of death, which only a comprehensive civil registration and statistics system can offer.¹¹²

Even with the significant improvements in death information collection and accuracy in Brazil during the last 40 years,^{113 114 115 116} it is still necessary to develop research that presents and demonstrates evidence on which strategies for collecting civil records and statistics work best and in which contexts. This is all to ensure that the potential benefits of this data are successfully enhanced. Furthermore, collection results need to be compiled and made available promptly and publicly to users and managers for policy, programming, and reference,¹¹⁷ something that is still problematic in the Brazilian scenario and has worsened during the COVID-19 pandemic.

A recurring problem that compromises the speed of epidemiological and demographic studies, besides health actions and policies, is related to the time of dissemination of MIS data. A good practice that could be adopted by the Ministry of Health would be to create a dual flow of information delivery in which there would be (1) unverified and uncorrected death data made available immediately to health managers and researchers, and (2) death data made available later, after analysis of the information quality.

In addition to the time of availability, another practice that could have a positive impact on death data quality would be an investment on the part of state governments to align information from the two official sources, MIS and the civil registry of the IBGE. This practice was implemented in the state of São Paulo¹¹⁸ and has had a positive impact on the quality of death information, as well as other vital statistics in this state.

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111 Ministry of Health. 2020a.

datasus.saude.gov.br/aplicativo-coronavirus-sus-vai-alertar-contatos-proximos-de-pacientes-com-covid-19/

112 AbouZahr, C. et al. 2015. pubmed.ncbi.nlm.nih.gov/25971224/

113 Paes, N. A. 2005.

114 Agostinho, C. S. 2009.

115 Lima, E. E. C. and Queiroz, B. L. 2014.

116 Ibid.

117 AbouZahr, C. et al. 2015.

118 Waldvogel, B.C. et al. 2008.

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The Burial of Unidentified People in Rio de Janeiro: The Disappearance of People in the State Bureaucracy

by Alexandre Trece, Cláudio Machado, and Raquel Chripino

INTRODUCTION

Over the past two decades, Brazil has approved legal measures such as free civil registration.¹ It has also implemented public policies² that have expanded the population's access to basic documentation – especially for the most vulnerable.³ ⁴ This has increased birth registration coverage in the first year of life from 80 to 95 percent.

Several initiatives played a key role in this achievement:

- A high-level governance mechanism was created at the national level;
- A network of committees in state governments was formed;⁵

- The creation of incentives for registration by articulating civil registration and cash transfer-based programs; and
- Civil society and communication campaigns emphasized the importance of civil registration and personal documentation to a wide audience.

The Rio de Janeiro multi-sectoral committee⁶ was set up in 2011 to implement the basic documentation policy. This policy covers human rights, social assistance, health, education, and public security. It also includes the justice system, represented by the court of justice, public prosecutors, and public defenders, with the participation of civil society.

As activities were developed, issues arose that were little known before. One of these was the high incidence of people who die with no official personal documentation and are buried

1 Government of Brazil. 1997. planalto.gov.br/ccivil_03/leis/l9534.htm

2 Beatriz, G. and Leonardos, L. 2017.

3 Basic documentation is the concept adopted in Brazil to designate the personal documents needed for people to exercise their rights. It is not to be confused with the concept of legal identity, as basic civil documentation also includes personal documents needed for access to health, legal employment, voting, etc.

4 Government of Brazil. 2007. planalto.gov.br/ccivil_03/_ato2007-2010/2007/decreto/d6289.htm

5 Brazil is a federative republic with three levels of government: federal, state, and municipal.

6 Brasileiro, T. 2017.

as unidentified persons.⁷ This situation creates problems for public administration⁸ but mainly for families, whose loved one's body is not treated with dignity. Another issue related to the burial of unidentified persons is the problem of people who have disappeared. It is often difficult to locate them because they were buried without being identified. This leads to waiting or searching with little chance of success.⁹

There are no systematic or updated national statistics on persons buried without identification.¹⁰ To diagnose the problem in Rio de Janeiro, data was collected over five years with the support of state civil registry offices. The result exposed an alarming picture.

This article deals with the issue of deaths of unidentified people in Rio de Janeiro based on the observations of the authors as professionals and members of national and state committees. They are therefore directly responsible for implementing actions aimed at resolving the issue.

This case study looks at the of State of Rio de Janeiro. It is based on a bibliographic review of previous studies, information that is publicly available in official reports, and an analysis of available data. Its purpose is to draw attention to the issue so that it may be included in the public policy agenda for citizen identification and access to basic civil documentation.

Our analysis was limited to deaths occurring in public and private organizations that are included in public health and social assistance policies. It is understood that if we improve the processes for identifying people, these cases are preventable. This article presents the solutions found to mitigate the problem.

The article is divided into four parts:

- **The burial of unidentified people as a public policy issue** – contextualizes the issue of the death of unidentified people as a public policy problem and presents the main elements of civil registration and identity system organization.
- **Deaths of unidentified people** – describes occurrences of unidentified deaths in the health system, social assistance, crime-related, prison inmate deaths, and victims of urban militia groups.
- **What has been done: Sound practices in the State of Rio de Janeiro** – presents measures taken so far to correct this problem, with an emphasis on revising regulations and the identification process at the time of death.
- **Conclusion** – presents recommendations that may help to mitigate the problem in Rio de Janeiro and nationally.

7 The term "indigent" or "destitute" is commonly used to characterize people whose bodies are buried at no charge. The authors, however, prefer to use the term "unidentified," as its meaning avoids reinforcing social prejudices.

8 National Social Security Institute (INSS). 2019. gov.br/inss/pt-br/assuntos/noticias/pente-fino-do-inss-ja-cancelou-261-mil-beneficios-com-economia-anual-de-43-bilhoes

9 Santos, J. 2020. emaisgoias.com.br/biometria-identifica-730-mortos-que-eram-considerados-desaparecidos-em-goias

10 Recommendation No. 19/2015 of the National Council of Justice created the Death Centre for Unidentified People, operated by the National Association of Registrars of Natural Persons. However, these data were not updated on the Civil Registry Transparency Portal, at least between March and December 2020.

THE BURIAL OF UNIDENTIFIED PEOPLE AS A PUBLIC POLICY ISSUE

The burial of unidentified people in Brazil is still a mostly hidden phenomenon. This gap is apparent in public policies, reflecting weaknesses in civil registration and identification systems and highlighting the lack of integration between these two systems.

In Rio de Janeiro, many cases of disappearances of persons are the result of criminal groups hiding the bodies. There is no official number of cases, but it is believed to be significant. As a serious violation of human rights, it has been receiving public attention.¹¹

However, the public administration has also been responsible for the daily disappearance of people due to inefficient identification procedures, and this phenomenon has almost no public attention. Many are buried unidentified – not because they were never identified through a public agency at some point in life, but because of a lack of integration among government institutions.

How the civil registry system is organized in Rio de Janeiro

The Civil Registry of Natural Persons in Brazil¹² is regulated by the *Civil Registry Law*¹³ under the authority of the Justice Branch. Governed by the Federal Constitution of 1988, the Justice Branch delegates the exercise of this public service to autonomous legal professionals, selected by public competition.¹⁴



The National Council of Justice (CNJ), at the national level, and the Court of Justice Internal Affairs Department in the State of Rio de Janeiro, are responsible for setting up administrative procedures and rules and inspecting civil registry services.¹⁵

Birth and death records must be created within 15 days of the event. However, late birth registration can be done at a registry office after this period has elapsed as part of regulatory changes aimed at eradicating birth underregistration in Brazil.¹⁶ The same does not happen with a civil death record: after 15 days, it can be carried out only with judicial authorization.¹⁷

An important characteristic of both registries is that they presuppose that a medical document attesting to the vital event has been submitted.

11 Cerqueira, D. 2012.

12 Legislation and organization of the civil registry system in Rio de Janeiro are shaped by federal legislation. Where there is relevant state specificity for the theme, it will be pointed out in the text.

13 Government of Brazil. 1973. planalto.gov.br/ccivil_03/leis/l6015compilada.htm

14 Government of Brazil. 1988. planalto.gov.br/ccivil_03/constituicao/constituicao.htm

15 Government of Brazil. 1973.

16 CNJ. 2013.

17 Government of Brazil. 1973.

However, in the case of the birth registration, it is possible to register a person without the birth notification document issued by the health system. This is not possible for death registration because death declarations emitted at health facilities are mandatory.

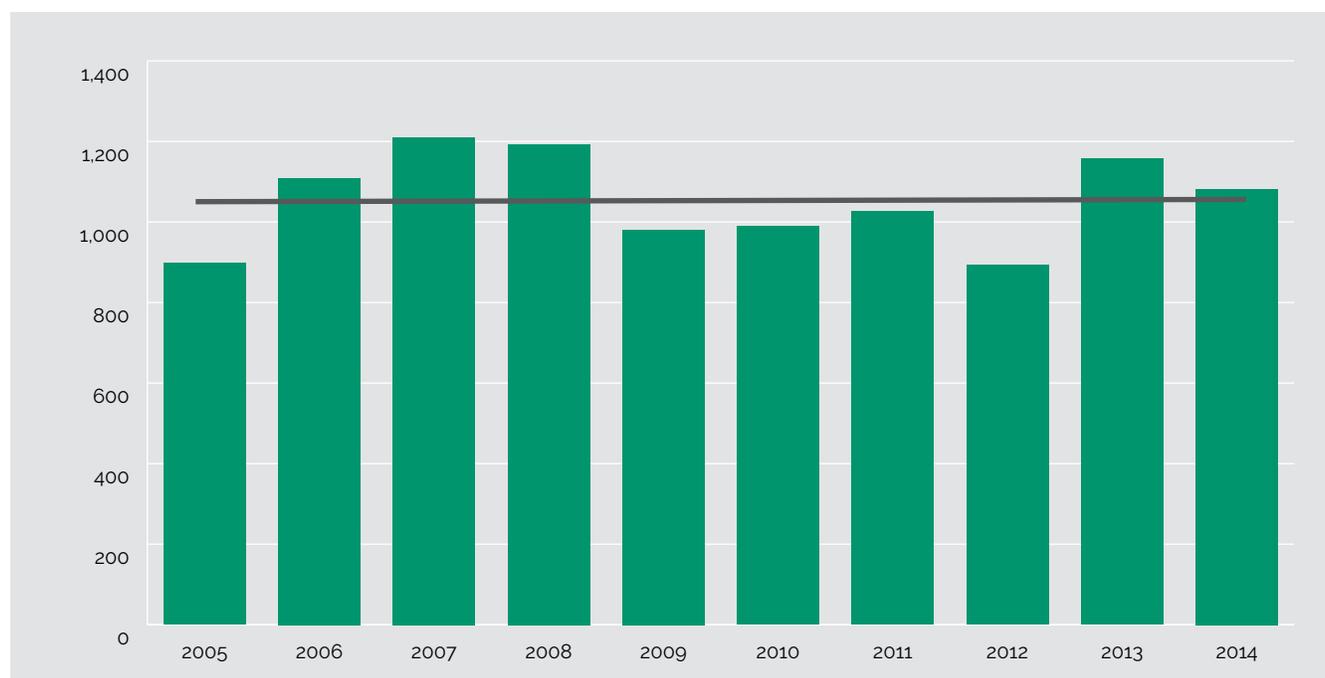
On the close relationship between the medical certificate of death and the civil death registration, one little known detail highlights the ineffectiveness of the *Civil Registry Law*. Article 81 of the *Civil Registry Law* determined the consignment of anthropometric corporal information and general description of the deceased without identification in the death registration, including fingerprints. However, this command has not been universally obeyed by civil registers.¹⁸

In 2015, Rio de Janeiro death data was analyzed for 2011 to 2015. The analysis was based on the Rio de Janeiro Internal Affairs birth and death database, which is fed by registry offices. The results indicated an average of 1,055 unidentified deaths each year.

There was a serious lack of standardization in the way deaths of unidentified people were registered. No fewer than 1,150 different ways of naming an unidentified person were used, which made data analysis extremely difficult.

In the State of Rio de Janeiro, the Court of Justice standardized the use of the term "unidentified person."¹⁹ However, at the national level, the use of various terms persists, making data on unidentified persons inaccurate.

Figure 1: Analysis of Rio de Janeiro death data, 2011–2015.



18 Government of Brazil. 1973.

19 tjrjus.br/biblioteca/index.asp?codigo_sophia=210922&integra=1

How the identity system is organized in Rio de Janeiro

Identification services in Brazil have used the biometric method for civil and criminal purposes since 1903; these are linked to public security system agencies. A person has their fingerprints recorded when they request an identity card, which is essential for accessing public and private services.

In Rio de Janeiro, two agencies are responsible for identification:

- **Detran-RJ** looks after civil identification, including managing the state biometric database and the identity card-issuing service.
- The **Félix Pacheco Institute**, linked to the Public Security Secretariat, handles criminal identification.

The Institute of Legal Medicine (IML) is responsible for technical expertise for identity recognition of persons who are not carrying identity documents.

The anthropometric measures referred to in Article 81 of the *Civil Registry Law* help officials identify deceased persons when it is not possible for fingerprint experts to confirm identity: data includes approximate height, sex, skin colour, hair type, ancestry, iris colour, photographs of the face, profile, entire body, front and back, with and without clothes, scars, tattoos, piercings, and other distinctive signs or marks. A list of the clothes and belongings that the person had right before their death must also be recorded and, preferably, photographed.

Identification databases are decentralized: each state has an official identification institute for facial and fingerprint biometrics and a forensic genetics laboratory for DNA biometrics. There are national

biometric databases for driver's licences, military personnel, and voters, but states have no access to these.

In 2012, the National Information System for Public Security, Prisoners, Tracking of Weapons and Ammunition, Genetic and Digital Materials, and Drugs (Sinesp) was created. This public security information platform was integrated into all governments.²⁰

Also in 2012, a federal law was enacted regulating the collection of genetic material for DNA profiling. It was aimed at the criminal identification of people who committed certain types of crimes: wilful crimes against life, sexual violence, etc.²¹

In terms of DNA, the Brazilian government has set up a network of Brazilian genetic profile banks incorporating all the states. However, only criminal cases are accepted, and this database cannot always be used for civilian disappearances. For example, forced disappearances or those that are not registered as police cases are not included.

The lack of integration of biometric databases between states has not yet been resolved. It is estimated that about 3 percent of people killed by violence in the city of Rio de Janeiro are identified. As a result, there is no confirmation of positive identity due to any prior biometric registration in the state.

In comparing every person's two vital events, birth and death, we find that the lack of birth registration – as serious as it may be, as it structurally affects citizenship – can be remedied through late birth registration. On the other hand, death registration, when it is not done or if it does not contain correct or complete information, creates a situation that is far more difficult to remedy in the future.

20 MJSP. 2020. justica.gov.br/sua-seguranca/seguranca-publica/sinesp-1

21 Government of Brazil. 2012b.



DEATHS OF UNIDENTIFIED PEOPLE

The Constitution of the Republic promoted the decentralization of social assistance and health. This expanded the responsibilities of local governments, thanks to an understanding that the municipality is the closest authority to the population and the one that can best meet their needs.²²

Municipalities in Brazil are responsible for issues involving death management. Municipal level management of the Unified Social Assistance System, for example, is responsible for allocating facilities for the care and treatment of vulnerable populations in institutions and on the streets. In the same way, it is up to municipalities to manage a significant part of the Unified Health System (SUS) facilities, in which 72 percent of Brazil's deaths occurred in 2018.²³

Municipalities are also in charge of coordinating cemeteries, the end point of the situation under analysis. However, as noted above, there is no

other formal assignment for civil registration and identity systems.

Deaths of unidentified people in healthcare services

The SUS is organized hierarchically: it is made up of the Ministry of Health, states, and municipalities, as set out in the Federal Constitution.²⁴

SUS users are identified in health services through the National Health Card system. This is a nationally integrated system, but it does not use biometrics.

It is common for health facilities to receive people who have no personal documents to identify them and people who have difficulty identifying themselves: they may be unconscious, have permanent or temporary dementia, have intellectual or mental disabilities, have a drug addiction, and so on.

Health services do not have access to the civil identification system that uses biometrics. Meanwhile, identification services, which are generally a police service, do not have a legally defined role in using technical expertise to identify people within healthcare services.

The Ministry of Health describes serious issues in its institutions: bodies are unidentified or are unclaimed by family members, which leads to bodies accumulating in hospital morgues. There are also cases of living, unconscious people who are left abandoned in hospitals for years.²⁵

This problem existed in Rio de Janeiro: health professionals were instructed to write up a death certificate if the family did not claim the body within 14 days, as the law states. After

22 Soares, M. and Machado, J. 2018.

23 Ministry of Health. 2020. tabnet.datasus.gov.br/cgi/deftohtm.exe?sim/cnv/obt10uf.def

24 Government of Brazil. 1988.

25 Ministry of Health. 2018. antigo.saude.gov.br/noticias/svs/43998-diagnostico-da-cao-da-morte-e-qualidade-do-atestado-medico-sao-temas-de-oficina-para-multiplicadores

this period, a legal permit for burial is required, making the procedure much more complex and time consuming.

This is what now takes place in Rio de Janeiro, but there is still a lack of integration between health and public security services in identifying the bodies of people who arrive at service centres without documentation and with social assistance for communicating with families.

The Case of Rose

The case of Rose (not her real name) reveals how complex the problem is and its devastating effects on families. Rose left her home after her husband's death, leaving her two children to be raised by her sister Lucia. Rose was considered missing; eventually, the Rio de Janeiro Public Prosecutor's program for missing persons²⁶ informed her family that after 12 years of searching, she had been located, but she had died.

Rose was identified at health services, and the civil police had a record of her disappearance, but no one contacted her family. Usually, when the family does not claim a body, the person is buried as destitute. However, Rose's body was donated to a medical school for use in classes and research. A three-year process unfolded for the family to recover her body and bury her according to her religious beliefs.

Despite this long and painful process, Rose's case had a successful outcome, in that her family was able to locate and bury her. Thus, Rose was taken off the list of missing persons.

The same difficulty in relation to unclaimed bodies occurs in IML centres. In 2017, a crisis erupted in the Rio de Janeiro IML: 180 unclaimed bodies occupied all the available space in mortuary coolers, waiting for court orders to be issued for burial. A team that included several judges was created to clear up the identification and status of each body and authorize burial.

Rio de Janeiro's experience in reviewing procedures for the burial of unidentified persons or those whose bodies are unclaimed is presented in the next section.

Deaths of unidentified people in social assistance facilities

Municipalities maintain social assistance facilities that serve vulnerable people, in keeping with the rules of the *Organic Law on Social Assistance in Brazil* (Law 8.742/1993), which establishes the Unified Social Assistance System. These facilities serve many undocumented people in Brazil: being undocumented is common among the poorest, such as vulnerable elderly people, people with mental and intellectual disabilities, drug addicts, and the homeless.

To support the management of social assistance policies, the Unique Registry for Social Programs (CADÚnico) was created. It aims to identify and characterize individuals in its policies.²⁷

Social workers at these institutions have a lot of trouble documenting people, as many are migrants from other states who have lost their birth certificates in floods or in fires at their new homes. It is also common for people to lose certificates or identity cards due to street violence.

26 MPRJ. 2018. mprj.mp.br/documents/20184/748003/relatorio_plid.pdf

27 Bartholo, L. et al. 2018. ipea.gov.br/portal/index.php?option=com_content&view=article&id=32758

One factor in the increase in the number of vulnerable people not identified in these facilities is the lack of awareness by social assistance professionals about the importance of civil registration, civil identification of persons, and administrative registries. Even when this knowledge exists, it can be difficult to access government records and copies of identity documents. This contributes to residents remaining "nameless."

Another underlying fact is that social assistance facilities and civil identification services in Brazil are not integrated. This means that social assistance professionals, even when they are aware of the law and the need to confirm the identity of a deceased person, cannot get help when an admitted person or resident dies of natural causes. These bodies are simply taken away for burial, with no intervention from the civil police's specialized technical teams to identify them.

Deaths of unidentified people due to violence

Unidentified deaths resulting from crime are the most complex for public policy. Anyone whose death is caused by violence is protected by the structures the police have in place: a forensic autopsy must be performed to determine the cause of death. The police investigation thus confirms the consequences of the violent act – the person's death.

In Rio de Janeiro, as well as in other states, this work is done by coroners or police force employees. All bodies are taken to the IML, where they are examined.

In this forensic unit, although the name of the murdered person may already be known due to a statement from family members or informants, or from a police investigation, specific forensic work

is done with the deceased person to verify or confirm their identity. The goal of this examination is to determine who died. The most used method is a search and comparison fingerprint analysis using civil or criminal identification databases.

This expert report – as well as serving as technical evidence for the investigation and, later, for the criminal judicial process – authorizes that the victim's correct and verified name be registered on a death certificate and in the death registration. The death registration publicizes the death and allows for hereditary rights, inheritance, annulment from punishment, extinction of criminal proceedings, cessation of social security payments, and other effects. Then a paradox takes place: the murder victim appears in the Rio de Janeiro database as a deceased person, but remains "alive" in the state database that issued their identity document. It could also be a person whose family was searching for them: a missing person in São Paulo who appeared in Rio de Janeiro, now deceased, who disappeared due to a lack of policies for integrating biometric databases within Brazil.

Unidentified deaths in prisons

For decades, Rio de Janeiro has seen cases of people who are wrongfully imprisoned due to difficulties in identifying compliance with arrest warrants. The institutions involved had not studied this issue until it came to the attention of the Committee for the Eradication of Under-Registration and Access to Basic Documentation and the Monitoring and Prison Inspection Group of the Rio de Janeiro State Court of Justice.

In 2014, data revealed that around 12,000 people – close to 30 percent of those arrested at the time – were imprisoned in the State of Rio de Janeiro without being properly identified.²⁸

²⁸ Data extracted from SIPEN: Rio de Janeiro Penitentiary Identification System.

At least one third of this number did not have their biometric data properly filed in the security system: they had not gone through a criminal identification procedure. When someone was arrested, they could give another person's name; that name would be recorded as the person responsible for a crime until the time of possible criminal conviction through sentencing.

The committee pointed out the source of the problem: there was no expertise to confirm identity at the time of arrest, at the police station, or in prison. Was the right person being arrested? Was the one sentenced by the judge actually serving the sentence?

Proper diagnosis of this issue was closely related to prisoner identification. There were repercussions on people's lives, including death itself. This is a serious problem in the State of Rio de Janeiro prison system and is the subject of a complaint in the Inter-American Human Rights System. In some cases, the families of prisoners have never heard of their relative's incarceration or of their death.

Unidentified death caused by militia groups

The most serious scenario regarding the death of unidentified people is related to the involvement of militia groups in the forced disappearance of people. The growth of militia groups in Rio de Janeiro led to the creation of a Parliamentary Commission of Inquiry (CPI) in the Legislative Assembly.²⁹

Researchers define militia groups as armed groups composed of public security agents, ex-agents, and people drawn in from disadvantaged communities, including ex-traffickers. These



groups use force and terror to dominate a given region and illegally exploit the activities of alternative transport, gas, and cable TV.³⁰ These criminal organizations set up a network of corruption and influence along with police forces and the judiciary; they also build relations with governments. At the same time, they oppress the residents of the dominated region.

One of the policies these groups use to maintain power is the elimination, by killing, of people who challenge their illegitimate powers or refuse to pay a fee, a crime tax, so they can continue to carry out their commercial activities in the dominated region.

Deaths caused by militia groups can be considered enforced disappearance, as they have the same characteristics as deaths caused by dictatorships: people are forcibly removed from their home or workplace and murdered, and their bodies disappear.

29 CPI on Militia Groups. 2008. marcelofreixo.com.br/cpi-das-milicias

30 Araújo, F. 2014.

The Case of Walter³¹

Walter lived with his mother and four brothers in a community on the north side of Rio de Janeiro. During his adolescence, he became involved in the local drug trade. He had since left the world of crime and was working in a government social project. He had a 3-year-old son.

When a militia group moved in to take control of his neighbourhood, some friends suggested that he move somewhere else. However, along with his mother, Maria, he introduced himself to the militia chiefs to explain that his involvement in crime was behind him and he had been allowed to remain in the neighbourhood.

After a time, a conflict between groups of traffickers and the militia group drove the latter away. Control of the neighbourhood was left to the group of rival traffickers to which Walter had belonged. Amid circumstances that were not well explained, he disappeared.

His mother made every possible effort to locate him, but the news on the street was that he had been killed. She then proceeded to locate her son's body so she could bury him and apply for social benefits to help her raise the son Walter had left behind.

Walter had been beheaded; Maria managed to recover only her son's head. His body was never found, but after a long administrative process with public security agencies, a DNA test was done to prove his identity. However, even with the positive result that proved kinship, Maria was not able to register her son's death with the civil registry.

Walter's case is an example of enforced disappearance in which it was not possible to verify identity to prove a person's civil identification and death.

WHAT HAS BEEN DONE: SOUND PRACTICES IN THE STATE OF RIO DE JANEIRO

The issue of deaths of unidentified people and the civilian disappearance of people is a recent theme for public policy. In Rio de Janeiro, some steps have been taken to resolve the problem. Some of the practices adopted are presented and discussed in this section.

Creation of the Task Force on Deceased and Missing Persons

In 2014, the state committee, Rio de Janeiro Task Force on Deceased and Missing Persons, was created to understand and find solutions to the problem of burials of unidentified people.

Since the task force was created, it has held regular monthly meetings. Representatives from various government sectors and civil society participate along with invited experts. The objective is to map the death flow, diagnose difficulties in the process, propose pragmatic solutions, and support managers in shaping public policy.

31 Case report taken from Araújo, F. 2014.

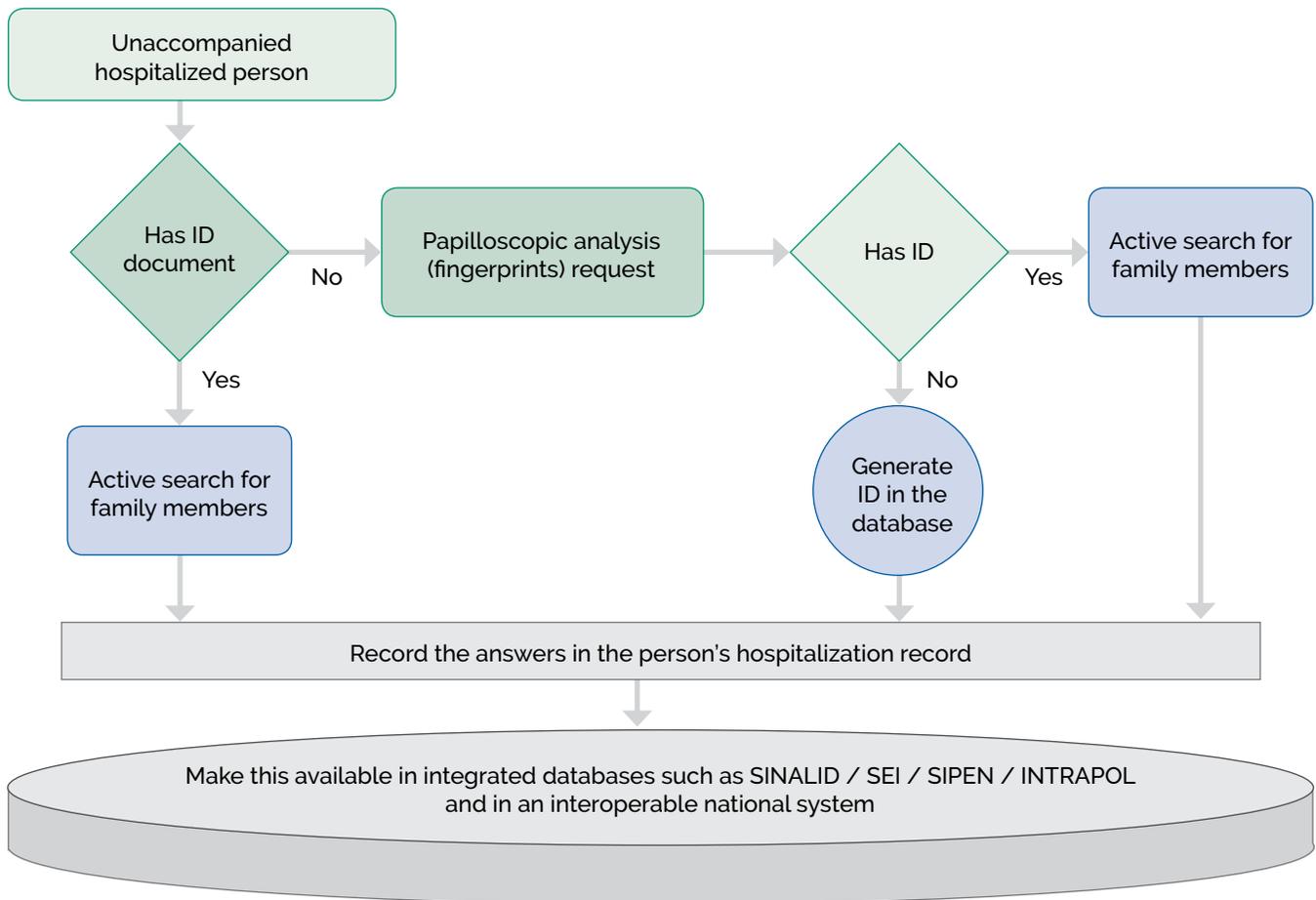
A long process of collective learning and sharing of activities developed within these organizations. At first, each group member shared their experience on the topic with others, describing their protocols and the difficulties they faced. In this way, they arrived at a diagnosis that identified point by point the errors leading up to the non-identification of deceased people and the repercussions of failing to solve missing persons cases. This section presents the task force results to date.

New protocol for persons at healthcare units without identification

An experimental protocol was needed for integration between the healthcare facilities and the civil identification service.

New protocol

- Healthcare units must ascertain identity as early as possible when a hospitalized person is unable to communicate, has no official identity document, or the document presented does not confirm their identity.
- When in doubt about the patient's identity, the hospital must call the Public Identification Service Fingerprint team to photograph, collect fingerprints, and carry out identity verification in the civil and criminal, analogue, and electronic biometric systems (ABIS).
- If fingerprints exist in the database, an identity number is attached. This key reveals biographical data of the patient based on civil records (such as birth): name, age, sex, photos, parents' names, addresses, phone numbers, and other registration data, including those of a criminal nature.
- The civil identification service has access to the patient's relationship network and various justice and public security system databases. It conducts an active search so it can contact family members to inform them of what has happened to their relative, verify if there is a missing persons record for them, and find out if the person is a fugitive or is wanted by the justice system.
- Investigation results are sent to the healthcare unit within 24 hours, including whether a family member has been located and if contact has been made.
- When fingerprint research is inconclusive and a patient's identity cannot be verified, the collected biometrics (facial and fingerprints) are entered into the ABIS database. A numeric hash and flag (alert) is added to show that the person has not been registered in these databases before and the declared data have no support from prior civil registration. These biometric data remain in the database so they can eventually be listed as candidates for further research.

Figure 2: Diagram of the new identification flow in hospital deaths.

The same protocol was adopted for people who die in a healthcare unit. The difference is that the team of experts that goes to the site has exclusive expertise in fingerprinting cadavers.

In 2018, a joint resolution signed by civil and criminal identification services and the Health Secretariat agreed to issue a standard procedure and define the competencies of each organization for living people or for those who die in hospitals, shelters, long-term care units, as well as homeless persons. This approach institutionalized the new procedure.

This protocol of triggering an investigation in the health system to confirm identity resulted in the following outcomes:

- From April 2018 (when the new procedure was implemented) to April 2019 (the date of the report that the civil identification services prepared and submitted to the Task Force on Deceased and Missing Persons), 421 identifications were made: 286 of these were living patients and 135 were deceased persons.
- Of the living, 12 had open missing persons files and 6 had outstanding arrest warrants. Of the deceased, 4 were missing persons and 1 had an arrest warrant.

The Case of Marcos

Marcos (a fictitious name), age 21, had a cognitive behavioural deficiency. He left his home in Duque de Caxias, a city in the metropolitan region of Rio de Janeiro, and did not return for two days. His father did not immediately report his son's disappearance, as he "had often done that and always returned; he never went very far." This time was different: Marcos remained in an unknown location for three days.

Meanwhile, in Penha, a neighbourhood in the city of Rio de Janeiro, a young man who was disoriented was admitted to hospital after the police picked him up at a bus stop. He was not carrying any identity documents. The protocol was triggered: his fingerprints were taken on the same day as he was hospitalized. After Marcos' identity was confirmed, the family was contacted by phone and informed that Marcos had been admitted to hospital.

Marcos' father went to the hospital. There he was told that no one with Marcos' name was there and that "there was no such thing as identifying people." Upset and frustrated, the father called the civil identification services. The professional who answered him not only confirmed the fact but contacted the hospital administration to ensure that the protocol was fully complied with: that is, that the patient's medical record would be updated with his real name as noted in the expert report the hospital had received. The hospital director was told that Marcos' father was returning and that he should be taken to see his son, which eventually happened.

A public policy, once it is implemented, needs to be monitored until the various stakeholders have integrated it in their processes. If Marcos' father had not complained to the person who gave him the information, the meeting between father and son would likely never have taken place. The investigator would have imagined that he had fulfilled his role, and the father would still be searching for his son. If Marcos had died, he would probably have been buried as an unidentified person. The family would not have been able to mourn and could have spent years looking for him, and another person would have had his death non-identified due to the lack of integration between public agencies.

A standard for nameless persons

Given the significant number of death records per year for unidentified people, the State of Rio de Janeiro Court of Justice – motivated by the Task Force on Deceased and Missing Persons – created a naming standard for "nameless" people: those whose death record was made without identification.³² This standard states that, when a civilly unidentified person dies in a hospital or

other public institution, or is found accidentally or violently killed, the officer must immediately record the civil name of the deceased as "unidentified person," even if the death certificate uses a different expression. This standardization makes it possible to monitor the statistical data of unidentified people in the state and avoids the shame of using stigmatizing or undignified names, which used to be common in civil death records.

32 TJRJ. 2018. tjrj.jus.br/biblioteca/index.html

Identification of people in the prison system

We applied the same strategy to another area in which data on the registration of persons is sparse or non-existent: the prison system. The solution was to verify the prisoner's identity as soon as they enter the police detachment. This used to be the last thing done, if it was done at all.

The Rio de Janeiro police computer system was modified to transmit gathered fingerprints electronically on live scanners so the Identification Institute could do the investigation. Test results are returned via the intranet. The prisoner's identity is listed on their criminal record before the case is forwarded to the court.

After six months of doing fingerprinting when people arrived at police stations, the rate of unidentified prisoners dropped to less than 2 percent. For prisoners inside the prison without a confirmed identity, a team was set up to collect fingerprints and forensics.

This model would result in benefits if applied to other states of Brazil: it guarantees basic human rights, such as the individuality of sentences (i.e., the right person being sentenced once their identity is confirmed), prison health, clearing registered visitors, linking of disciplinary reports, guaranteeing the changing of prison regime, and prisoner safety (this is especially important in Brazil, where there is evidence of powerful internal criminal factions in some prisons).

Missing Persons Location and Identification Program

In 2010, the Public Prosecutor's Office of Rio de Janeiro created the Missing Persons Location and Identification Program (PLID). The objective was to gather data from the various agencies involved in locating missing persons. These agencies contributed by sharing databases and expertise in link analysis to locate family members of patients who had been reported missing outside the police system.

PLID consolidates information on missing persons, institutionalized persons, and discovered bodies. According to a program analysis carried out in 2018, 10,128 cases were recorded: 78 percent were missing persons, 21 percent were discovered cadavers, and 1 percent were institutionalized people.³³

The Federal Public Prosecutor's Office, inspired by the successful Rio de Janeiro program experience, which was also done in other states, created a national integration system.³⁴ It promoted setting up this program where it did not exist. Because it is a cooperative system, it is collaborative and supportive. It features efficient link analysis logic for missing persons cases, including bodies with no confirmation of identity, whether through violent death or otherwise. This system has a wider scope; it is not limited to police cases.

The Rio de Janeiro Public Prosecutor's Office began a civil investigation: the aim was to create a system to notify family members of unclaimed identified deceased persons in public institutions and other public agencies in the city of Rio de Janeiro.

33 MPRJ, 2018.

34 cnmp.mp.br/portal/institucional/comissoes/comissao-de-defesa-dos-direitos-fundamentais/sinalid/informacoes-sobre-o-sistema

CONCLUSION

Federal Law 13.812/2019 was enacted in 2019. This law instituted the National Policy to Search for Missing Persons. It provides definitions, indicates that a national database with branches in the states has been formed, establishes the sharing and integration of systems as management tools, and importantly, gives priority and urgency to searching for and locating missing persons.

It is understood that any policy for locating missing persons needs to be articulated with citizen identification policies, including deaths, and with expanded access to basic documentation. The secure identification of people is essential for locating missing persons.

Based on the experience of the Rio de Janeiro multisectoral committee, some recommendations can be made. These can contribute to effectively implementing the mechanisms provided for in the above law at the national level and by other states that face similar challenges related to the death of unidentified persons.

1. **Create a national identity database covering the entire population that is linked with state identity databases.** The lack of a national database and the lack of access by states to existing federal databases compromises all efforts to improve the identification process to avoid cases of burial of unidentified people.
2. **Implement the National Council of Justice's national standardization of death registration of unidentified persons,** including express direction that civil registry databases be audited. This would mean better quality data and guarantee access to data by public organizations.



3. **Implement live birth and death certificates in electronic format,** making it possible to shorten the time between preparing a declaration and entering this data into the civil registry system so administrative agencies that work with locating missing persons can consult it. The electronic death certificate will also make it possible to better characterize persons: it will allow the collected information to be expanded, especially on the identification of deceased persons.
4. **Develop a strategy for training and continuous awareness raising by state committees on the topic of deaths of unidentified people.** State committees are made up of public agents (health, public security, justice, and social assistance) who can act in a unified way to minimize the issue.

Some families suffer for many years during the sometimes impossible search for their loved ones who may have been buried as unidentified persons. In this article, we summarize the accumulated learning in taking action to minimize the suffering of families who have missing loved ones. We also note that this action can reduce social policy and security fraud.

The authors wish to thank all participants in the Rio de Janeiro Task Force on Deceased and Missing Persons, especially all the families who shared their experiences. Families are the main actors in raising public awareness on the importance of a national missing persons search policy.

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and Raquel Chrispino**



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Strategies for Dealing with the Challenges of COVID-19 to Ecuador's Civil Registration System

by Vicente Andres Taiano Gonzalez, Gustavo Pedroso de Lima Brusse, and Vinicius Souza Maia

INTRODUCTION

Early on, Ecuador was one of the countries most affected by the coronavirus (COVID-19) in South America. It had a high concentration of cases in the city of Guayaquil, in the province of Guayas. On 12 March 2020, the Ministry of Public Health declared a state of emergency in all parts of the national health system: this affected laboratory services, epidemiology and control units, air ambulances, medical and paramedical services, and hospital and outpatient services. The government warned of the imminent possible appearance of COVID-19 and tried to prevent large-scale spread of the virus among the population. Through Executive Decree No. 1017, dated 16 March 2020, the president declared emergency rule and a curfew throughout the national territory.¹

Death records initially peaked at around 6,700 in the first 15 days of April (the monthly average for Guayas is 1,800 to 2,000 deaths). The provinces of El Oro, Pichincha, and Manabí followed, but with considerably fewer deaths recorded during the same period. With intensive care units full and an

increase in deaths in Guayas, funeral homes were unable to cope with the high number of deaths at home. It quickly became clear that there was not enough forensic medical staff to handle the high and sudden demand for the collection of bodies and registration of deaths. The government created a task force to expand efforts in Guayaquil to meet this demand. The General Directorate for Civil Registration, Identification and Certification (DIGERCIC) worked closely with the task force to obtain death registration data in real time; it also had its workers go inside funeral homes to ensure quicker and more efficient access to the service.

The emergency situation caused by the pandemic directly affected the basic principles that underlie the country's civil registration and vital statistics (CRVS) system, such as

- its statistical role — the ongoing registration of civil acts and events, which allows for the inflow of data to generate statistics; and
- its social role, ensuring access to basic human rights.

1 Garcés, L. M. 2020. defensa.gob.ec/wp-content/uploads/downloads/2020/03/Decreto_presidencial_No_1017_17-Marzo-2020.pdf

The timely registration of births and deaths has been a challenge during the pandemic due to increased socioeconomic, cultural, and geographic barriers: social distancing and restrictions on movement within and between cities and provinces affects the most remote populations as well as those who live in poor urban areas. Other factors at play are economic recession and the feminization of home care activities, among others.

In this context, the CRVS system needs to be resilient² by introducing protocols based on current legal regulations that allow for public needs and demands to be met in a timely manner. Having solid and reliable data makes it possible to enhance development policies and to identify needs to improve planning, monitoring, and follow-up.

This paper presents the emerging response of Ecuador's CRVS system to the COVID-19 pandemic since March 2020. It also highlights the main strategies that were put in place to guarantee that its operations would function so that civil acts and events could be registered during the health emergency.

ANALYSIS

Challenges that the pandemic posed to operating the civil registry

In normal times, a civil event is registered in person at a DIGERCIC office using a set process. Before Ecuador's civil registry was modernized, which began in 2008, the process was overly bureaucratic. Users had to submit many documents and go to several appointments. The infrastructure was precarious, and not enough staff were available to deliver the service.³

Because the system was poor, dishonest operators set up corruption schemes.

Users were very dissatisfied with the service. There was a lack of timely access, and getting documents was costly, especially for the most vulnerable populations.

In 2008, an agreement was reached between the Inter-American Development Bank and the central government. After a long restructuring process and large-scale investment in the CRVS system, many of these problems were solved or greatly reduced.

With the arrival of the COVID-19 pandemic, it was not possible to provide ongoing in-person services. Emergency measures were put in place thanks to innovations in the system over the last 12 years.

Several intermediate steps in the process had to be reviewed and adjusted. Normally, a death registration that had been certified by a doctor had to be filed by someone on behalf of the deceased at the civil registry office. There the registration was finalized and documentation was issued. With the need for social distancing, this process became too risky. Registration activities had to be adapted to the situation: the focus was on minimizing risk exposure by health professionals, family members, and DIGERCIC officials.

The way the offices operated also needed to be reviewed. The offices face high daily demand, with dozens or even hundreds of people gathering every hour at DIGERCIC facilities for bureaucratic procedures. Given the pandemic, each service had to be re-evaluated based on infection levels in each territory.

2 Here, resilient is understood as an institution's capacity to maintain its operations in times of crisis and disaster and to return to normal operations without qualitative losses or significant post-crisis structures. Resilience is different from resistance or reaction to processes of institutional change that are caused by an institution's development because of political will to transform its means or objectives. ecologyandsociety.org/vol20/iss4/art23

3 Inter-American Development Bank. 2018. dx.doi.org/10.18235/0001286

Essential registration processes, mainly births and deaths, were given temporary priority. This meant a temporary interruption of other services, such as registering marriages and divorces and issuing identification papers. These services were gradually restored as the epidemiological situation of each territory improved.

Another aspect that was especially relevant for CRVS systems was providing the necessary data so the pandemic could be managed using statistics, open public communication, and government transparency. Thanks to the information collected and the daily updates on the country's health situation, appropriate decisions and measures could be taken.

One of the most important characteristics of the CRVS system is continuous and permanent operation: this allows certain recurring tasks, such as renewing documents, to be done over and over again. As travelling to government offices for bureaucratic reasons during a pandemic is not advisable, internal administrative measures had to be taken to provide concrete solutions to the public.

The short-term challenges that the need for social distancing posed were only part of the issue. It was clear that the continuity and quality of the country's CRVS services were linked to structural issues. For this reason, various measures taken before the pandemic, as the system was modernized, played a key role when it came to the system's capacity to respond to issues caused by the pandemic. Some of these measures include implementing the online civil registry system (REVIT), digitizing services, and introducing mobile teams to bring services closer to the public. Emergency measures could be built on these medium- and long-term initiatives and will remain as a resource in Ecuador's CRVS system in the future.

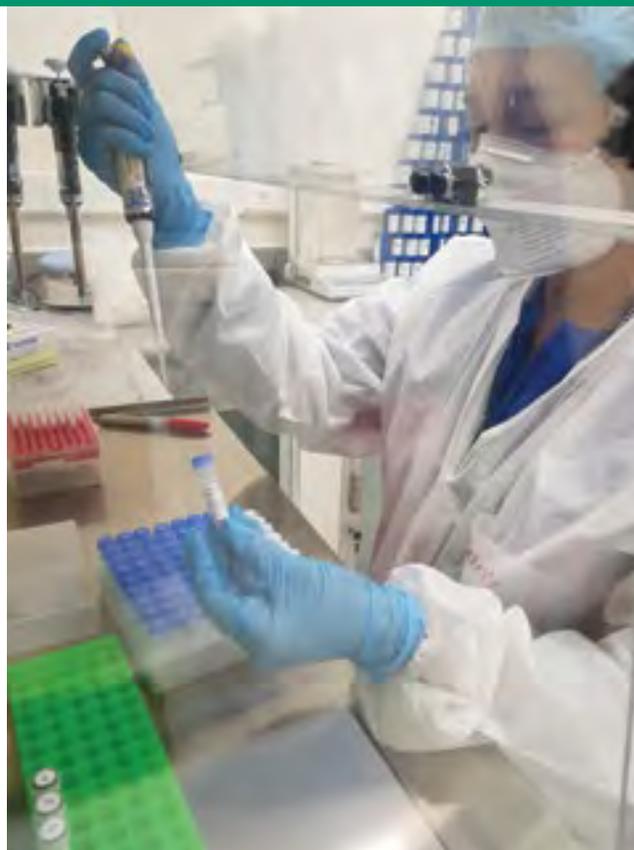


Photo: National Institute of Public Health Research (INSPI)

Deaths from COVID-19

Death registration is the primary act that takes place once a person has died; it marks the closure of the legal identity process. In Ecuador, this happens based on the statistical death form that is signed by the competent authority. Outside the country, the medical certificate of death is required for registration. An ordinary death registration is one made within 48 hours of death. If this time elapses, the regulations call for an extraordinary death registration.

Until 2016, these paper documents were filled out in person in a civil registry office and then sent to the National Institute of Statistics and Censuses (INEC) for statistical purposes. Once the REVIT digital registry was in place, the process changed. Deaths reported in health facilities involved other state agencies in addition to DIGERCIC, such as health and safety institutions as well as INEC. This meant increased coverage, better quality records, and more timely results.



Photo: Juan Ordonez / Unsplash

Records are created in digital format in health institutions and then sent to DIGERCIC for processing and to INEC for immediate statistical updates. In the past, members of the public had to go to an office to fill out paperwork and obtain the final document.

The emergency situation created by the pandemic meant that the part of this process that was normally done face to face at DIGERCIC offices had to be done online. To ensure that the information is high quality and authentic, each submission goes through an internal review process before the registration is done or any documentation is issued; the applicant may need to provide more documents or review their application so it meets all the legal requirements. At the end of the process, the applicant can retrieve the final document electronically from the DIGERCIC website.

Attributing the cause of death involves identifying and interpreting what the doctor or authorized

staff who certified the death reported. This is done after the information is received and the INEC form is filled out. On 25 March 2020, the World Health Organization published the emergency ICD-10 code for COVID-19.⁴ The new code was used for those who died after a confirmed diagnosis and for suspected or probable cases; the cause certified by the doctor or authorized person appears as "presumed COVID-19" and/or "respiratory diseases" for those who died after having symptoms similar or related to COVID-19 but who had not had a test confirming the diagnosis.

Considering all the causes of death, the peak was recorded in April 2020 in the province of Guayas. A large proportion came from Guayaquil: there were 815 deaths in Guayas on 4 April, for a total of 12,139 deaths in April. Compared with the death rate for the same period in 2019, the difference is 84.64 percent.⁵

In general, the most affected areas were the Costa and Sierra regions, as shown by data recorded up to the month of August. The Ministry of Public Health published this data as part of an update on coronavirus cases in Ecuador.⁶ The situation in Guayas began to return to normal in May, with a large decrease in the number of deaths. In June, the numbers finally reverted to normal levels, showing 1,819 registered deaths. A domino effect took place in nearby provinces, with the same trend observed in the Costa region (Figure 1). The same was not true in the Sierra-Centro region, where there was an increase in deaths from all causes. The province of Pichincha showed an increase of 40.43 percent compared to the same period in 2019.

4 Pan-American Health Organization. 2020. paho.org/arg/index.php?option=com_docman&view=download&alias=468-covid-cie-codigos-2020-03-25-espanol&category_slug=documentos&Itemid=624

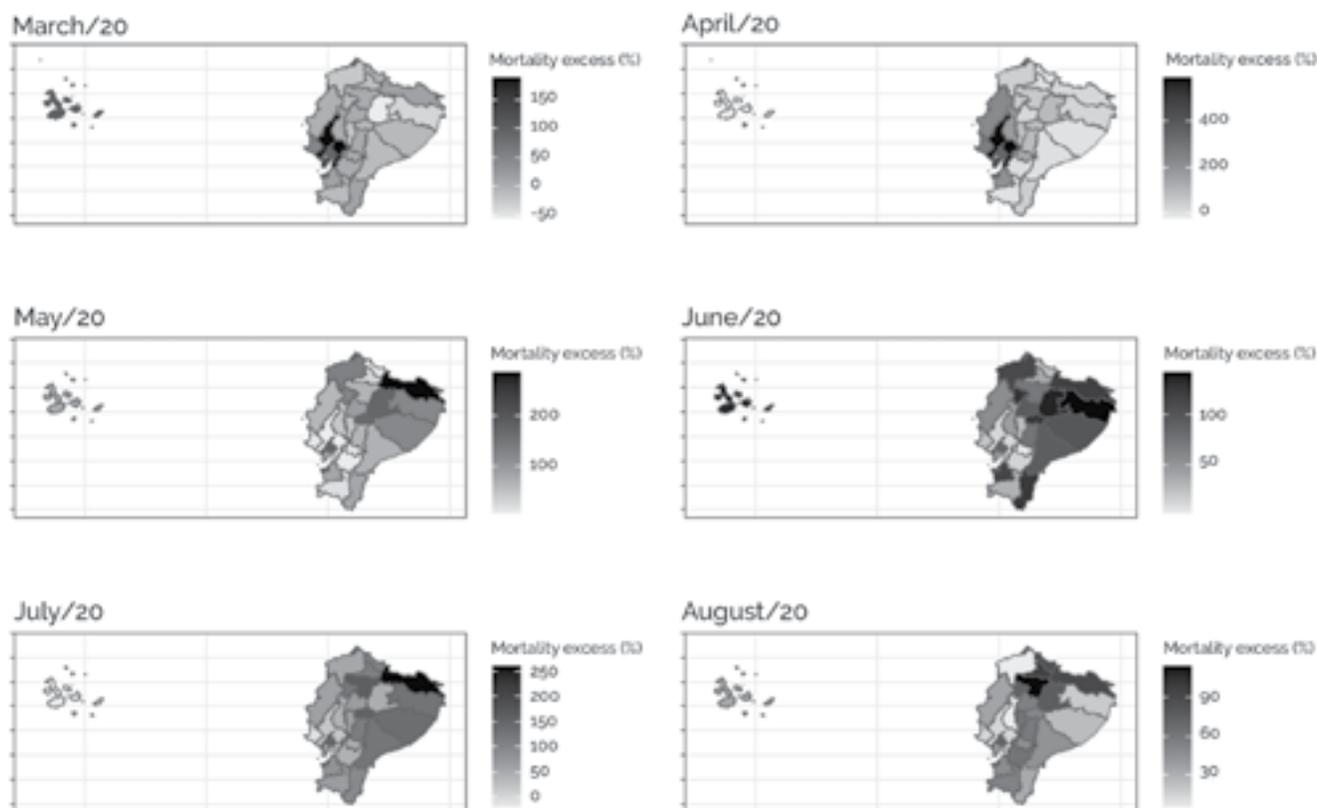
5 DIGERCIC. 2020a. registrocivil.gob.ec/cifras

6 DIGERCIC. 2020b. registrocivil.gob.ec/wp-content/uploads/downloads/2020/10/protocolo_reanudacion_de_servicios_v_2.0-signed_asg30092020.pdf

Other provinces that showed an increase in the death registration index for deaths from all causes in April were Santa Elena with 90.26 percent, Manabí with 65.74 percent, and Oro with 65.28 percent more deaths than were registered in the same period in 2019 (information up to 15 July 2020).

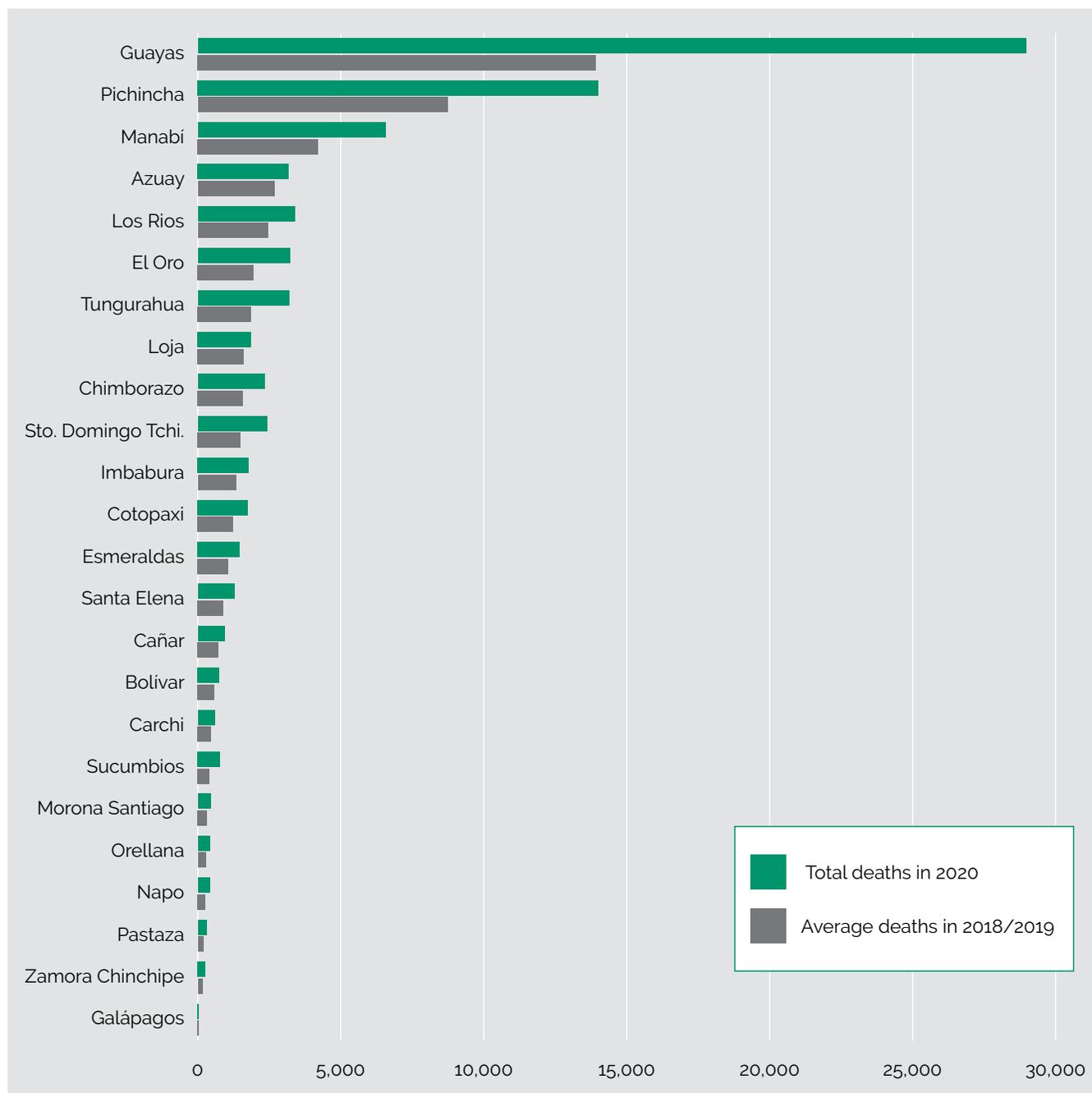
Figure 2 shows the total number of deaths in 2020 for each of Ecuador's provinces (1 January to 31 August) compared to the average number of deaths in the same period in 2018 and 2019. Figure 3 shows the monthly distribution of deaths for the entire country, with the number of deaths peaking in April, as shown.

Figure 1: Excess deaths in Ecuador (%) during the pandemic compared to the average of 2018 and 2019 (1 January to 31 August).



Source: General Directorate for Civil Registration, Identification and Certification (DIGERCIC), 2020

Figure 2: Total deaths in 2020 by province (1 January to 31 August) compared to the average number of deaths in the same period in 2018 and 2019.



Source: General Directorate for Civil Registration, Identification and Certification (DIGERCIC), 2020

Figure 3: Total deaths in Ecuador by month in 2020 (1 January to 31 August) compared to the average number of deaths in the same period in 2018 and 2019.



Source: General Directorate for Civil Registration, Identification and Certification (DIGERCIC), 2020

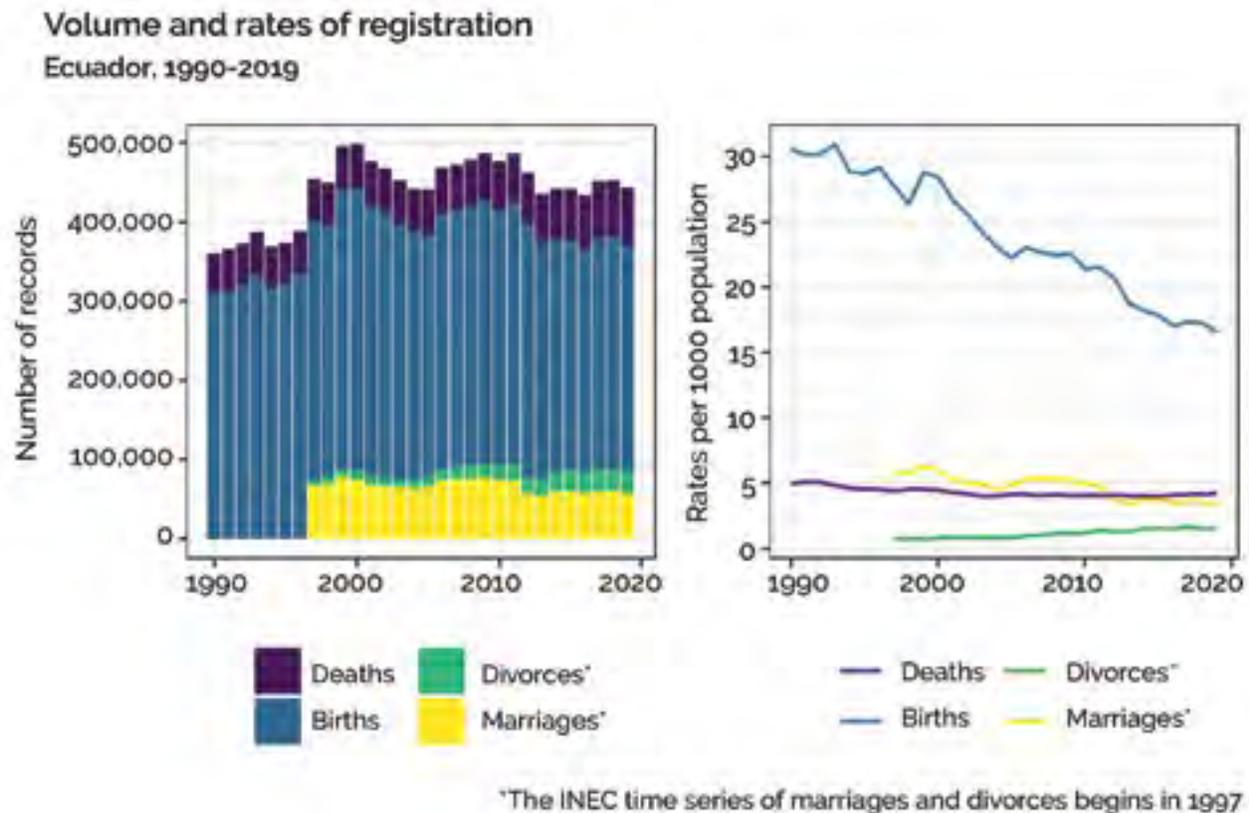
Demand for registering civil acts and events in Ecuador by region

As seen in the previous section, the pandemic affected the country unevenly. However, the quality of CRVS services in the country as a whole seems to be linked to demographic and structural issues. Regional populations show important differences, both in number and in age structure. This directly impacts demand for registering civil acts and events. A large part of the country's population is concentrated in the Costa (52.5 percent) and Sierra (41.9 percent) regions, with a significant part living in the Amazon (5.1 percent). Only about 0.4 percent of the population lives in island regions (Galapagos) and in remote areas that are excluded from the figures.

Today, Ecuador is at the intermediate stage of demographic transition. Its population is growing at a slower rate (less than 2 percent) but still shows a significant increase due to demographic inertia.

The most visible evidence of this transformation is the decreasing birth rate (Figure 4). It had already had a significant decline between 1990 and 2018, falling by 44 percent. Mortality levels did not change significantly during that period, but they will likely increase gradually in the coming years due to the change in demographics.

This is a period of great demand for civil registry services, given that birth registration is still rising and deaths are gradually increasing (Figure 4). Although the death rate varies, this does not impact the level of demand, since the population is also increasing.

Figure 4: Number of registrations and rates of births, deaths, marriages, and divorces.

Although the number of marriages has decreased since 2013, the drop is not significant; annual numbers were stable through 2019. Divorces have increased significantly since 1997, from 8,500 in 1997 to 26,800 in 2019. In terms of demand for civil registry services, marriages and divorces together numbered 78,500 in 1997 and 83,600 in 2019. The increase in the number of divorces exceeded the drop in the number of marriages.

There were about 450,000 applications for registry services (births, deaths, marriages, and divorces) in 2017, 2018, and 2019; this figure does not include other services, such as issuing identity cards.

During the highest peak of the pandemic, efforts focused on registering deaths and births. About 1,800 planned marriage ceremonies nationwide could not take place in March and April due to the pandemic; service resumed in May to address the pent-up demand. The new online system and work shift scheduling started in June, when service was fully restored. Civil marriages were conducted using all available biosafety measures.

At the same time, the processing of divorces was delayed. As demand for divorce processing is not high under normal circumstances, no exceptional measures were taken.

Underregistration in Ecuador

In the last population and housing census in Ecuador,⁷ two questions were included about civilian records: did the person have an identification card (and therefore was registered in the civil registry) and, if not, was the person registered? Of the 14,483,499 people who took part in the census, only 161,244 (1.11 percent) answered that they did not have an identification card and were not registered. This is consistent with INEC estimates on the underregistration of births.

In terms of civil registration of live births (those born and then registered at some point in their lives), Ecuador can claim to have a complete registry of its population. However, as Peralta notes, it is still difficult to confirm the completeness and quality of death records.⁸

Regional differences are important: up to 2 percent of the population living in the Amazon region are not registered, while 0.8 percent of those in the Sierra region are not registered. At the national level, the general level of underregistration is low. No significant gender differences were found in this matter.

According to civil registry data for 2020, underregistration of children under 5 years old fluctuates between 44.2 percent in the province of Galapagos and 3.5 percent in the province of El Oro, with the national average being 16.47 percent. As a result, the national birth registration coverage is estimated at around 83.5 percent. Regions such as Galapagos (55.8 percent), Bolívar (60.2 percent), Zamora Chinchipe (61 percent), and Cañar (64.4 percent) have coverage below 65 percent.

MEASURES TAKEN IN RESPONSE TO CHALLENGES POSED BY COVID-19

This section addresses the main initiatives that DIGERCIC took starting in March 2020 in response to the COVID-19 pandemic. These measures were needed not only to meet the great demand for death registrations due to the pandemic, but also to ensure the health and safety of service providers and users of Ecuador's civil registry system. The aim was to keep the registration levels of births, marriages, and deaths as high as possible and to provide reliable information to institutions, media, and academia by updating data in the web portal every day.

Among the main actions done as part of the health emergency measures are medium- and long-term processes. These include modernizing the civil registry system, creating a mobile teams strategy, and using REVIT, the online vital statistics registry system. Some short-term actions were taken as well.

Short-term emergency protocols

Coordinated integration of hospital units

Starting on 20 March 2020, DIGERCIC coordinated the death registration process for deaths caused by COVID-19 with the hospital unit health network, the Ecuadorian Institute of Social Security, the Ministry of Public Health, and private hospitals and clinics. This was done so there would be direct contact between the civil registry and the doctors who issue death certificates. The goal was to safeguard the health, safety, and wellbeing of members of the public; ensure the safety of civil servants working in person; and keep the epidemiological barriers aimed at containing the virus from being compromised.

7 INEC. 2010. ecuadorencifras.gob.ec/censo-de-poblacion-y-vivienda/

8 Peralta, A. et al. 2019. pophealthmetrics.biomedcentral.com/articles/10.1186/s12963-019-0183-y



On 24 March 2020, the central government created a task force through a presidential decree to create a specific protocol for the removal of bodies in Guayaquil, the national epicentre of the pandemic. The civil registry took an active role in developing guidelines for the death registration process for those who died at home.

Service provision strategy

The National Emergency Operations Committee set up a colour-coded system for the progressive return to face-to-face activities. Provinces were classified from red, representing strict isolation and social distancing measures, through yellow and green, representing progressively greater easing of restrictions.

Based on the colour-coded classification system, DIGERCIC developed an action plan that provided guidelines for managing human resources as well as for biosecurity standards that apply in all government offices. These include social distancing measures recommended by the health authorities, the use of face masks, and frequent hand washing. The service provision strategy allows the institution to continue providing services while controlling demand to avoid crowding at face-to-face service desks.

Work shift scheduling and new offices

DIGERCIC aims to control demand for services and the number of people who enter its offices through work shift scheduling; this allows for safety measures to protect everyone involved. Public demand for the identification service is high. Certification services can be accessed through 38 DIGERCIC offices: these are coded as yellow and have printing stations. Users must make an appointment online to visit an office.

Starting on 20 April 2020, five health establishment civil registry offices (ARCES) were added to allow for birth registrations to be completed in a timely manner. Starting on 4 May 2020, DIGERCIC added birth registration services in 45 offices nationwide, Monday to Friday from 8 a.m. to 12 p.m. Services became available under the new work shift scheduling program that started on 4 May 2020; the goal was to avoid crowding in offices, with users scheduling their appointments online.

By the end of May 2020, 80 offices had been set up to process birth registrations, and 75 offices and three ARCES sites had been set up to process death registrations. By the end of June, 162 of the 209 offices and eight ARCES sites nationwide had been set up. This showed a progressive resumption of services and ensured the country's children's right to an identity.

Starting on 26 May 2020, 12 offices were open in regions where mobility and isolation restrictions were relaxed; a decline in the number of infections and a reduction in mortality rates changed the colour classification of these regions to yellow. As mentioned above, marriage license services were gradually resumed for those whose marriage ceremonies were delayed by the outbreak of the pandemic. Starting on 23 June 2020, after pending requests were addressed, the issuing of new marriage licenses resumed in 91 offices nationwide.

Virtual office online service desk

During the pandemic, services were available through the virtual office 24 hours a day, seven days a week. The government issued birth, death, and marriage certificates; identity cards; and common-law documents, among others. The result was 46,004 registered users in May 2020 and 58,064 in June 2020, compared to 12,984 and 12,350 registered users in 2019 in those same months.

Starting on 3 April 2020, online applications for death registration were processed using a digital platform. This process is available for all causes of death: the family member who applies for the service attaches the digital INEC death form, which contains general information about the deceased and the cause of death, signed by the doctor in charge. As part of the process, the civil registry validates the information and sends the death certificate directly to the email address on file; this brings services closer to members of the public.

Processing death registrations online was prompted by the challenges posed by the pandemic. This shift happened as software upgrades were being done. For some cities, using services through the virtual office offers a superior experience compared to in-person visits. One example is the metropolitan district of Quito, where 70 percent of registrations are done online. From the time this strategy was put in place to the corresponding end date between 15 July and 31 August 2020, 28,672 death registrations were made online: this was 50.6 percent of the total for that period.

This new mechanism is in line with the institution's resilience capacity and with the government's Digital Ecuador policy. The national government is promoting this policy with the aim of digitizing as many processes as possible, continuing to join forces, and developing strategies that ensure digital inclusion nationwide.

Daily data updates

As part of the pandemic strategy, information was handled transparently for the public and for the media and academia. The latter two groups rely on having figures updated daily so they can communicate and evaluate the data in a timely manner. The permanent report to the National Emergency Operations Committee is the basis for decision-making for public policy and government decisions.

Starting on 18 April 2020, death figures were published on the internet to keep the public informed about vital statistics. Starting on 20 April 2020, DIGERCIC made web data on daily provincial and regional death registrations public.⁹ Data is published alongside an explanation of variables and metadata to help readers better understand the fields used for publishing death figures.

Identity card renewal

Based on the government mechanisms that are in place, the civil registry issued an administrative resolution on renewing identity cards that are expired or about to expire. This resolution was issued in keeping with the declaration of emergency rule to ensure the right to identity in all its dimensions and scope.

9 DIGERCIC. 2020a.

At the same time, the public was encouraged to get the Certificate of Identity and Civil Status, which has the same data and validity as the identity card and the same expiry date during emergency rule.¹⁰ In this way, members of the public who wish to renew or replace their identity card could use their Certificate of Identity, which they can get through the virtual civil registry office rather than having to visit in person. As an example, 419 certificates were issued in February 2020 (before the pandemic), compared to 4,245 in April in an emergency context; this figure nearly doubled to 8,424 in May.

Fee waivers

It was agreed during the National Emergency Operations Committee plenary session on 27 March 2020 that fees for issuing ordinary and extraordinary death certificates would be waived during the state of health emergency decreed by the national government. This would eliminate economic barriers to access to timely registration and guarantee greater coverage. The most vulnerable Ecuadorian families who lost loved ones during the pandemic would therefore not have to worry about paying for the certificate or going to the bank.

Emergency protocols based on long-term initiatives

Modernization of the civil registry system

At the end of 2008, after an institutional audit, it became evident that the infrastructure of Ecuador's civil registry was obsolete and inadequate.

- It did not meet the technical requirements for its administrative, operational, and technical functioning;

- Most of the infrastructure was not owned by the civil registry;
- Computing centres and archives throughout the country were not physically secure and were not able to protect sensitive information; and
- There was no clarity in the processes.

This situation caused the service to be inefficient and of low quality.

This is why Ecuador undertook the Modernization of the National Civil Registry, Identification and Certification System – Massification Phase. Between 2010 and the present, it increased its budget by 21 percent (around US\$48 million). To date, it has implemented 84 percent of the project outlay, which in absolute terms is around US\$233 million. These are the main areas and elements of the project:

- Element I: Increased coverage;
- Element II: Higher service quality;
- Element III: Project monitoring and control; and
- Element IV: Project evaluation.

All elements are key to ensuring timely access to civil registry services nationwide, with an emphasis on updating technology, improving infrastructure, and enhancing workforce talent. The modernization project continues: it has resulted in the electronic travel document, e-passport, and a new identity document. All of these comply with international standards and new security measures. The plan is to replace all equipment, programs, and software with a biometric authentication service (fingerprint and face recognition).

10 The difference between the two documents is that the certificate is a printable electronic document. The identity document is a physical card with its own characteristics that correspond to current technical and legal regulations.

Online vital statistics registry system

Another measure that is helping to modernize CRVS systems, and which has been of primary importance during COVID-19, is REVIT, the online civil registry. REVIT records information on deaths and live births via the national health system: online statistics are then generated, and underage children are visible. Information is shared immediately with INEC and the Ministry of Public Health.¹¹ Until 2015, this work was done manually in health facilities, leading to problems such as late delivery of documents and duplication of birth registrations.¹²

Automating the death and live birth registration process

- helps to reduce the underregistration of births;
- makes the generated data more reliable;
- makes it easier to monitor and quantify births;
- allows the government to register and consult information on the mother and the newborn; and
- allows for the unique identification number (NUI) that is assigned to each infant to be generated, which means the registration process can begin right after birth.¹³

During health crises or emergency situations, the fact that the REVIT system interoperates with other systems mitigates various challenges related to access, such as

- geographical barriers;
- social distancing; and
- movement restrictions within and between cities and provinces that affect the more remote populations and those living in poor urban areas.



Photo: Bryan Delgado / Unsplash

A prompt response by the system is essential in times of health crisis to facilitate immediate decision-making. The need for an internet connection is a socioeconomic and cultural barrier in some regions of Ecuador.

The REVIT system was not meant to resolve underregistration during a health crisis such as COVID-19, but since it was created in 2015, and thanks to constant improvements, it has matured and is working well. From mid-2014 to May 2017, 570 agreements were made with the country's public and private entities so their doctors could take part in implementing this system. Around

¹¹ Torresano Melo, M. et al. 2018.

¹² Mora, K. et al. 2017.

¹³ Torresano Melo, M. et al. 2018.

1,660 medical users of the health system have been part of these agreements, which by May 2017 had resulted in 250,000 electronic records of live birth.

Given that a large percentage of deaths take place at home and thus outside the REVIT system, coverage needs to be expanded to further improve the registration of deaths — both the number and the quality of the records.

Mobile teams

DIGERCIC created the mobile team strategy to reduce underregistration in geographically remote areas and areas with vulnerable populations. Socioeconomic and cultural factors, as well as geographical conditions, mainly in low-income rural areas, discourage parents from visiting civil registry offices to register their newborns in a timely manner.¹⁴

For this reason, agreements with other public institutions, private companies, international organizations, and decentralized autonomous governments allowed mobile teams to issue certificates to high-priority groups as needed.¹⁵

Having mobile teams changed the concept of the State, which went from being an inert and static one that waits for citizens to go to a service desk to being more proactive and dynamic. The State now actively seeks to progressively eliminate geographical and economic barriers that prevent citizens from accessing legal identification documents.¹⁶

In the context of the pandemic, mobile teams made it possible to overcome socioeconomic, cultural, and geographical barriers and to bring services closer to the most vulnerable

populations at a time when movement within and between cities and provinces is restricted. Thanks to new administrative mechanisms, civil registry services could be brought closer to the vulnerable population safely, despite the restrictions. The mobile team strategy will continue and will be reinforced after the pandemic.

STRUCTURAL AND OTHER CHALLENGES OF ECUADOR'S CIVIL REGISTRY SYSTEM

The CRVS system is a key pillar for consolidating more and better public policies, especially those that focus on vulnerable populations. The challenge for the region and for Ecuador after the pandemic will be to

- ensure the lowest possible levels of underregistration; and
- perfect institutional mechanisms and protocols so the quality of the information being registered meets the highest standards.

For this reason, as mentioned by the Organization of American States, it is important to take a multifaceted approach to evaluate and improve registry quality and to strengthen the capacity of CRVS systems.¹⁷ In this way, governments can respond to demand for access to public services and ensure access to citizens' rights, starting with the accurate and timely registration of legal identity.

Based on data analysis carried out nationwide and on the actions taken during the pandemic, various structural and other challenges have been identified.

14 Taiano, G. V. 2019. clarcierv.com/IMG/pdf/Revista-CLARCIEV-Edicion2.pdf

15 Ibid.

16 Ibid.

17 Organization of American States. oas.org/sap/docs/puica/Documento_Criterios_para_los_sistemas_RC.pdf

Integration with the health system

Urbanization and the concentration of the population in a few urban centres makes it easier to develop CRVS systems. It is then possible to invest in health institutions and services on a large scale, leading to a synergy of registry quality and coverage.

However, historical, national, and regional circumstances can make it difficult for the system to evolve. The implementation of REVIT has meant that much progress has been made in Ecuador in terms of birth and death registration, as well as service quality, as DIGERCIC has modernized. Challenges persist, such as the large proportion of deaths that occur at home (46 percent in 2018),¹⁸ but these can be overcome. They call for active solutions by the state to ensure that these events are registered in a timely and accurate manner.

Integration with the country's health system — which is still quite segmented between the Ministry of Public Health, the Ecuadorian Institute of Social Security, and the private sector — is essential in this framework. It is also quite complex. Once again, implementing REVIT allowed progress in this area by simplifying communication between the health professional or institution, DIGERCIC, and INEC: this improved both timeliness and quality. For this reason, one of the most important remarks in this document is the need to continue expanding REVIT coverage to improve the registry and its quality.

Quality of the registry

Furthering the qualifications of medical professionals or authorized persons to improve the quality of reporting of causes of death is still a challenge; this is a problem that analysts have often pointed out.^{19, 20} It was the subject of a Bloomberg Data for Health initiative²¹ that sought to train physicians in certification of causes of death and in the use of REVIT for that purpose.

In emergency situations such as COVID-19, information may not be accurate if registrations are not timely or if the professionals in charge of death certificates do not fill out the statistical reports correctly. When this is the case, a precise codification of the cause of death is missing. These factors have a direct impact on the quality of the registry and therefore on the generating and follow-up of statistics that allow us to fully understand the impact of the pandemic and to respond accordingly.

Culture of registration

Progress in how well the CRVS system works depends on the joint responsibility of private and public agents. Although the quality of the public apparatus for processing registrations has improved, incentives for individuals to use the service desks are needed so that underregistration can be reduced and the quality of the information can be improved.²² These incentives often begin with providing public services such as education, health, and social security. Still, in cases of poverty, social vulnerability, or geographic isolation, more actions or integrated actions are needed to create

18 INEC. 2019. ecuadorencifras.gob.ec/documentos/web-inec/Poblacion_y_Demografia/Nacimientos_Defunciones/2019/Principales_resultados_ENV_EDF_2019.pdf

19 Peralta, A. et al. 2019.

20 Rosero, A. P. C. et al. 2018. revistamedicahjca.iess.gob.ec

21 McLaughlin, D. and Lopez, A. D. 2019. doi.org/10.1590/1980-549720190016.supl.3

22 AbouZahr, C. et al. 2015. [doi.org/10.1016/S0140-6736\(15\)60173-8](https://doi.org/10.1016/S0140-6736(15)60173-8)



Photo: Diego Delso / CC BY-SA delso.photo

conditions so operations can improve. In the case of Ecuador, actions that have been adopted include a mobile team strategy, initiatives such as Digital Ecuador, a differentiated fee structure, and integration with other public and private actors, such as health institutions and funeral homes.

The population of Ecuador has a great diversity of customs and cultures. A major challenge is to expand vital event registration coverage in diverse contexts while respecting the rights of different peoples and nationalities, as their communities and cultures may not be automatically included in the mainstream. The mainstream view presupposes that vital events occur in institutional spaces and that the population is more and more concentrated. As a result, attempts to strengthen civil registration systems must consider various factors and barriers when people need to register. Registration must be convenient, accessible, and close to the citizens. In some territories in Ecuador (especially in rural areas), the civil registry service is still difficult to access. Mobile teams play a key role in mitigating this situation.

Being able to educommunicate with the public about the culture of registration is important, too.

The State must create a strong communication campaign with educational components using a rights-based approach. In this way, the public may be educated about a culture of timely registration on a mass scale, especially in provinces where, due to structural factors, citizens do not access DIGERCIC services in a timely manner. It is vital to use inclusive language to reach all segments of the population where this problem is identified and, above all, to continue promoting the mobile team strategy.

Opportunity to register

On a smaller scale, some citizens have trouble accessing birth registration in a timely way. This makes it difficult to plan public policies, especially in crisis situations such as COVID-19. A mobile team strategy is one way of addressing this problem; it must be looked at again during the reassessment of post-pandemic risks.

Poverty and geographical isolation

Socioeconomic and cultural factors, as well as geographical conditions — mainly in poor rural areas — discourage parents from visiting civil registry offices to register their newborns in a timely manner.²³

23 Taiano, G. V. 2019.

Factors such as a weak culture of registration and socioeconomic and geographical inequalities are reflected in the challenges mentioned above. The geographical scope of the Amazon, for example, influences the quality and especially the timing of registrations. It is evident that, in addition to the variables mentioned, progress in terms of coverage and record quality depends on specific contexts.

Legal deficiencies and information and communication technologies

As part of the Digital Ecuador policy, processes are being simplified through digitization. Red tape is being reduced for the four basic laws that support the civil registration system:

- Protection of the person and confidentiality of information;
- Laws on electronic signatures;
- Digital government; and
- Identity theft.

Personal data protection laws grant confidential status and legal protection to information in birth and death records. The government provides information and services through information and communication technologies (ICT); electronic governance laws provide for regulations on digital signatures to make electronic processes legally valid. In turn, identity theft laws provide support to mitigate the risk of misuse of personal information.

In many developing countries, these laws are still low in scope: that is, they do not form a legal framework that can introduce cultural, social, and technological changes, such as ICT systems. These gaps are part of a set of intrinsic problems in the CRVS system that result in a substantial portion of the population not registering births or deaths.

In Ecuador, DIGERCIC is digitizing its services and complying with confidentiality provisions and the appropriate use of personal information, which increased during COVID-19. Developing a digital platform for registering deaths online, strengthening the virtual office for issuing certificates and required documents, and offering an online scheduling system all serve to promote digital policy and safeguard the health of both staff and users during a health emergency.

CONCLUSION

States must commit to transforming the institutions that register civil acts and events into essential care agencies. This includes promoting all civil registration services and ensuring that they are provided during emergency situations. In some cases, this means creating new protocols.

The case of Ecuador illustrates how during the pandemic — despite quarantining, restricted movement, high mortality rates, and other factors that paralyzed the country without warning — the government created technical and administrative strategies so that civil registry services could continue.

The emergency processes and protocols developed during the pandemic were possible thanks to the resilience of DIGERCIC's institutional framework and its ability to adapt its response and service to an extraordinary situation. These strategies included

- expanding registration channels while maintaining privacy and confidentiality as a basic principle;
- doing a permanent debugging of the database; and
- remotely confirming information (through a stronger web platform) by creating an online death registration service as the number of deaths increased because of the pandemic.

The constant training of care personnel, a working cooperative administration system that strengthens the mechanism for recording and collecting data, and the publication of daily updates make it possible to generate statistics for public policy that is responsive in fragile contexts. The daily updates had a positive impact among the public and in the media, since there was a certain mistrust of the numbers provided by other ministries. That is why the Government of Ecuador committed to share the daily death data from all causes through DIGERCIC, so the public had access to more information to help them know what was happening in the country.

In an emergency situation, decisions are made quickly. There is no time to create new structural systems. Also, any health crisis or emergency is accompanied by an economic crisis, which leaves the country with few alternatives for spending or large-scale funding programs. This means it is advisable to make long-term investments in robust infrastructure. Two examples are the modernizing of the civil registry over the last 13 years and the creation of REVIT: these processes, which require time and resources, led to resilience and the flexibility to adapt new protocols and respond to the demand triggered by the COVID-19 crisis.

The emergency challenged how all public services are provided. Several lessons were learned along the way. The biggest challenge was to act diligently and efficiently, as quickly as possible, in a context with no known best practices while also addressing the fear that permeated in-person settings and Guayas and Guayaquil in their darkest days. The work was possible thanks to the government's will and DIGERCIC's decision to keep offering services and to adapt to new methodologies and practices.

The COVID-19 pandemic is a challenge that can be addressed by

- taking a cross-sectional approach to the needs of the new reality;
- undertaking short-, medium- and long-term strategies that make it easier to overcome structural barriers; and
- providing timely care to the most vulnerable populations, such as the elderly, people with disabilities, and various ethnic populations.

In such an emergency situation, CRVS systems and institutions are called to be resilient. They must continue to ensure that the civil registry continues to function for members of the public and upholds the public's rights.

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COVID-19 and CRVS in New Zealand: The Show Must Go On

by Jeff Montgomery

INTRODUCTION

This article outlines the Government of New Zealand's response to the COVID-19 crisis from a civil registration perspective. It examines the initiatives the government took to reduce the effects of the pandemic on health and civil registration services and highlights the long-term benefits of the emergency response efforts put in place at the onset of the crisis. The paper is based on a 22 June 2020 presentation at the Asia-Pacific Stats Café Series: Asia and the Pacific CRVS Systems' Responses to the COVID-19 Crisis.¹

KEY MESSAGES

- It is important to categorize civil registration and vital statistics (CRVS) in government emergency plans and legislation as an essential service during times of crisis.
- It is essential to ensure that business continuity plans are always up to date.
- Online and cloud-based systems are resilient in a time of crisis and should be considered an important tool in building resilient systems.
- Administrative data that can provide information quickly is valuable and popular with the public in times of crisis.

- There is opportunity in a crisis: longer-term systemic gains have been achieved during times of crisis for processes that might otherwise have been difficult to change.

THE NEW ZEALAND CONTEXT

New Zealand is a small island country in the southwestern Pacific with a total population of 5 million. A young country, it was founded in 1840 through the Treaty of Waitangi between the British Crown and the Indigenous Maori. On 1 January 1848, an ordinance, following similar British acts, allowed the fledgling government to record births and deaths that occurred in the colony. This also established the office of the Registrar-General.

Every year, an average of 60,000 births, 30,000 deaths, and 30,000 marriages are registered in New Zealand.

In 1995, legislation was passed that allowed for more than 10 million old records to be digitized and for all future registrations to be computerized. In 2015, parents were able to complete the registration of their children online. This was replaced in 2017 by an integrated tool that provides new parents with advice and access to a range of government services through

1 unesco.org/sites/default/files/The_Show_Must_Go_On-COVID_CRVS_Jeff_Montgomery_NZ_StatCafe_4th_22Jun20.pdf

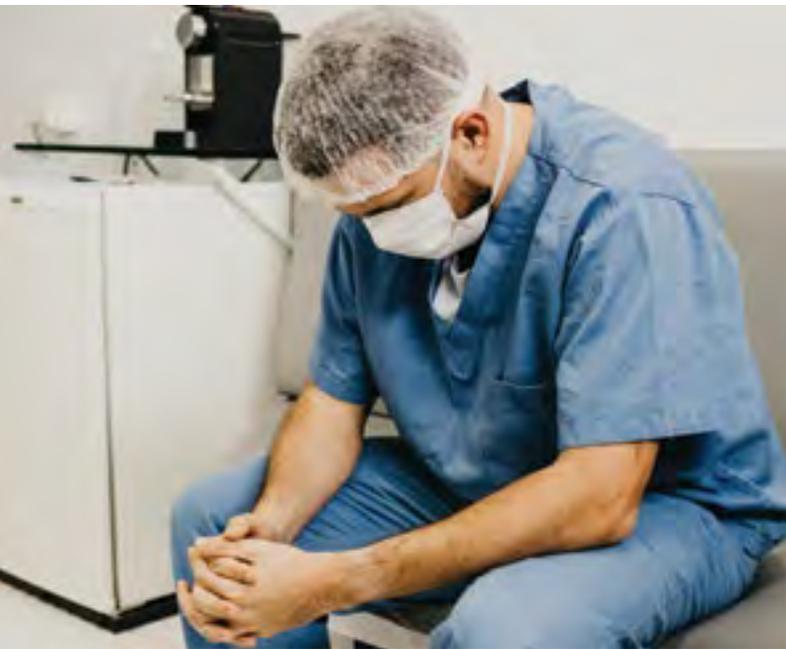


Photo: Jonathan Borba / Unsplash

electronic sharing of birth registration details. In 2019, it became possible to order birth, death, and marriage certificates online.

Over the last seven years, civil registration and vital statistics (CRVS) efforts in New Zealand have focused on moving toward digital birth and death registration systems. Today, 95 percent of births and 95 percent of deaths are notified entirely online, without the need for paper forms or signatures. Medical Certificate Cause of Death (MCCD) reporting became a fully online system in 2019.

COVID-19 in New Zealand

From the beginning of the pandemic to the 22 June 2020, the country recorded 1,560 COVID-19 cases and 22 deaths.

- The first COVID-19 patient was reported on 25 February 2020.

- Borders closed on 19 March 2020, except to New Zealand citizens and permanent residents.
- A national lockdown was implemented on 25 March 2020; it lasted until 27 April 2020.
- On 8 June 2020, all restrictions related to COVID-19 were lifted, except for border controls.
- As of 15 June 2020, New Zealand had not reported any new cases of COVID-19 transmission within the country. Any new cases have been identified through quarantine processes for New Zealanders returning from overseas.²

NEW ZEALAND'S RESPONSE TO COVID-19

In response to the COVID-19 crisis, the Government of New Zealand adopted a “flattening the curve” strategy to reduce the speed of the outbreak. The aim was to avoid inundating key hospital and funeral services with a large number of deaths in a short period of time, as seen in other parts of the world.

CRVS in the time of COVID-19: Maintaining high registration levels during the COVID-19 lockdown

The Government of New Zealand considers civil registration to be an essential service in any emergency situation, from natural disasters such as earthquakes, volcanic eruptions, and tsunamis to health emergencies such as pandemics. Also, New Zealand civil registration already had in place a business continuity plan – a process that creates systems of prevention and recovery to handle an emergency. The plan was updated in February 2020 to ensure it was suited to responding to the COVID-19 pandemic.

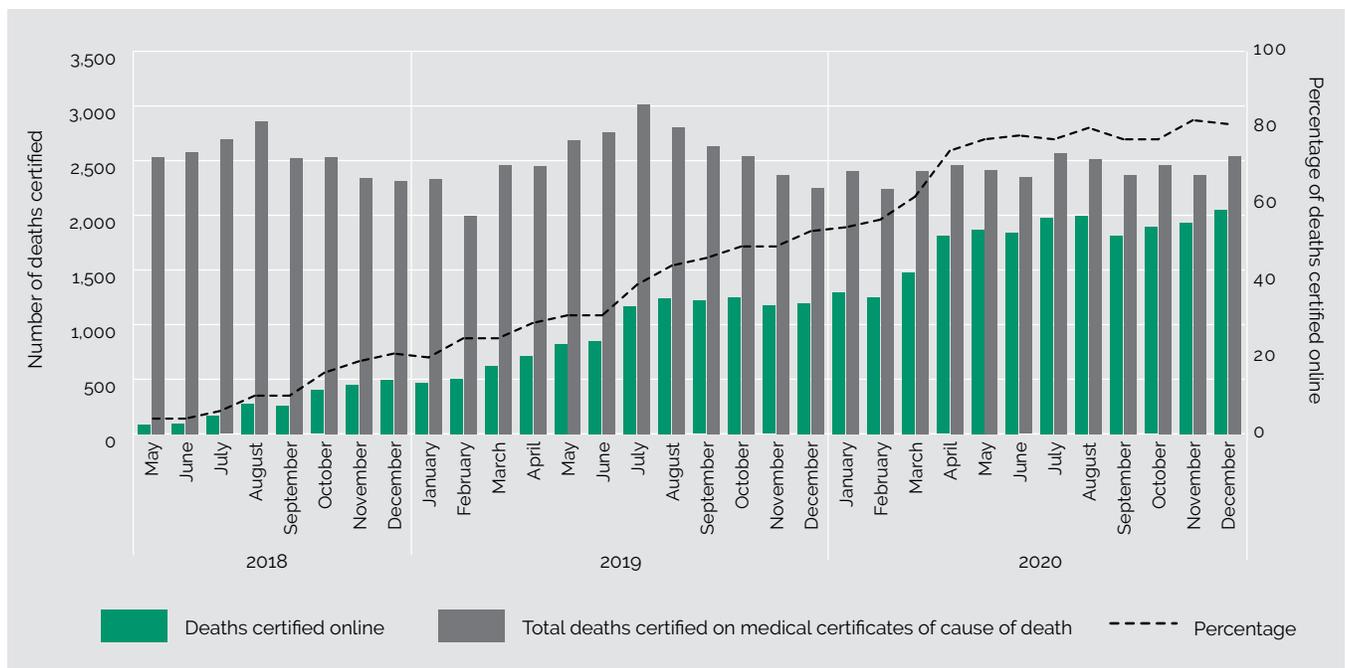
2 Ministry of Health – Manatū Hauora. health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-current-situation/covid-19-current-cases#summary

Another key asset earned through advance planning was a good understanding of the staffing capacity needed to maintain core CRVS services: these included birth and death registration, which were identified as a top priority. Much effort was put into clearing work queues before the start of the national lockdown. Also, civil registration staff were split into two teams: each took separate three-day work shifts while respecting a 2-metre desk distance. Stakeholders and customers were encouraged to use online services, and all non-essential work was halted. Together, these various interventions allowed civil registrars to stay open

and continue to provide full services during the lockdown period.

One key element of the successful crisis response was promoting the use of the online Medical Certificate Cause of Death (MCCD) system (Figure 1). The use of this online tool has grown rapidly since it was introduced in 2018 as a pilot program and launched in 2019. During the national lockdown in April 2020, 74 percent of all deaths certified were done through this online platform. A large increase was seen in April and May 2020, as general practitioners and hospitals were encouraged to use the online service.

Figure 1: Growth of certificates completed online on the Medical Certificate Cause of Death system.



Total deaths for October 2020 is an estimate based on October 2019 deaths

New Zealand's business continuity plan for CRVS

A business continuity plan pinpoints the most important parts of a civil registration operation, identifies potential risks to these critical pieces, and prepares for a quick and easy recovery. It acts as a plan B and should cover all types of disruptions, such as natural disasters, loss of key staff or locations, equipment breakdowns, or loss of a supplier. The New Zealand civil registration business continuity plan was developed many years ago and is updated regularly.

The plan documents key systems, staff, and supplier contact details, location of materials in offices, and alternatives. Scenarios covered by the plan include loss of primary office locations, loss of IT infrastructure, loss of the capital city, and loss of key staff or a high percentage of the team. This final scenario was modified at the start of the COVID-19 pandemic and became the basis for operating during this time. The plan outlines steps to be taken right away when an incident occurs and lays out a strategy to follow should the event continue for days, weeks, or months. It also details the services to be prioritized and key lines of communication.

The importance of a business continuity plan to maintain CRVS systems during an emergency

When a country faces an emergency, it is crucial to ensure that there is a formalized and documented process that is backed by the civil registration legislative and policy framework. This involves setting up key stakeholder relationships and communication channels, including with the public. Business process maps are useful for identifying specific activities that different

stakeholders would need to do at various stages of the disaster (before, during, and after) to ensure that the civil registration system is fully efficient. Contingency plans are living documents. This means they should be updated regularly, especially after disasters, where additional learning can improve the plan substantially. It is also important to do regular exercises to test the implementation of the plan.³

In the case of New Zealand, a business continuity plan for CRVS operations is often used during minor interruptions, such as temporary office closures or IT outages. It has also been used during more significant events, such as the Kaikoura earthquake in Wellington (2016), Christchurch mosque terrorist attack (2019), and Auckland Convention Centre fire (2019). The plan is updated once a year or when there is a major change in the operating environment. It is also reviewed after any major event to reflect lessons learned from carrying out the plan.

The main benefit of having a business continuity plan during an emergency is that an organization can respond quickly to the situation without needing to seek approval for each step to be taken. Also, those who are responding to the event have all the information they need at their fingertips, including whom to contact for more support.

The role of CRVS in New Zealand's COVID-19 response

The civil registration system is integrated into the New Zealand government's overall response to the COVID-19 crisis. The Registrar-General is a key member of the COVID-19 Mass Fatality Response Team, which is based in the National Response Centre for the pandemic. The team works closely with the national police, who manage the situation in the community.

3 Pacific Civil Registrars Network (PCRN). 2017. spccfpstore1.blob.core.windows.net/digitallibrary-docs/files/df/df51f162833e837ea8b8f7d00c3e65f5.pdf?sv=2015-12-11&sr=b&sig=G5%2FaCPjHo6QFTULgtJ3lBmLDs3xDiWJWZ%2FgIOBx23SQ%3D&se=2021-04-06T08%3A03%3A56Z&sp=r&rscc=public%2C%20max-age%3D864000%2C%20max-stale%3D86400&rsct=application%2Fpdf&rscd=inline%3B%20filename%3D%22PCRN_2017_Workshop_final_report.pdf%22

An early priority of the country's COVID-19 response was to account for the number of hospital beds available to care for severe cases, as well as the availability of storage facilities for those who died. Decision-makers at the time were working with a worst-case scenario that forecasted as many as 7,000 COVID-19 deaths, which would have put the entire system under immense pressure.

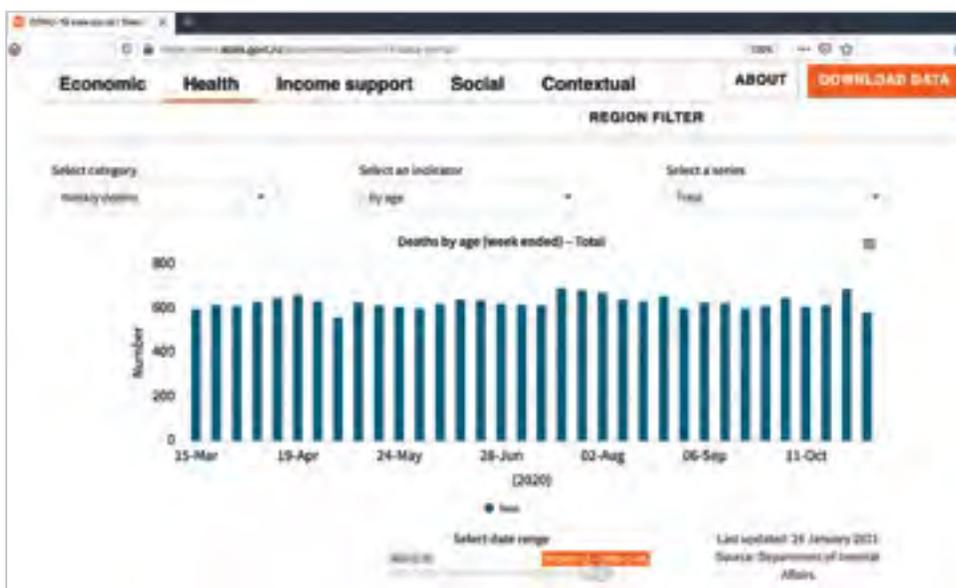
In response to this need, the CRVS system initiated the daily reporting of deaths to the Mass Fatality Response Team. This ensured a timely and accurate assessment of storage capacity and anticipation of any capacity issues. To support this objective, a new database of funeral directors was created. This database, which was also updated daily, contained more detailed information on funeral facilities, including the quantity and temperatures of refrigeration units and staff availability. Funeral directors were informed regularly of various processes through an electronic newsletter, which was another

platform for aggressively promoting the online MCCD reporting tool.

The data from the online MCCD tool informed the daily death reports to the Mass Fatality Response Team. The daily death reports, in turn, informed the new weekly death statistics that Statistics New Zealand published.⁴ This data has been very popular with the New Zealand public during the crisis. Public access to this timely data allows people to keep themselves informed of the COVID-19 situation in the country through an unbiased, data-based source.

In part due to concentrated media attention on every single COVID-19 fatality in the country, many were alarmed by what they perceived to be rapidly increasing death rates due to the virus in New Zealand. These publicly available weekly death statistics allowed people to see how death trends in New Zealand during the pandemic were not different from death trends before the pandemic (Figure 2).

Figure 2: Example of weekly death statistics portal.⁵



4 Statistics New Zealand. COVID-19 data portal. stats.govt.nz/topics/covid-19

5 Statistics New Zealand. COVID-19 data portal. Figure 2 is a screenshot of New Zealand's weekly death statistics, available in English only and updated regularly on the Statistics New Zealand website: stats.govt.nz/experimental/covid-19-data-portal.

Longer-term benefits

Longer-term benefits have emerged as a result of these crisis response efforts, especially in the area of data availability and digitization.

Weekly deaths statistics are now available on the Statistics New Zealand website; in the past, they were published every three months. Now a broader community has greater access to up-to-date data than ever before.

A complete dataset of all funeral directors and their storage capacities is also now available. It is updated regularly through the industry body.

Finally, from an operational perspective, there has been a significant increase in online death reporting through DeathDocs⁶ as well as important, permanent changes in the way civil registration services are delivered. Following the lockdown, the decision was made to maintain services through appointments only (these can be made online) and to go cash-free in order to limit person-to-person contact.

CONCLUSION AND KEY LESSONS

Despite a mild resurgence of COVID-19 in New Zealand following a period of no cases earlier in 2020, the country was successful in flattening the curve. Hospital and funeral systems were not severely impacted as planned, and a return to normal life was possible within a short time.

The New Zealand government's initiatives were successful in containing the coronavirus outbreak, and the government was able to keep providing vital registration services to its population. In the post-emergency period, the following key lessons learned were identified to ensure the most effective response for future emergencies:

- It is important to have civil registration categorized as an essential service in emergency plans and in legislation.
- It is essential to ensure that business continuity plans are always up to date to prepare for an adequate and effective response.
- Online and cloud-based systems are resilient in a time of crisis and should be seen as an important tool in building resilient systems.
- Administrative data can be provided quickly when necessary and is of great value to the public, who are able to stay informed.
- New Zealand was able to make permanent changes to service delivery in CRVS, which may not have been possible if not for this crisis situation. Thus, it is important to never miss an opportunity that a crisis may bring.

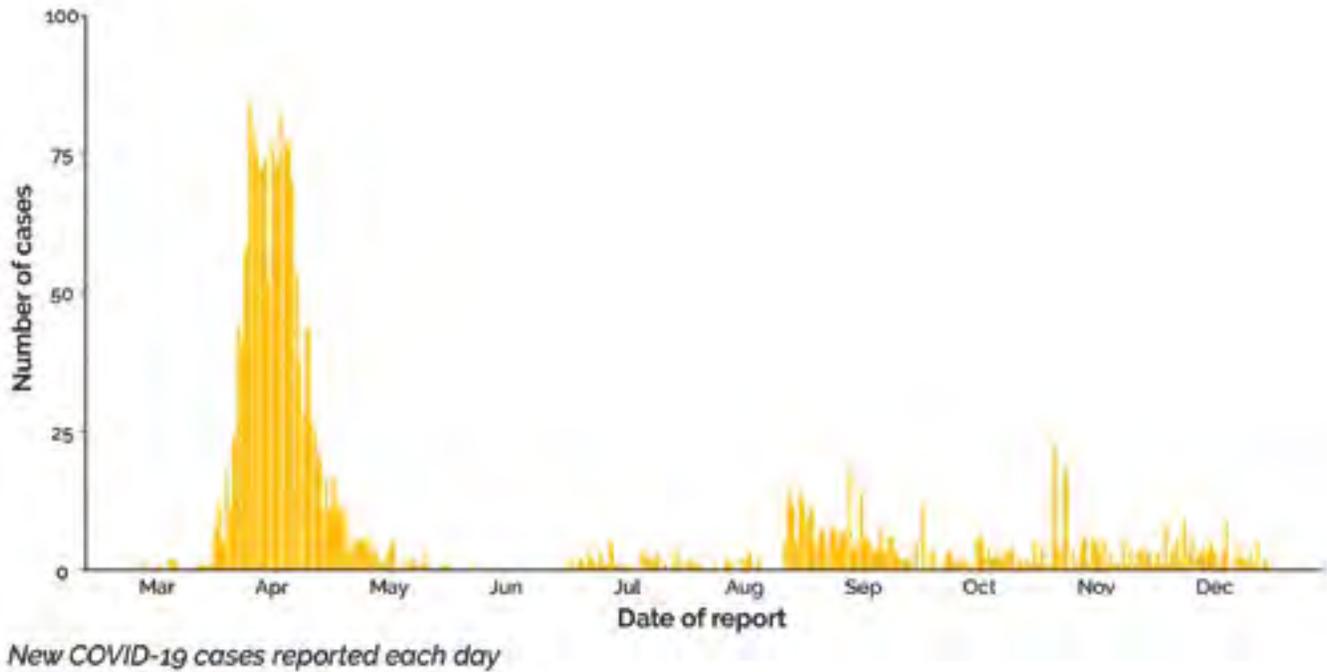
6 Death Documents. deathdocs.services.govt.nz

RESURGENCE OF COVID

Since the original draft article was written, there has been a mild resurgence of COVID-19 in New Zealand (Figure 3). As of 17 December 2020, there were 43 active cases, 2,032 recovered cases, and

25 deceased. All 43 active cases were in managed facilities. The sources of active cases included 41 (of the 43) who travelled internationally and were diagnosed in managed facilities at the border. Two people were in close contact with someone who caught COVID-19 overseas.⁷

Figure 3: Daily confirmed and probable cases of COVID-19 in New Zealand as of 17 December 2020.



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7 Ministry of Health – Manatū Hauora. health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-data-and-statistics/covid-19-current-cases.

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Statistics New Zealand. COVID-19 data portal. New Zealand Government. stats.govt.nz/experimental/covid-19-data-portal

Statistics New Zealand. COVID-19. New Zealand Government. stats.govt.nz/topics/covid-19

The Role of CRVS in Estimating COVID-19-related Excess Deaths in South Korea

by Eunkoo Lee, Seokmin Lee,
and Tanja Brøndsted Sejersen

INTRODUCTION

Modern-day epidemics, such as COVID-19, are expected to result in short-term mortality shocks. But how many people have actually died from COVID-19? This is a big question and one that is on everyone's mind. While it seems to be a very straightforward question, it is not easy to answer accurately. A well-functioning civil registration and vital statistics (CRVS) system could provide a possible answer to this question. However, during a public health emergency such as COVID-19, even a well-functioning CRVS system is faced with challenges of backlogs in death registrations and diagnostic uncertainties (for example, limited number of testing, misdiagnosis, and difficulties in ascertaining ultimate cause of death to COVID-19).

Calculating excess deaths can be useful in estimating the mortality level by removing the uncertainties associated with COVID-19. It simply estimates the additional deaths that have occurred because of COVID-19 by comparing the reported deaths with the normal number of deaths that would not have occurred had the pandemic not happened. To better quantify the impact of COVID-19 on population mortality, excess deaths can be studied among those officially identified as official COVID-19 deaths, which are dependent on the number of people tested for COVID-19.

In order to inform the response to the pandemic, COVID-19 excess deaths are jointly analyzed by the Korea Disease Control and Prevention Agency, which leads the COVID-19 response, and Statistics Korea (KOSTAT), which manages CRVS in the Republic of Korea.

A robust CRVS system is necessary for an analysis of excess deaths. This is because there is a risk of underestimating excess deaths if the death reporting rate falls due to restricted population movement and activity. In this paper, we present a study of excess deaths and of the CRVS system conditions necessary to produce such estimates. In addition, we present alternative sources of administrative data that can be used in evaluating the impact of COVID-19 on mortality in situations where the traditional CRVS reporting pathway may be disrupted or compromised.

THE CRVS SYSTEM IN KOREA

The Republic of Korea has one of the most well-functioning CRVS systems in Asia. The system is divided into two parts: The family relationship registration and the resident registration. The former is the oldest system, and registers family ties. The latter has been introduced more recently and keeps track of all individual events. The Supreme Court and the Ministry of the Interior and Safety, respectively, assume family relationship



Photo: Ethan Brooke / Pexels

registration and resident registration. Korea has universal birth and death registration of its citizens and has very small numbers of delayed registration.¹

The vital statistics system, which relies mostly on data from resident registration, is the responsibility of KOSTAT. Registration takes place in 226 city, county, and district (*si*, *gun*, and *gu*) offices, and

at 3,560 community service centres (*eup*, *myeon*, and *dong*). In 2004, KOSTAT established a link among the family registration systems to produce vital statistics.²

DEFINITION AND THE NECESSITY OF MONITORING EXCESS DEATHS

Excess deaths are defined as the difference between the observed numbers of deaths in a specific time period and expected numbers of deaths in that same time period.³ The excess deaths analysis contributes to the identification of and response to regional hazard signals, complementing the national disease control policy. More specifically, the excess deaths analysis, using CRVS, allows the identification of populations at greatest risk of death (as excess death was mainly seen among the elderly), thereby enabling the efficient allocation of medical resources. For instance, if excess deaths were identified in a particular area among the elderly, a targeted response could be initiated through various actions: procuring hospital beds in the local area, treating milder COVID-19 cases in self-isolation, providing additional medical resources, and prioritizing medical attention among the elderly population.

It is important to define the types of COVID-19-related deaths in order to minimize bias when analyzing excess deaths. Although the types of excess deaths can be defined conceptually (as shown in Table 1), observed deaths without sufficient medical information can make death classification difficult.

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- 1 Republic of Korea CRVS Decade (2015–2024) Midterm Questionnaire. getinthepicture.org/resource/republic-korea-crvs-decade-2015-2024-midterm-questionnaire
 - 2 getinthepicture.org/country/republic-korea
 - 3 cdc.gov/nchs/nvss/vsrr/covid19/excess_deaths.htm

Table 1: Summary of the types of excess deaths attributed to COVID-19.

COVID-19 relevance	Type of death	Details
Direct cause	COVID-19 death, with confirmation	COVID-19 has been confirmed by laboratory testing (PCR test)
	COVID-19 death, without confirmation	COVID-19 is diagnosed clinically or epidemiologically, but laboratory testing is inconclusive or not available
	Complication or sequelae of COVID-19	Death as a result of complication or sequelae of COVID-19
Indirect cause	Lack of medical care	Death due to lack of medical resources caused by COVID-19
	External factors due to self-isolation	Mental stress or domestic violence caused by self-isolation due to COVID-19
Not relevant	External factors, such as extreme weather, not related to COVID-19 In particular, Korea experiences cold waves in January and February, which impact mortality, especially among the elderly	

CRVS CONDITIONS FOR EXCESS DEATHS ANALYSIS

For accurate excess deaths analysis, the CRVS system should be continuous, permanent, compulsory, and provide the universal recording of vital events.⁴ In particular, universal coverage and continuity are CRVS system characteristics that are essential for the accurate analysis of excess deaths. The Republic of Korea has universal coverage in the registration of Korean citizens, and the vast majority of registrations are very timely. Birth certificates are issued by health professionals and are needed to register the infant with the registration authority.

For universal coverage to be attained, a vital statistics system must include all of the vital events occurring in every geographical area and among every population group in the country. If the coverage of a specific region or population is not complete, it results in inaccuracies when interpreting the data. Furthermore, in order to ensure the timeliness of statistics, the median time between a death occurring and being registered — known as the delay in death registration — should not exceed a few days. In situations like the current COVID-19 pandemic, when statistics need to be produced quickly, the process of identifying excess deaths becomes harder as death registration becomes increasingly delayed. Thus, the reporting of deaths must

4 emro.who.int/civil-registration-statistics/about/what-are-civil-registration-and-vital-statistics-crvs-systems.html



Photo: Joel M. B. Marrinan / Pexels

be made compulsory to reduce the time lag between deaths and their official registration and to increase coverage. In 2018 in Korea, only 43 deaths were not registered within a year and the vast majority of deaths were registered within the legally stipulated one month.⁵ It is also possible to increase the coverage of death reporting by the direct notification and submission of death certificates from medical institutions or by imposing a penalty on a legal basis.

The continuous registration of vital events is critical to the collection and compilation of vital statistics that will reflect short-term fluctuations, including any seasonal changes. Death notifications must be collected in frequent and regular cycles, and statistics pertaining to excess deaths should be updated regularly in parallel. For example, if death reports are collected on a monthly basis, the number of excess deaths should be updated monthly as well; weekly collection systems should be updated weekly.

During a pandemic, where deaths cannot be reported in person at a municipality office, two alternative methods for collecting data can be used: data from crematoriums can be collected or deaths can be reported through the internet. In Korea, crematorium data and death certificates are collected for infant deaths, which have a higher risk of being under-reported through normal death registration routes. If death reporting rates are found to be lower than anticipated, it is possible to supplement not only infant death statistics, but also total death counts with the crematorium data.

In addition, in order to analyze excess deaths by specific population groups, information such as residence, age, and gender must be included on the death notification form. The results of these analyses can be used to inform policies for specific populations and to prioritize medical resource allocation.

METHOD FOR ANALYZING EXCESS DEATHS IN KOREA USING CRVS

When a death occurs in Korea, family members should submit the death report form to local offices along with the medical certificate of death issued by a physician. In the case of death not only in medical institutions, but also in deaths outside medical institutions such as housing, doctors directly examine and issue death certificates. The rates for death registration with medical certificate of death in Korea is 99.7 percent. Most of the remaining 0.3 percent died abroad. The death registration rate in Korea is high because Korean national law requires deaths to be registered within one month. In 2018, the average monthly death reporting rate was 98 percent. Municipal officials input the reported data into the vital statistics system managed by the national statistical office, KOSTAT, on a

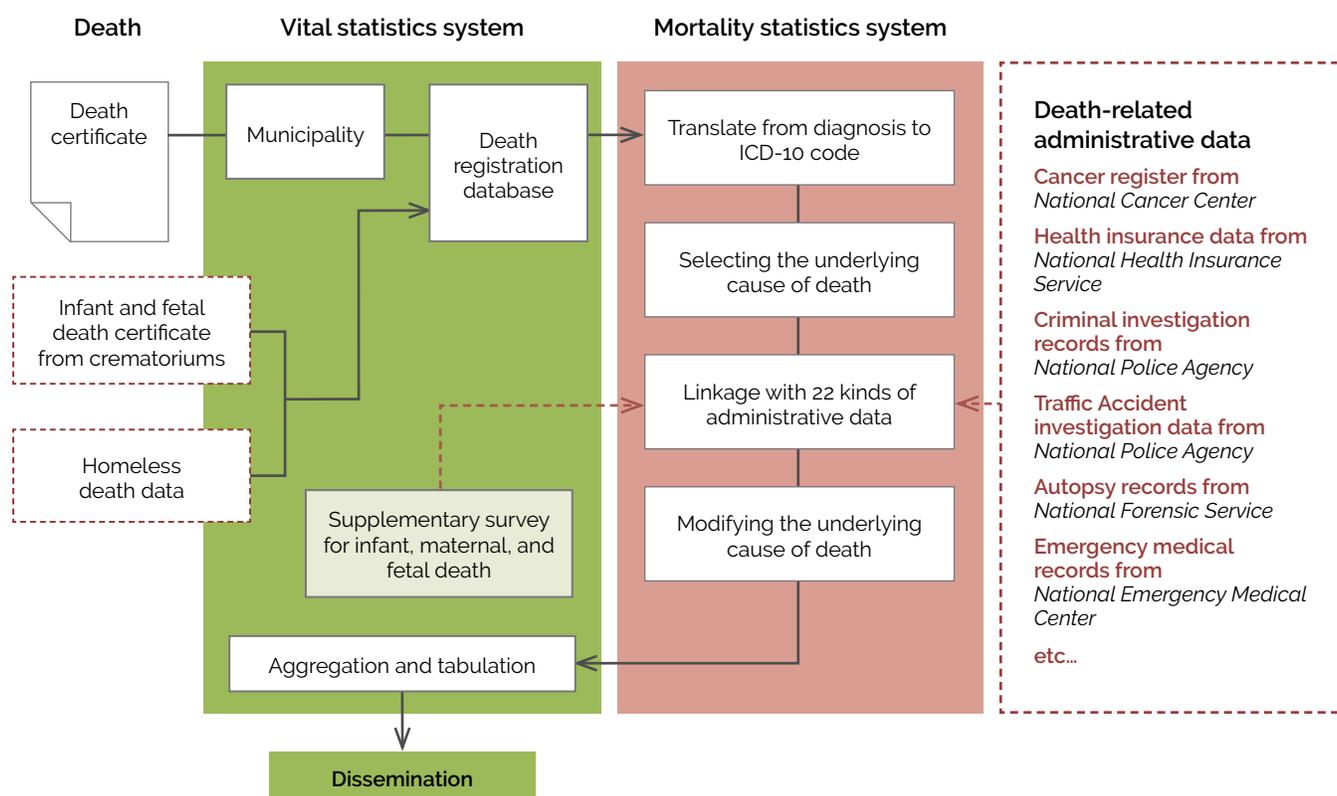
5 Republic of Korea CRVS Decade (2015-2024) Midterm Questionnaire.
getinthepicture.org/resource/republic-korea-crvs-decade-2015-2024-midterm-questionnaire

monthly basis. The cause of death entered in the vital statistics system is transmitted to the mortality statistics system in real time, and the process for selecting the underlying cause of death is in progress. From this data, KOSTAT is able to generate statistics on demographic dynamics and causes of death. The causes of death are classified as recommended by the World Health Organization, but there are instances where the death certificate has errors or the causal relationship between the recorded conditions turns out to be inaccurate. In order to classify the underlying cause of death more accurately, KOSTAT collected and linked

22 types of administrative data.⁶ This way, the cause of death in Korea can be more accurately determined by analyzing not only the death certificate but also medical examination records. This is made possible through the regular collection of various types of administrative data and the ability to link various databases at the individual level (Figure 1).

The collection of administrative data is specified by national statistical law (Figure 2). In addition, most administrative data in Korea includes resident registration numbers, making it possible to link personal data.

Figure 1: The process of cause-of-death statistics collection in Korea.



6 Health insurance data from the National Health Insurance Service, cancer register from the National Cancer Center, criminal investigation records and traffic accident investigation data from the National Police Agency, autopsy records from the National Forensic Service, emergency records from the National Emergency Medical Center, etc.

Figure 2: Republic of South Korea *Statistics Act*.⁷

Article 24 (Provision of Administrative Data)

(1) If necessary for the production of statistics, the head of a central administrative agency or the head of a local government may request the head of a public institution to provide administrative data.

(2) When the head of a public institution is requested to provide administrative data pursuant to paragraph (1), he/she shall comply therewith unless there is good cause prescribed by Presidential Decree, such as the disclosure, etc. of national secrets or important secrets of individuals or enterprises.

(3) Where administrative data are provided under paragraph (2), the head of a requesting agency and the head of a providing institution shall consult on and determine the scope, method, etc. of the provision, and the head of a providing institution may limit the method of use, departments that can use such data or other necessary matters in order to protect the information of individuals, corporations, organizations, etc. included in the administrative data, or may request the requesting agency to devise necessary measures to ensure the safety of administrative data (hereinafter referred to as "information protection measures").

(4) The administrative data provided by public institutions pursuant to paragraph (2) shall not be used for any purpose other than the production of statistics, nor shall it be provided to other persons.

(5) Where the head of a requesting agency fails to take the information protection measures that is requested under paragraph (3) or violates paragraph (4), the head of an institution providing administrative data may suspend or limit the provision of data.

Article 24-2 (Provision of Data by Judicial Agencies, etc.)

(1) Where it is necessary for the production of statistics, the Commissioner of the Statistics Korea may request the Minister of the National Court Administration to provide digital data on the registration of family relations.

(2) Where it is necessary for the production of statistics, the Commissioner of the Statistics Korea may request the Commissioner General of the Korean National Police Agency and the Commissioner of the Korea Coast Guard to provide information on criminal justice related to statistics on the causes of death.

(3) Article 24 (2) through (5) shall apply *mutatis mutandis* to matters necessary for the provision of data under paragraphs (1) and (2).

(4) The Commissioner of the Statistics Korea shall produce statistics (hereinafter referred to as "vital statistics") to identify demographic changes such as birth, death, marriage and divorce, based on the following data:

1. Digital data on the registration of family relations under paragraph (1);
2. Other data prescribed by Presidential Decree, such as data prepared and submitted by a reporting party at the time of reporting matters such as birth, death, marriage and divorce under other Acts.

(5) The scope of data for which provision can be requested pursuant to paragraph (1) and matters such as the scope and method of conducting a survey for production of the vital statistics under paragraph (4) shall be prescribed by Presidential Decree.

7 kostat.go.kr/portal/english/img_eng/03/StatisticsAct_2011.pdf

Korea has a strong CRVS system, but it is known that registration omissions occur more often among specific populations and in specific situations. For example, there is under-registration of both births and deaths of infants who die in the very early neonatal period (within 24 hours of birth) and also among abandoned infants. In these cases, other data sources are able to supplement the larger database generated from the 22 linked administrative datasets. For instance, data on infant, maternal, and fetal deaths is collected from medical institutions through an online platform. In addition, the database is supplemented by crematorium reports and data on deaths among the homeless and persons without relatives supplement the database.

In Korea, the first confirmed cases of COVID-19 occurred on 20 January 2020 and the first death occurred on 19 February 2020. Based on this, the starting point for the analysis of excess deaths was set as the first week in 2020. Excess deaths can also be analyzed on a monthly basis, but the dynamic nature of the current pandemic makes the more detailed, weekly temporal perspective especially useful.

Excess deaths analyses compare expected with observed deaths in a given time period. Generally, establishing the expected number of deaths involves generating an average number of deaths according to recent historic data and estimating the distribution of the number of deaths in the past. However, we used the maximum number of deaths in the past three years to set our weekly expected number of deaths. The reason for this is to account for Korea's large elderly population that is especially vulnerable to extreme cold weather-related deaths and the fact that the number of deaths in the country is increasing due to the rapidly aging population.



Photo: Ketut Subiyanto / Pexels

The number of deaths and crude death rate⁸ have been increasing since 2005 (Figure 3). In 2019, there were 295,100 deaths, a 19.5 percent increase from 2009. Also in 2019, 47 percent of all deaths were among those 80 years old and over, which was 14.8 percentage points more than in 2009 (Figure 4).

Figure 5 compares the number of deaths over 10 years in May and September, both relatively mild months in Korea with few climatic factors affecting mortality and thus more stable estimates of deaths. This decade-long perspective demonstrates an increase in the number of deaths with time, reflecting the aging population.

In contrast, the cold wave that occurs during January and February impacts mortality, especially among the elderly. Figure 6 shows peaks in the number of deaths in February 2012 and January 2018, reflecting record-breaking cold waves that gripped the country at the time. In early February 2020, amid the pandemic, Korea experienced lower-than-average temperatures, which is expected to have had some impact on deaths.

8 The total number of deaths per year per 100,000 population.

Figure 3: Number of deaths and crude death rate from 1983 to 2019 in Korea.

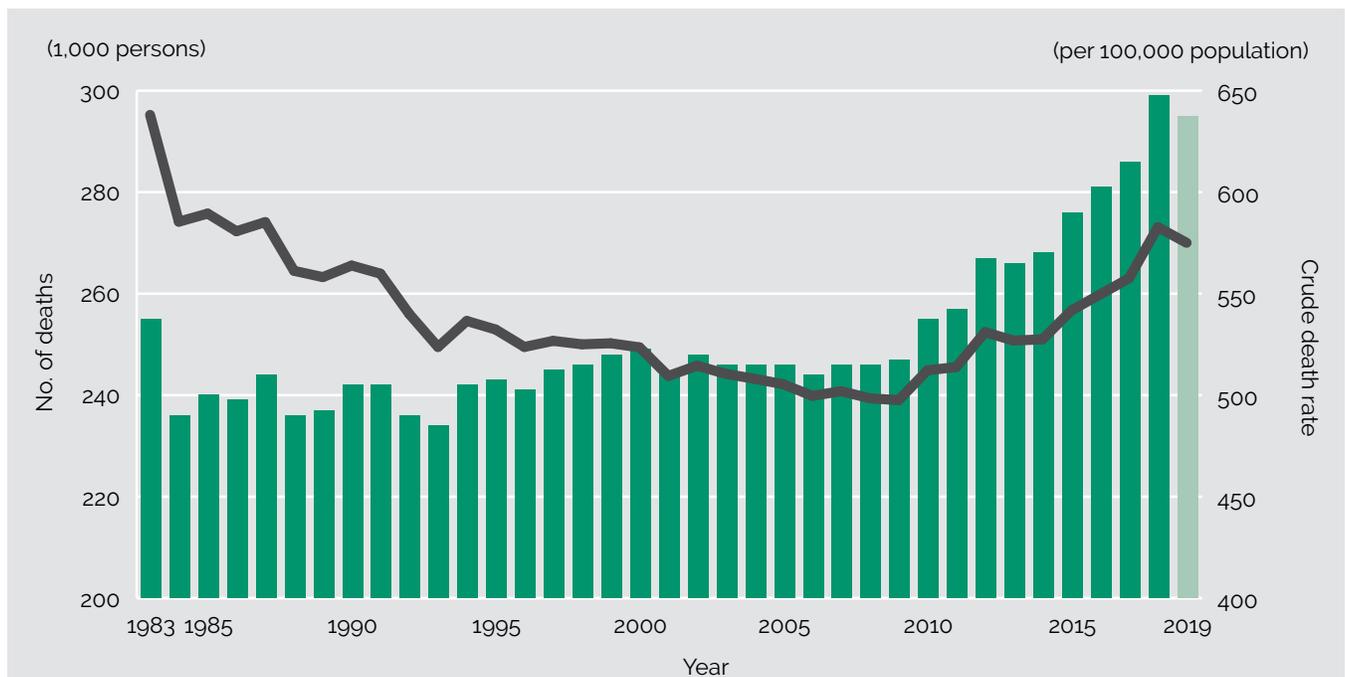


Figure 4: Proportion of deaths in Korea, by age group.

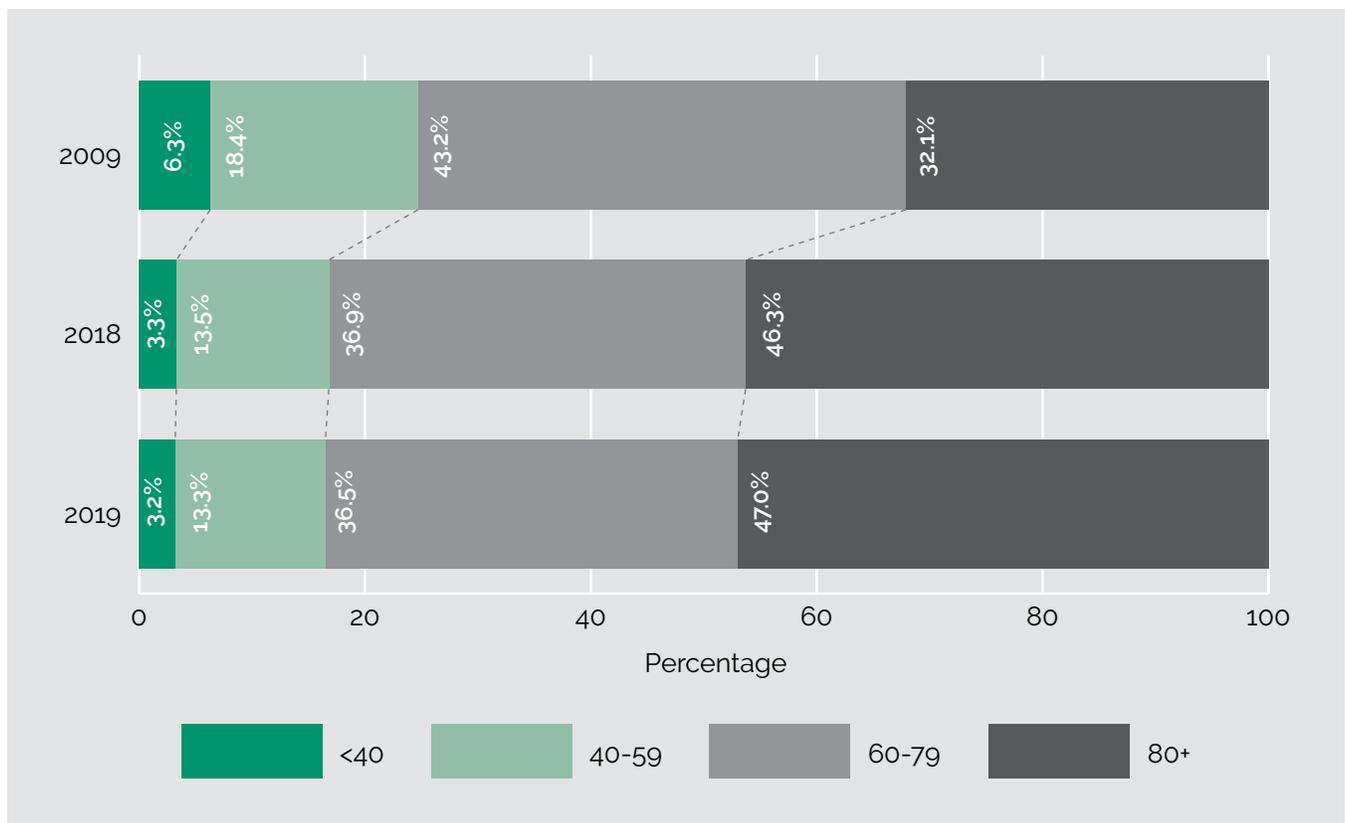
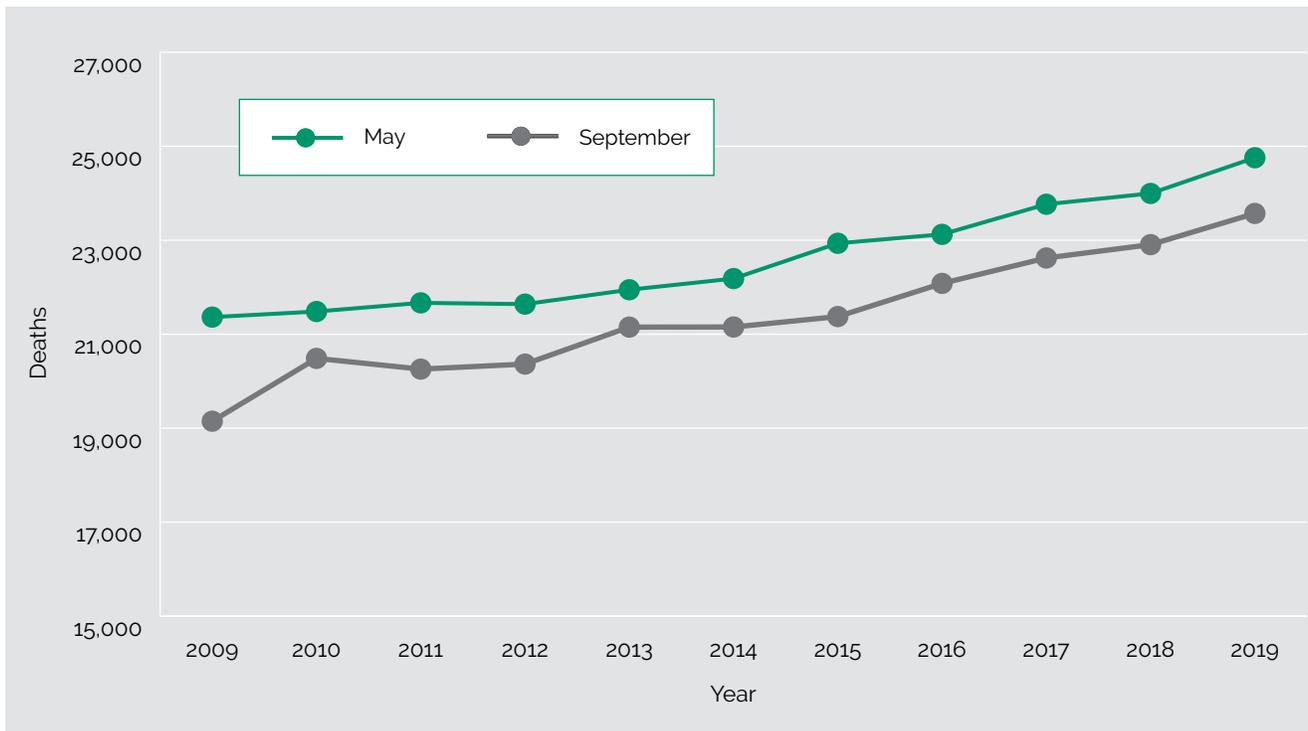
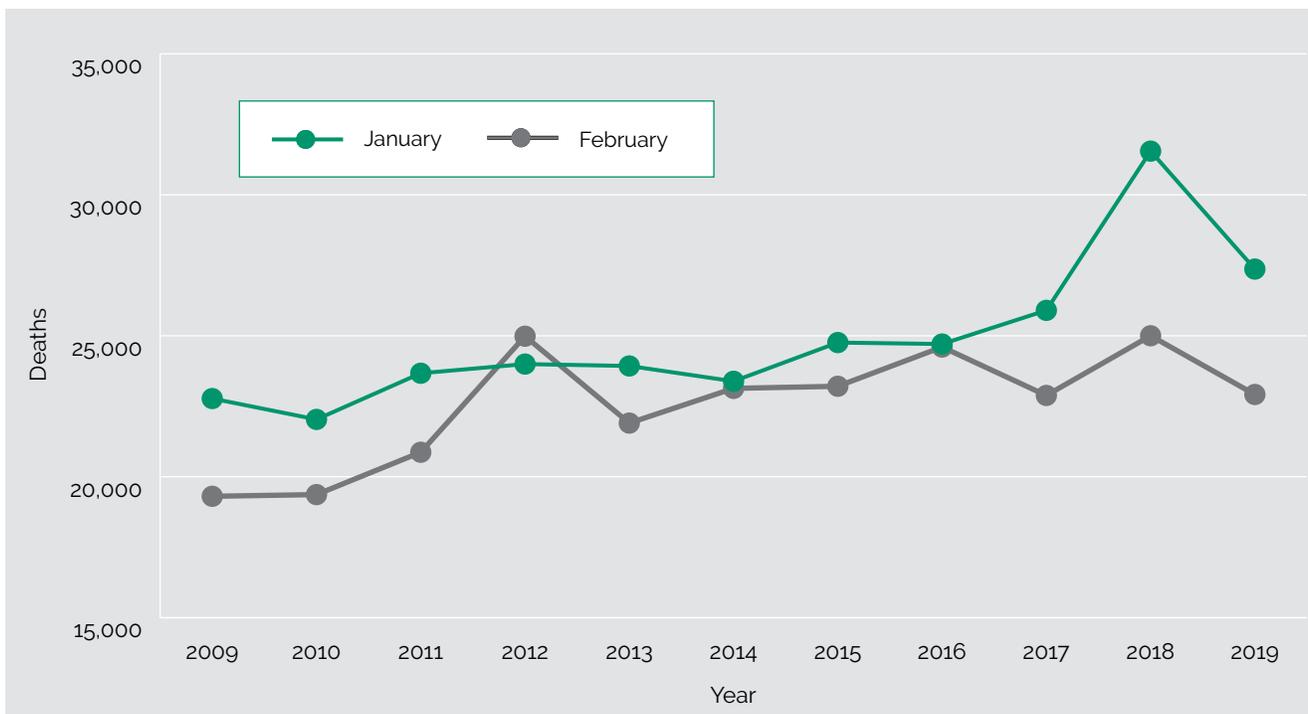


Figure 5: Number of deaths per month in May and September from 2009 to 2019.**Figure 6:** Number of deaths per month in January and February from 2009 to 2019.

In countries like Korea, where population aging is rapidly progressing or where mortality is greatly impacted by extreme weather events, mortality averages and distributions based on historic data can cause inaccuracies in estimating excess deaths.

EXCESS DEATHS IN KOREA DURING THE COVID-19 PANDEMIC

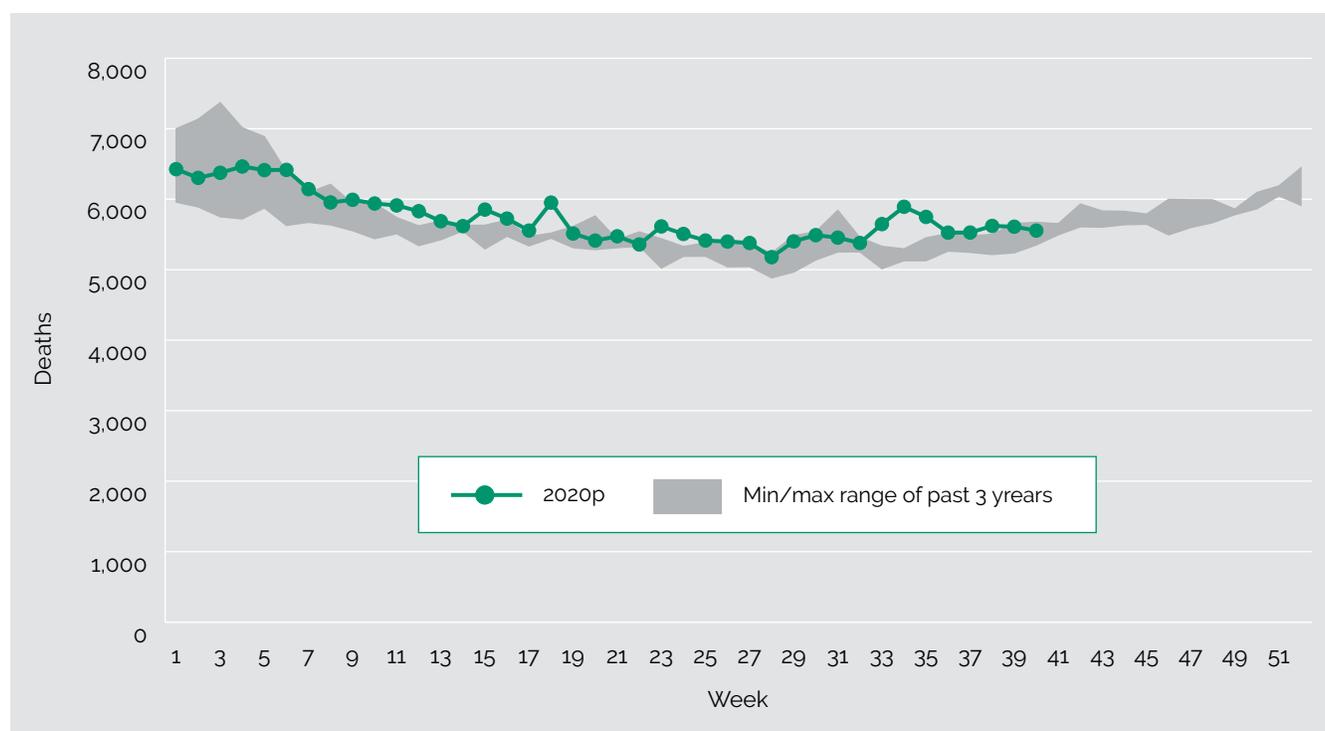
Deaths registered by week

In observing total mortality, a continuous trend of excess deaths was not found in Korea since the beginning of the COVID-19 pandemic (Figure 7). The number of registered deaths until the 39th week of 2020 was 224,106, which is 6,577 (3 percent) deaths more than in 2019. The number of deaths in weeks 11–12 (381 deaths), weeks

15–18 (761 deaths), weeks 23–25 (386 deaths), and weeks 33–38 (1,389 deaths) exceeded the maximum number of deaths for the same week over the past three years.

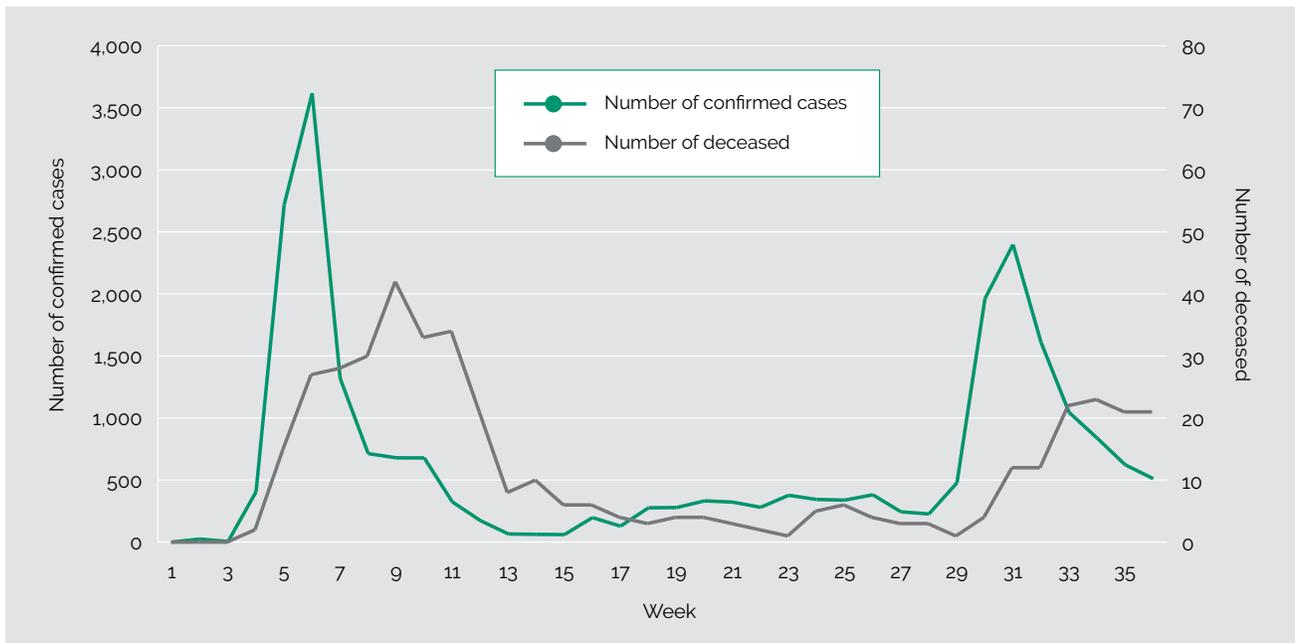
As shown in Figure 8, there were two spreads of COVID-19 in Korea in 2020. The number of COVID-19 confirmed cases was large at 10 and 35 weeks. In both periods, the number of deaths increased 2 to 3 weeks after the increase in the number of confirmed cases. The spread in the 10th week did not have a significant effect on the excess mortality, while the spread in the 35th week had a slight effect on the excess deaths. In particular, Korea's excess deaths were not identified during weeks 9–13 of the first wave of the outbreak, but they appeared similar to the number of confirmed cases in the second wave, during weeks 34–37.

Figure 7: Deaths registered by week (updated 12 November 2020).



Note: The number of deaths in 2019 and 2020 is provisional data.

Figure 8: Number of confirmed cases and deaths due to COVID-19 in Korea.



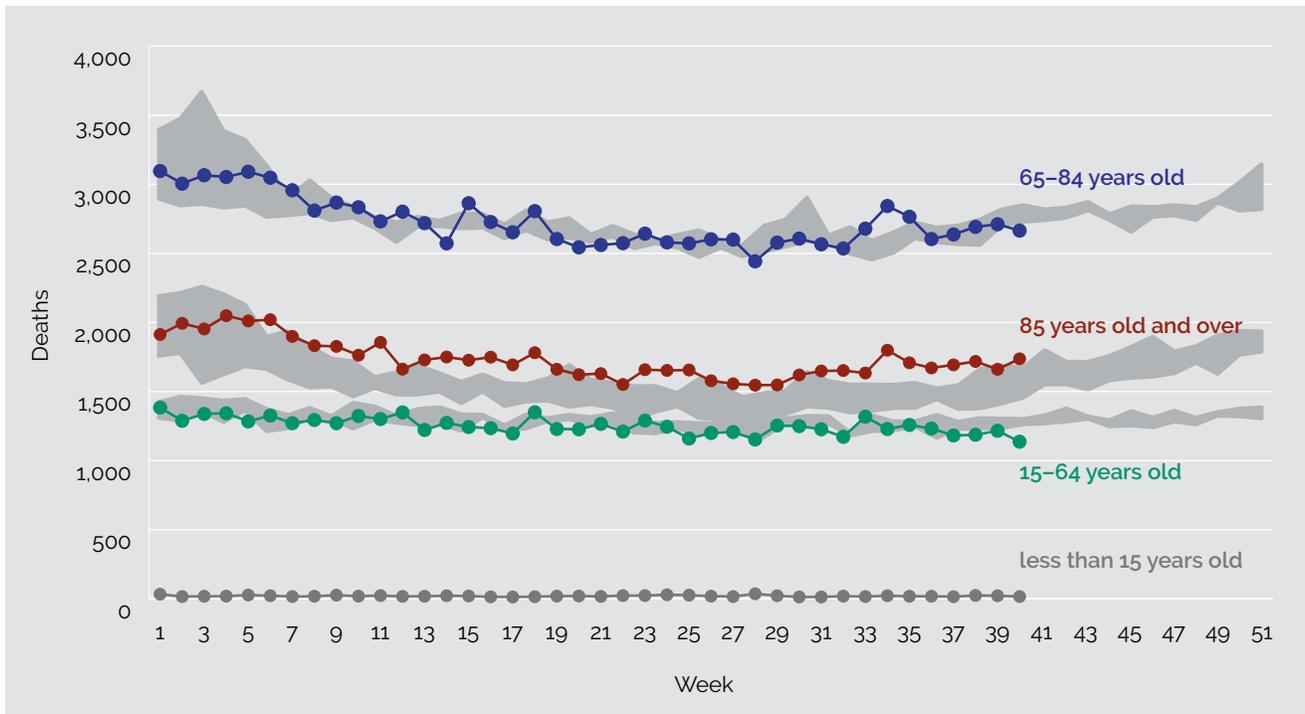
Source: kosis.kr/covid_eng/covid_index.do

Deaths registered by age group

The deaths of the elderly, aged 65 years and over, show a U-shaped distribution under the influence of cold weather, and significant changes in the

number of deaths occur due to abnormal weather conditions in a specific year. Excess deaths were relatively large among populations aged 85 and over (Figure 9).

Figure 9: Deaths registered by age (updated 12 November 2020).





Deaths registered by sex

There was no significant difference in excess deaths between men and women. Analysis by sex and age group was not done with the Korean data because low numbers could cause a bias. The weeks that showed an exceeding number of deaths compared with the maximum number of deaths over the past three years by sex were:

- Men: weeks 6–7, weeks 11–12, week 15, weeks 17–18, weeks 23–24, weeks 33–35
- Women: weeks 10–13, weeks 15–19, weeks 23–25, weeks 32–39 (Figure 10)

Figure 10: Deaths registered by sex (updated 12 November 2020).

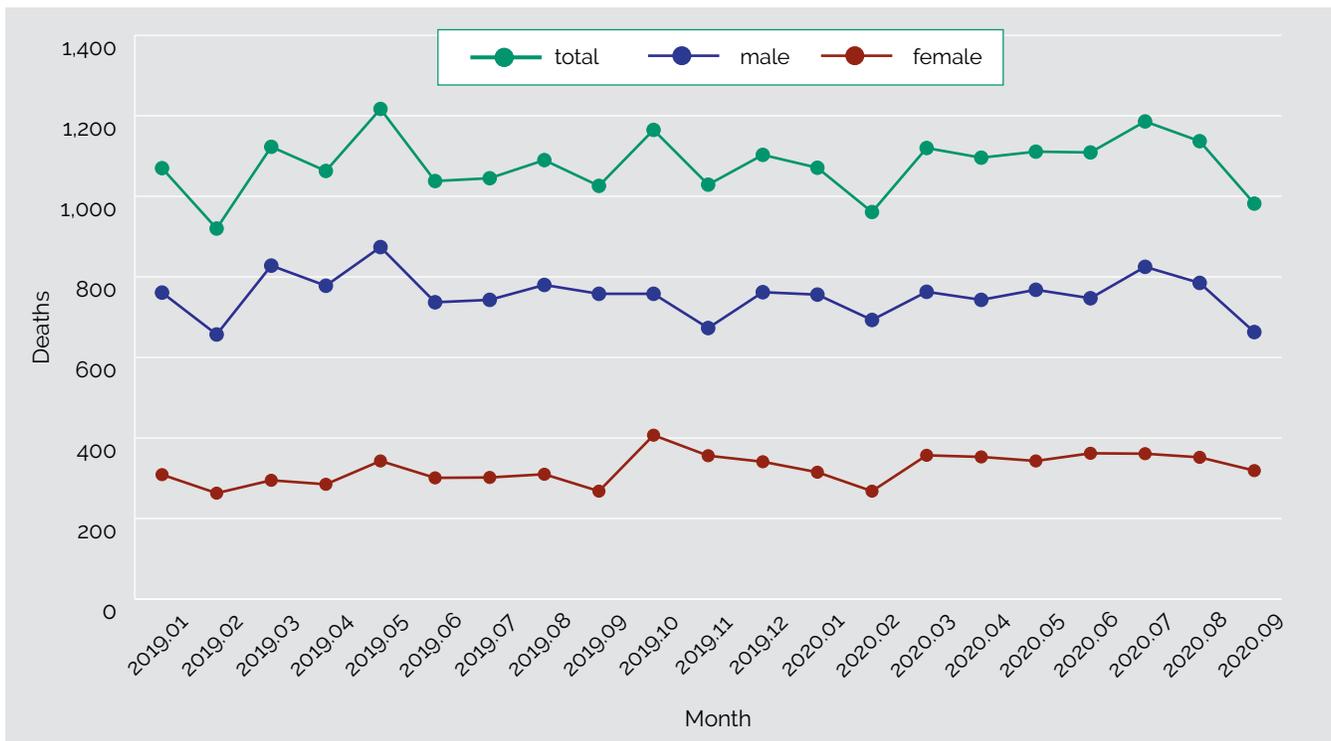


Provisional suicide deaths

The increased stress caused by COVID-19 can be a major social problem, a phenomenon called the “Corona blues” in Korea. In analyzing mortality during the pandemic, the number of deaths by suicide should also be considered. For deaths by suicide, KOSTAT links the death certificate with the police investigation record and provides provisional estimates for these deaths, two months after they occur. According to the results, no specific trend has been found in the number of suicides (Figure 11).



Figure 11: Number of deaths due to intentional self-harm.



Note: The number of deaths in 2020 is provisional data.

CONCLUSION

In situations like the COVID-19 pandemic, deaths can be both directly and indirectly linked to COVID-19. People may succumb to the virus, but other deaths will result from the lack of medical resources while they are being directed intensely toward the pandemic response. An analysis of excess deaths is an important tool for the government to ascertain the full impact of COVID-19 as it manifests in both direct and indirect mortality in the population. A robustly designed and operated CRVS system is necessary to generate accurate excess death statistics.

Completeness is one of the most important attributes of a robust CRVS system. High degrees of completeness and coverage are enabled by a legal underpinning that makes birth and death registration compulsory. For instance, high coverage and completeness can be facilitated by the legal requirement to register deaths within a specific timeframe after a death. A system in which medical institutions report deaths directly to the CRVS system can also advance this purpose. Finally, CRVS data quality can be improved by linking with other administrative datasets at the individual level.

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Documenting Life and Death:

Women's Experiences During Conflict in Syria and Iraq

by Martin Clutterbuck

INTRODUCTION

Registration of life and death in the midst of war or civil conflict poses a key challenge for civil registration and vital statistics (CRVS) systems.¹ Just as women, together with children, are typically disproportionately impacted by war, vital statistical information affecting them — such as birth, marriage, divorce, and death — is often not captured by those systems in times of war. Discriminatory laws and practices, lack of access to information and civil registries, and patriarchal norms and values conspire to exclude women from systems whose aim should be to protect all members of the population equally.²

This paper focuses on the experiences of women in two countries savaged by protracted conflict in recent times: Iraq and Syria. Conflict in Syria starting in 2011 and Iraq as of 2014 has placed enormous pressure on the ability of families to register and have their life events certified. Women are especially impacted because they have often lost spouses during the fighting, resulting in reduced family and income support. These women are required to prove the whereabouts or identity (or both) of missing husbands to obtain nationality and legal identity

for the children from those relationships. The security situation limits the ability of women to travel to government offices to register family events and access services. At a time when they are required to shoulder additional responsibilities, the impact of paternalistic laws and cultural practices has reduced their ability to do so.

BACKGROUND

Civil registration systems in many countries are well established and rigorous, but bureaucratic and inflexible. They are often insufficiently adaptable to the challenges presented by large-scale civil conflicts. This can include the reduced ability to process cases, such as those occurring in areas outside government control, as well as difficulties in dealing with the unusual and often tragic cases of war. Registry offices are often destroyed in times of war, resulting in the loss of valuable original records, frequently with no archives. This makes it even more difficult to obtain replacement documents, which may be contingent upon prerequisite records of events, such as marriage, held in the archives. For women marrying into their husband's family or with little knowledge of how and when previous documents were obtained, this can present extra hurdles.

1 CRVS systems are the official registry systems that are responsible for registering all births, marriages, deaths, and other events stipulated by law in a country and for compiling and disseminating vital statistics, including cause-of-death information. They may also register marriage and divorce.

2 UN CEDAW. 2010. [ohchr.org/english/bodies/cedaw/docs/cedaw-c-2010-47-gc2.pdf](https://www.ohchr.org/english/bodies/cedaw/docs/cedaw-c-2010-47-gc2.pdf)

The role that registration systems play in any society is pivotal for both the state and the citizenry. An accurate and functional system allows the state to plan and provide services. It also gives the state the capacity to confirm the identity and personal status of individuals and the overall size and demographic of the population. For individuals, registration systems provide legal recognition, which is the basis for the exercise of civil and political rights. They facilitate access to services and inclusion in the life of the country. Exclusion or non-recognition marginalizes individuals and deprives them of essential services. It sends a signal of not belonging. Conversely, such systems also act as a form of state-sanctioned control of women through familial registration in the name of the husband or by denying the ability to pass on nationality to children.

A combination of factors places extra pressure on women to register vital events during conflict at the same time as the risks are magnified. Possessing personal documentation takes on increased significance when documents are routinely needed to prove identity, cross checkpoints, and access life-saving and humanitarian services such as health care. Women typically assume even greater responsibility for the family during times of conflict, when men are often absent through conscription or active involvement in the conflict, searching for livelihood opportunities, or because of the men's disappearance, detention, or death. Conflicts restrict the social and economic life of the community. They also close schools and childcare centres, forcing families to remain at home. Women lie at the heart of family life and shoulder the bulk of family responsibilities, such as ensuring children are properly documented. Dealing with government authorities, a role

often held by men in patriarchal societies, is delegated to women. At the same time, women may have little experience with or exposure to such bureaucracies and face discrimination, social stigma, pressure, or even exploitation when assuming such roles in conservative cultures. Other factors widening the gender bias include discriminatory and paternalistic laws and practices, lower levels of possession of documents by women, and reduced rates of literacy.³

This takes place against a backdrop of violence, with ever-present dangers for conducting the daily business of life. The risks of harassment, violence, and sexual abuse are magnified for women in situations of a breakdown of law and order and in socially and politically polarized communities.⁴ To add to the mix, war and conflict present complicated circumstances that challenge existing registration systems. This includes increased numbers of deaths, missing persons, widows, orphaned children, children born out of wedlock, and families separated and displaced across or within borders.

A FRAMEWORK FOR THE PROTECTION OF WOMEN'S RIGHTS DURING CONFLICT

Special protections exist for women and children for equal access to civil documents, birth registration, and preservation of family links under international human rights and humanitarian law. These include general provisions on the need for women to be treated with due consideration and special respect because of their sex, along with special protections for pregnant women and mothers of young children.⁵ Specific requirements exist for the preservation of family links, including registration of deaths and transfer of information

3 NGO Field Report. 2019.

4 Hampton, K. 2019.

international-review.icrc.org/sites/default/files/pdf/1590391258/irc101_2/S1816383120000168a.pdf

5 Geneva Convention (GC) I, Art. 12(4); GC II, Art. 12(4); GC IV, Art. 14, 15; Additional Protocol I, Art. 76.

between families.⁶ Parties to the conflict are obliged to facilitate the registration of children, including confirmation of their parentage.

Ensuring access to civil documentation for all persons during times of conflict remains an immediate short-term responsibility for governments. Governments without access to the entire territory must do what they can to facilitate access to civil documentation. Occupying powers and non-state actors have responsibilities under human rights and humanitarian law to facilitate the issuance of basic identification documents in areas under their effective control.⁷

RESPONSIVENESS OF REGISTRATION SYSTEMS

While governments typically make some accommodation for the impact of conflict on civil registration, such as by amending procedures or making registry processes more accessible to displaced communities, such measures are often not proportionate to the need. Nor are they sufficiently adaptive to the conflict-related cases that arise, such as an increase in orphans, children born of rape, or high numbers of missing persons. Laws and procedures that may have been discriminatory but manageable for many women prior to the conflict, such as laws requiring the presence of a male spouse or relative, become onerous or impossible for many women during conflict. This is because male spouses are missing or deceased, families are separated and displaced, and active conflict continues. The requirement to deal with the civil registration office in the place of registered residence or origin is not realistic for persons who have fled those areas on account of conflict there.⁸ Furthermore, governments dealing with conflict are often



Photo: Mohamed Azakir / World Bank

suspicious, obstructionist, and discriminatory toward communities or individuals they perceive to be opposed to them.

GENDER BIAS AND THE PROTECTION OF WOMEN DURING CONFLICT

Access to responsive, accessible, and non-discriminatory procedures remains the first challenge. The second challenge, of equal or even greater significance, is gender bias and women's protection.

Protection risks for women occur at the generalized, community, familial, or individual levels. Women who lack the protection of family (typically, male relatives) face heightened risk of violations such as assault, rape, and harassment during conflict. This can occur at any time, but also when travelling to government offices, crossing checkpoints, or accessing government or humanitarian services. The lack of protection *en route* is a major deterrent to the women's ability and willingness to access civil documentation.

6 Geneva Convention (GC) IV, Art. 27; GC I, Art. 16; GC IV, Art. 25.

7 Hampton, K. 2019.

international-review.icrc.org/sites/default/files/pdf/1590391258/irc101_2/S1816383120000168a.pdf

8 Norwegian Refugee Council (NRC). 2019b. nrc.no/resources/reports/paperless-people-of-post-conflict-iraq/#:~:text=During%20the%20conflict%20with%20the,people%20still%20live%20in%20displacement

At a cultural level, women in conservative or patriarchal societies may often be harassed, stigmatized, or simply prevented from travelling freely to register life events or access documents, even when such documents are necessary for the wellbeing of the family — a universally accepted cultural norm. Such gender bias can be entrenched in traditional norms that prescribe the role of women within society by religious values or by specific community practices. The bias may operate at a national level or with variations at local levels. Increasingly, areas under the control of religiously conservative groups are imposing strict limits on the role of women in moving freely or in public life.

Family pressures, ever present for women, may be exacerbated by the stress of conflict or by life events occasioned by conflict. Rates of widowhood and divorce typically increase during conflict, necessitating a change in family status. A widowed woman with children and without male or extended family support may face extreme familial pressure when deciding whether to remarry, especially if this would entail losing custody of children from the previous relationship. At an individual level, the pressures on women are enormous. The decision to seek a missing persons declaration for a long-absent husband or to try and register a child born out of wedlock or as a result of rape have enormous personal implications and lifelong consequences.⁹ Women with children born outside of marriage, regardless of the circumstances, may face serious repercussions from family or within the community, including honour killing or societal ostracism.

A major barrier for access to civil documents and the associated rights is the lower rates of

possession of those documents by women. Not only are women less likely to obtain documents, they are less likely to have control of the documents. In cases of divorce or separation, husbands may take important documents, leaving women vulnerable without proof of identity or marriage documents. Documents are sometimes used as a weapon of control. Some of the most vulnerable categories of women include women in unregistered second or subsequent marriages, including those with children born of those relationships. Women with intersectional needs, such as women with disabilities, women from minority groups, or those with alleged familial political affiliation, feel the weight of double disadvantage.

The following examples from conflicts in Iraq and Syria illustrate the challenges for women to register vital events when seeking to protect their family life. These examples highlight the interconnected relationship between law, conflict, and culture.

CHALLENGES FOR WOMEN IN IRAQ

The situation in Iraq is emblematic of challenges women in conflict face in registering vital events. The mass and multiple displacement of six million Iraqi civilians between 2014 and 2017, as well as the deaths of between 29,000 to 67,000 civilians during the conflict with ISIS have had a staggering impact on women.^{10,11} The imposition of harsh rules severely limiting the freedoms of women in areas controlled by ISIS when tens of thousands of male family members were lost both emphasized and reduced the role of males, thus placing women in an invidious position. They assumed greater external responsibility for family with reduced external power to care for family,

9 Yakinthou, C. 2015. [ictj.org/sites/default/files/ICTJ-Lebanon-Gender-Disappearance-2015.pdf](https://www.ictj.org/sites/default/files/ICTJ-Lebanon-Gender-Disappearance-2015.pdf)

10 Iraq Body Count. 2020. iraqbodycount.org/database/

11 See also NRC 2019a, which uses estimates based on UN Casualty Figures for Iraq for August 2017, and The Statistics Portal: Number of Documented Civilian Deaths in the Iraq war from 2003 to February 2019.

such as through representing the family publicly with government officials and local leaders. Post-ISIS, women have borne the brunt of this legacy.¹²

LOSS OF DOCUMENTS AND THE IMPACT ON WOMEN

Women are seen within Iraqi society as having primary responsibility for family and home, but with a limited public role.¹³ At a time of displacement of families from homes, this places enormous additional stress on women to find alternative accommodation in camps, rental accommodations, with relatives, or as widows returning home. In this highly centralized and regulated state, the possession of documents is vital for women — to prove identity and family linkages, to access services, and to cross checkpoints. For authorities, documentation is a key means of identifying those who may be considered a security risk. The United Nations has identified obtaining new documents or replacing destroyed or lost documents as a key humanitarian need in Iraq.¹⁴ In 2019, it was estimated that up to 80,000 families across Iraq have family members missing at least one form of document.¹⁵ Parents missing documents are more likely to have unregistered children. At least 45,000 children in displacement camps are estimated to be without birth certificates, putting them at risk of becoming stateless.¹⁶ Estimates of civilian deaths during the conflict with ISIS vary. It is unclear how many deaths have been proven and death certificates obtained, particularly

as deaths in Iraq are often registered purely for pragmatic purposes, such as for initiating inheritance proceedings.

Documents are missing for various reasons. ISIS confiscated civil IDs, nationality cards, and other state-issued documents in areas under its control, replacing them with ISIS documents that Iraqi authorities consider invalid. Persons scared of being found with the wrong type of documents (such as ISIS-issued documents) also lost or deliberately destroyed these documents during the conflict. Such situations create impossible dilemmas for civilians who are damned for both possession and non-possession of documents. Displaced men and women had their documents confiscated by Iraqi security actors and intelligence officials after fleeing ISIS-controlled areas and arriving in displacement camps, leaving them with nothing to prove their identity inside the camps.^{17,18}

The absence of documents causes problems in almost every aspect of life. Travel becomes nearly impossible. While women without documents can give birth in public hospitals, birth certificates will not be issued without the civil ID of both parents. Some women have consequently chosen to give birth at home, placing them and their child at risk in the event of birth complications. Without a birth certificate, children are unable to obtain vaccinations. Further, if a birth certificate is not issued within 40 days of the birth, parents must go to court to obtain a proof of lineage document.¹⁹ A further significant consequence is exclusion from

12 San Pedro, P. 2019.

oxfamlibrary.openrepository.com/bitstream/handle/10546/620690/bp-women-in-conflict-zones-290319-en.pdf

13 Dietrich, C. 2017.

reliefweb.int/sites/reliefweb.int/files/resources/rr-gender-conflict-isis-affected-iraq-300517-en.pdf

14 United Nations (UN). 2020. reliefweb.int/sites/reliefweb.int/files/resources/iraq_hno_2020.pdf

15 NRC. 2019a. nrc.no/resources/reports/barriers-from-birth/

16 Ibid.

17 San Pedro, P. 2019.

18 NRC. 2019a.

19 Ibid.



Photo: Mohamed Azakir / World Bank

the government's Public Distribution Scheme, a type of government social assistance that provides a basic food ration for all citizens below a certain income level. Access to humanitarian assistance requires civil documentation. This pushes those victims of war without documents, or those who are unable to obtain documents because of perceived political affiliation, further into marginalization and poverty.²⁰

Since the end of operations against ISIS in Iraq, civil registry offices and courts have resumed full operations and have issued thousands of birth certificates and identity documents. Registry officials, in coordination with camp management and international/non-governmental organizations (I/NGOs), have conducted mobile visits to internally displaced people (IDP) camps in some areas to assist beneficiaries in obtaining documents. In situations in which beneficiaries are fearful of returning to their place of origin to obtain replacement documents, NGO lawyers have helped coordinate with registry offices. While authorities do not accept ISIS-issued documentation as proof of the occurrence of events, they have relied upon witness evidence

from parents and relatives, combined with medical reports with estimates of age, to retrospectively issue birth certificates. Despite these measures, efforts to resolve complex cases have remained limited. Of an estimated 45,000 children without birth certificates throughout Iraq, officials reported on the issuance of 168 identity documents in 2019 to orphans, children of unknown parentage, street children, and children with disabilities).²¹

THE CASE OF THE MISSING HUSBAND

The Iraqi Constitution makes it clear that all Iraqis are equal before the law without discrimination based on gender, race, ethnicity, nationality, origin, colour, religion, sect, belief or opinion, or economic or social status.²² However, this is not reflected in practice. Under Iraqi law, nationality can be derived either paternally or maternally. In practice, Iraqi authorities require confirmation of Iraqi paternal legal identity before processing applications for birth, nationality, or citizenship certificates. In accordance with Iraq's *Personal Status Law*, lineage is passed through marriage, highlighting the significance of marriage certificates.

While Iraqi courts and civil registry offices have been active in the issuance of thousands of new and replacement documents, the patriarchal nature of Iraqi law, practice, and culture punishes women whose husband has gone missing in the conflict. Intense suspicion surrounds women who are unable to prove the whereabouts of their husband. Women are also tagged with the alleged political opinion of their husband. Renewal, reissuance, or updating of a woman's ID card is not possible where a male relative is included on the national security database or any of the "wanted lists" that security actors or government-

²⁰ NRC. 2019b.

²¹ UN. 2019b. undocs.org/A/HRC/WG.6/34/IRQ/1

²² Iraqi Constitution 2005, Art. 14.

linked militias maintain.²³ Criteria for inclusion on the lists are not available; there are widespread concerns that much of the information is arbitrary, unverified, or inconsistently applied. Nor can decisions to include someone on a list be appealed or challenged.²⁴ Further, "[t]he risks of community stigmatisation, isolation, and exclusion are amplified for female-headed households, who often lack strong community support networks to navigate potentially hostile environments."²⁵

An option that exists, at least in some parts of the country, is the flawed and discriminatory *Tabriya* process. Under this process, women make a statement to the court setting out the alleged criminal acts of their husband during ISIS control to formally absolve themselves of responsibility for their husband's actions and facilitate their own readmission to the community.²⁶ Rather than being considered independent agents with their own views and beliefs, women are treated as the shadow of their husband or male family member.

Obtaining documents in Iraq typically requires women to possess a chain of prerequisite documents evidencing earlier events. For example, to obtain a birth certificate for a child whose father is missing, women must prove the identity and whereabouts of the father and present a marriage certificate or proof of marriage. Applications will be refused if the father is included on a security clearance list. This turns the typically straightforward process of obtaining a birth certificate into a protracted and costly bureaucratic nightmare.^{27,28} Up to one-third of previously unmarried Iraqi women living under ISIS-controlled areas are estimated to have married in ISIS controlled areas, so the problem

is sizeable. Iraqi authorities do not consider ISIS-issued documents, including marriage certificates, valid, so these marriages must be retrospectively validated. This requires both parties to have valid civil IDs and to produce witnesses who can confirm the existence of the marriage before an Iraqi Personal Status Court. Only then can the marital status of the parties be updated on their national IDs and a birth certificate issued for a child of the relationship.²⁹ Such formalized processes are ill suited to situations where the husband is missing or no witnesses are available who are prepared to testify to the relationship.

The process for obtaining a death certificate or missing person declaration is extremely stressful for women, involving not only a complex process that authorities view with high levels of suspicion, but also difficult decisions at the family or community level as to whether to declare a husband missing. Yet obtaining a death or missing person declaration may be the only way to obtain a birth certificate for the child. It may also be the only way to allow women to obtain finality, claim inheritance, and move on with life, including the option of remarriage. Conversely, the decision to declare a spouse missing is intensely personal and may result in familial and community tensions and recriminations, particularly from the husband's family. There is a lot at stake.

Should the decision be taken to initiate missing person proceedings, an application must be made to the local police station involving two male or four female witnesses who must describe the circumstances under which the person went missing. A file is opened by the Criminal Investigations Court and the family is required

23 NRC. 2019a.

24 Ibid.

25 Ibid.

26 Wille, B. 2019. [hrw.org/news/2019/06/14/iraq-not-homecoming](https://www.hrw.org/news/2019/06/14/iraq-not-homecoming)

27 Human Rights Watch. 2018. [refworld.org/docid/5b39f196a.html](https://www.refworld.org/docid/5b39f196a.html)

28 NRC. 2019a.

29 Ibid.

to post a public notice of the missing person in local newspapers)³⁰. Approaching the police about a missing husband can raise suspicions about a possible ISIS affiliation and attract the adverse attention of authorities. Posting a public notice magnifies such suspicions throughout the community and is a step many fearful women are not prepared to take. Two years after the notification that a person is missing, relatives may request a death certificate from the Personal Status Court, although this can take much longer in practice.³¹ A process that would be typically viewed sympathetically by authorities, and perhaps even expedited — such as the issuance of a birth certificate for a child born in times of conflict and a missing person declaration for a husband — becomes a traumatic and politicized process for the widow. In the end, civil registration systems are only as strong as the rule of law systems that guarantee their legality and credibility. The effectiveness of the system is seriously compromised if women or children who are required to possess identity documentation under Iraqi law are unable to obtain those documents from Iraqi authorities.

Women and children who are unable to meet the documentary requirements are shut out of the system. This has real implications both for the affected persons and for society. Lack of civil registration denies basic services such as health care, education, movement, and social support. It also reduces a person to life on the margins. This, in turn, creates a cadre of undocumented persons in a parallel world with resultant risks for individuals and the state.³² This hidden stratum of society has no stake in complying with laws or social norms, as they are excluded from the benefits. It creates the perfect conditions for exploitation, abuse, crime, and extremism.

Simplifying and delinking civil registration processes from the status of the husband or father of a child would be important steps along the path to greater women's empowerment and agency. In cases where the father is not present, special expedited procedures should be put in place to facilitate the child's birth registration and the updating of the spouse's familial status. Such processes should acknowledge the right of women as independent agents, spouses, and mothers to register life events in their own right, without requiring the approval or endorsement of male relatives. Security clearances from husbands or male relatives should not be required for children's birth registration. Testimony provided by women about the occurrence of certain events, such as birth, paternity, or a husband's disappearance, at such hearings should be relied upon in the absence of countervailing information. Registration processes should be cognizant of the difficulties in proving life events in times of conflict and seek to reduce, not exacerbate, the trauma experienced by women separated from husbands or otherwise impacted by war.

In tandem with law and policy reforms, approaches that would work at a local cultural level are needed to stress the rights of all women and children in Iraq and promote shared values of inclusion, equality, dignity, and national reconciliation. This would be in line with government commitments to national strategies for the advancement of women, the national settlement initiative, and the establishment of a national agency to safeguard peaceful coexistence.³³ Such measures would also accord with the government's obligations under the UN Convention on the Elimination of All Forms of Discrimination Against Women to "modify the social and cultural patterns of conduct of men and

30 NRC. 2019b.

31 NRC. 2019a.

32 NRC. 2019b.

33 UN. 2019b.

women, with a view to achieving the elimination of prejudices and customary and all other practices" that are based on discrimination or stereotyped roles.³⁴ Close engagement between officials and tribal, religious, and civil society actors on realistic strategies for change would be an essential precondition. Agreements on reintegration and the need for issuance of basic documentation to undocumented children and vulnerable widows/spouses of missing persons would be a tangible first step.

CHALLENGES FOR WOMEN IN SYRIA

The ability of women to register critical life events in Syria remains compromised by the ongoing conflict and the different rules applied in the parts of the country outside government control. While Syrian law remains formally applicable throughout the entire country, civil registry offices do not operate in areas under non-government control. De facto authorities issue their own documents, which are not recognized by the government in Damascus. Possession of documents issued by such authorities may be necessary for practical purposes, such as movement within non-government areas or access to certain services, but may pose protection risks for holders as a perceived sign of support for such groups.³⁵ The entry of a birth by a non-state actor in a Family Book validly issued by the Government of Syria may invalidate the entire Family Book. Consequently, up to 58 percent of children living in non-government areas are estimated not to be registered in their Family Book.³⁶ As the overwhelming majority of persons living in non-government controlled areas are understood to want formal government-issued documents, this

presents a challenge.³⁷ Humanitarian assistance provided by local or international aid organizations is often also conditioned upon people having recognized civil documentation.

Death registration presents another challenge. With thousands of persons unaccounted for in Syria, large numbers of unidentified bodies, and a lack of medical evidence, obtaining proof of the death of family members can be difficult. This limits the ability to report and register such deaths. Furthermore, deaths may remain unregistered for other opportunistic reasons, such as using the ID of a deceased person and continuing to receive a pension despite the death of the pensioner.

CROSSING LINES

While persons in some areas are able to cross from non-government controlled into government-controlled areas to formally register life events such as births and obtain government-issued documents, this is simply not possible in other areas. Research suggests that only 29 percent of persons living in areas outside government control in northwest Syria are able to access government registries.³⁸ Crossing conflict lines is extremely risky. Up to 84 percent of respondents in field research conducted in non-government controlled areas cited concerns of approaching authorities as the cause of non-applications for documents.³⁹ Corruption and the demand for bribe payments to cross lines and access documents remain major barriers, while sexual exploitation is a significant risk for women. Other challenges include the arduous journey, the associated costs, and the dangers of being deceived and extorted by smugglers. This perfect

34 UN Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW). Art. 5(a).

35 NGO Field Report. 2019.

36 Ibid.

37 Ibid.

38 Ibid.

39 UN. 2019c. hno-syria.org/#resources

storm results not only in the lack of personal documentation for many thousands of civilians, but also in desperate measures to try and obtain vital documents.

In such situations,

"[t]he cumulative effect of the legal and civil documentation crisis has been a growing reliance of Syrians on risky coping mechanisms, including the use of fraudulent documents, adoption of false identities, payment of bribes, hiring of intermediaries and even crossing through lines of conflict themselves. The strong preference for GoS [Government of Syria]-issued documentation and concerns related to documents issued by non-state actors have frequently forced Syrians to weigh and ultimately accept the lesser of two evils—assume considerable expense and physical dangers in seeking GoS-issued documents or simply remain undocumented."^{40,41}

Men of the mandatory conscription ages of 18 to 42 in Syria face risks of detention when crossing lines to obtain identity documents.⁴² As a result, women are often tasked with this difficult and dangerous role. They are seen as less involved in active conflict and a lower security risk. As a result, the belief is that they are more easily able to cross checkpoints to access government registries.⁴³ However, this raises new protection risks. Women are reported to have been targeted for abuse by all sides as a form of punishment for wanted male relatives, with reports of arrests, detention, extortion, and kidnapping

at checkpoints, along with reports of rape and sexual violence.⁴⁴ To compound the risks, many armed groups are conservative, and freedom of movement is extremely limited. Women are often not able to move freely without a male relative.⁴⁵ In the past, children could be registered without being physically present, but new measures require the presence of children at the registry office together with at least one parent. This means parents must cross lines with very young children.

Even after crossing lines, the process of approaching civil registry offices to apply for civil documentation on behalf of family members is a formidable one for many women. Available information indicates that males obtain the Family Book from civil registry offices in the overwhelming number of cases (86 percent), while the percentage of women is much lower (22 percent). The general lack of female staff in civil registry offices and Sharia courts, and overall "lower levels of education, literacy, income and document possession for women further compound their inability to exercise and enjoy their rights to civil documentation".⁴⁶ Despite the absence of legal discrimination in relation to the employment of women in government offices or courts, the number of women actually employed in civil registry offices is extremely low. Women are also likely to face difficult questions about the whereabouts of their husband when applying for birth certificates or updating the Family Book; they report feeling intimidated when taking on a role typically conducted by men.⁴⁷ With an estimated 4.7 percent of Syrian internally displaced (IDP)

40 NGO Field Report. 2018.

41 UN. 2019c.

42 NGO Field Report. 2018.

43 NGO Field Report. 2019.

44 UN. 2019c.

45 International Legal Assistance Consortium (ILAC). 2017. ilacnet.org/wp-content/uploads/2017/04/Syria2017.pdf

46 NGO Field Report. 2018.

47 Hampton, K. 2019.

households headed by women, these difficulties are likely to increase.⁴⁸ A legal literacy campaign for women on the rules, requirements, and processes for obtaining documents for different scenarios, such as birth, marriage, and death, would be a practical and effective contribution.

The challenges involved in crossing lines to register life events results in the underreporting of many events. Births and marriages are the events most likely to be reported, with Family Books being in great demand. Divorce and death are much less likely to be reported. Due to the uncertainty surrounding the whereabouts of long-absent spouses missing during the conflict, women often choose to separate or divorce on the basis of spousal absence "without acceptable justification"⁴⁹ rather than remarry on the basis of the death of their spouse. When divorces and subsequent marriages are not formally registered, children born of those relationships cannot obtain birth certificates or proof of identity. This enormously complicates family life and affects the rights of children. In some cases, parents who have not been able to register prerequisite events (marriage, divorce) have taken the drastic step of registering the birth of a child in the name of a family member or close relative to obtain the birth certificate. Such desperate measures have disastrous long-term implications for the child and parent, who face the risk of criminal proceedings for providing false information, loss of custody of a child registered in the name of other parents, or both.

Issuance of basic identification documentation to civilians is a necessary obligation for all actors in times of conflict.⁵⁰ This allows them to meet their human rights obligations to the affected population, including the rights to marry and



Photo: Salah Malkawi / UNDP

found a family, the right to birth registration, an identity and a nationality, and the right to preservation of family unity. Consistent with provisions under the Syrian Constitution to "protect and encourage marriage" and to "provide women with all opportunities enabling them to effectively and fully contribute to the political, economic, social and cultural life,"⁵¹ practical barriers to access civil registration procedures for women need to be identified and removed. This would include ensuring, for instance, that women who are able to cross lines are actively assisted in the registration of life events, including complex cases, without onerous and unrealistic evidentiary burdens.

LEGISLATIVE REFORM AND NORMATIVE CHANGE: A SYRIAN EXAMPLE

Situations of war and conflict can delay, but sometimes advance, legislative and normative changes, which result in improved gender equality and increased women's empowerment.

48 UN. 2019c.

49 *Syrian Personal Status Law*. Art. 108.

50 International Convention on Civil and Political Rights Art. 16, 24; Convention on the Rights of the Child Art. 7; Geneva Convention IV Art. 24, 50; see also Hampton 2019.

51 Syrian Constitution. 2012. Art. 20(1) and 23.



Photo: John Donnelly / World Bank

While conflict has a cataclysmic impact on family life and women's rights in general, it may also propel women into new roles of leadership or within public or economic life.⁵² In the absence of spouses, women will assume the role of head of the household with external decision-making responsibilities on issues related to the care, welfare, and upbringing of children as well as public management of family affairs. This newly acquired *de facto* role can advance normative change as it becomes both accepted and valued for women to lead family affairs in public life.

Such changes can occur within daily life through greater acceptance of an increased role for women in social, cultural, and religious practice or through changes to administrative and legislative practice at the government level, or both. It is hard to predict whether such changes are opportunistic and will be rolled back by pre-existing power structures at the first available opportunity or whether they can weather the storm and become the new normal. Such assessments are particularly difficult during times of conflict, which are battlegrounds of competing values and ideologies — political, cultural, religious, and secular.

Syrian law and practice offer an interesting case study through changes to the *Personal Status Law* while maintaining an overall legal framework that preserves male guardianship and lineage as key determinants of civil status and familial registration. In this aspect, Syrian law is common to many other legal frameworks within the region, including those of Jordan, Iraq, and Egypt.⁵³

SYRIA'S PERSONAL STATUS LAW

At the administrative level, a guide to civil registration and documentation jointly issued by the Government of Syria and the UN High Commissioner for Refugees in 2018 provides guidance on certain special cases, many of which have increased during conflict and have a particular impact on women. These include cases of children of unknown parentage, children born to Syrian mothers outside wedlock where the identity of the father is not known or not proven, children separated from family members, and the process for obtaining civil documents when civil registries in certain areas are not accessible.

At the legislative level, recent changes to Syria's *Personal Status Law* indicate an intention to reduce some areas of gender inequality, incrementally at least. Some of those changes are no doubt a response to the practical realities of an increased number of widows and fatherless children resulting from the conflict. However, some of the changes work at a deeper normative level. These place boys and girls on more equal footing and increase formal responsibilities for women and mothers.

The caveat is that some of these changes may not have been necessary if more fundamental reforms had been made earlier, such as the right of children to acquire nationality from either mother or father or the right of birth registration regardless of the parents' marital status. Such

⁵² Charles, L. and Denman, K. 2012. vc.bridgew.edu/jiws/vol13/iss5/17/

⁵³ Moghadam, V. 2004. jstor.org/stable/41603930?seq=1

changes would deal with many of the conflict-related registration issues arising in practice, most particularly those requiring proof of paternity. Conversely, changes of such significance may require deeper discussion and consultation to find the right balance or level of community acceptance.

In any event, the amendments that have been made to the *Personal Status Law* should not be discounted; they do advance women's rights in certain areas, such as age of marriage, divorce, and paternal consent. At the same time, they highlight problematic practices in need of further reform. While fathers or paternal grandfathers (in the absence of fathers) continue to have exclusive legal guardianship over children,⁵⁴ mothers are now permitted to act as "marriage guardians" in the case of underage marriage, an area that was previously an exclusively male domain.^{55,56} These changes draw attention to the unacceptably high rate of child marriage in Syria, a practice that has increased during the conflict. While girls could previously be married at age 13, subject to the approval of a Sharia judge, the age has now been raised to 15, in parity with boys. There remains a long way to go. The formal age of marriage for girls has been increased from 17 to 18, as is the case for boys under Syrian law.⁵⁷ Arguably, such changes could be dismissed as mere tinkering, while more fundamental male prerogatives remain in place in relation to guardianship, paternal derivation of citizenship, and even the

requirement of consent by an adult male family member to the marriage of an adult female. They may, however, presage subtle but significant changes at a practical level.

No doubt in response to the real dilemma of children born to Syrian mothers with fathers who are now deceased, missing, or otherwise absent, DNA testing has been introduced into Syrian law. While it is not available in cases of disputes over paternity between spouses, DNA testing can be ordered to prove paternity in other cases. In conflict-affected families where husbands are missing, this may provide a registration pathway for women. Not only can this prove paternity and familial lineage, but it may also result in the confirmation of Syrian nationality and inheritance rights for children.⁵⁸ Conversely, there are likely to be thousands of cases in which women are unable to prove the paternity of children or make use of DNA testing, leaving children without identity documentation and stateless.

Proof of marriage and formal registration is likely to be another massive challenge for Syrians who have married informally or in areas under the control of non-government actors. Lack of marriage registration makes it impossible to register the birth of children and to confirm their paternal identity, a prerequisite for confirmation of Syrian nationality. Marriage registration provides protection and serves as a legal basis for the rights of the female spouse and her

54 Guardianship should be distinguished from custody. While custody concerns the accommodation and daily care arrangements for the child, guardianship involves the broader issue of parental responsibility and decision-making. A non-custodial parent still has an important decision-making role in relation to the welfare arrangements for the child, schooling, religious instruction, and other matters related to the child's upbringing. In Syria, this can also extend to marriage arrangements for children under 18.

55 UNHCR and NRC. 2019.

56 In cases of underage marriage, the judge must conduct a judicial assessment to ensure that the girl or boy of 15 has the maturity and capacity to marry.

57 The capacity of children to provide full and informed consent to underage marriages is questionable. Some commentators, however, note the growing body of opinion that stresses the importance of taking into account the views of the child and holds that some children may have the necessary maturity and capacity to consent to a marriage in the same terms as an adult.

58 UNHCR and NRC. 2019.

children, including rights to inheritance.⁵⁹ Syria has traditionally permitted the retrospective registration of informal marriages, provided they do not contradict Syrian law. Documentary requirements are waived when children have been born of the relationship. New amendments require the judge to ensure that both parties understand the rules for marriage and divorce. While this is a positive protection, it introduces a new set of practical problems in cases where the husband is now missing.

Custody of children continues to reside with the mother,⁶⁰ although under changes to the *Personal Status Law*, the father can now act as custodian if the mother is unable or unwilling. However, problematic provisions remain, namely the rule that a mother loses custody of her children if she remarries. This places enormous pressure on widows. In a significant change, permission of both parents is required to take a child outside of Syria unless a judge declares it to be in the best interests of the child. Previously, only paternal consent was required: fathers could remove their children from Syria without the permission of the child's mother. Whether the capacity exists to consistently enforce such a law is a separate issue.

Despite changes and amendments, the Syrian civil registration and judicial systems are likely to struggle to properly recognize and register many key life events occurring to women during the conflict. Cases in which husbands and wives are both present are likely to be the easiest. Situations of separated or divorced women, widows, those with missing husbands, or those with children born out of wedlock, including as a result of rape, are likely to be the most difficult to resolve.

As is typical in times of conflict, women who are most vulnerable are likely to experience the greatest difficulties in protecting their rights and those of their children. Changes to the *Personal Status Law* may merely be the first of a series of necessary steps.

CONCLUSION

With record numbers of persons displaced due to emergency situations in 2020,⁶¹ it becomes increasingly important to ensure that women have access to civil registration and documents. Not only does the registration serve immediate needs, such as granting access to certain fundamental rights and ensuring basic levels of protection, but it is critical for holding families together and maximizing life opportunities in the medium and long term. If there is to be any chance of meeting Sustainable Development Goal (SDG) targets, change must be promoted at all levels.

The role of women in Iraq and Syria is inextricably connected with social, cultural, and religious norms; the relative weight of these issues will have a major bearing on the possibilities for change.^{62,63} Compelling arguments that can work at both a cultural and political level will need to be constructed to change the status quo. These should draw upon religious, cultural, and social norms, highlighting the critical role of women in family, community, and public life. They should also involve local community, religious, and tribal actors. Governments should be reminded of their normative change obligation under the UN Convention on the Elimination of All Forms of Discrimination Against Women to “take appropriate measures, including legislation, to modify or abolish existing laws, regulations,

59 NGO Report. 2019.

60 UNHCR and NRC. 2019.

61 UNHCR. 2020. [unhcr.org/en-au/figures-at-a-glance.html](https://www.unhcr.org/en-au/figures-at-a-glance.html)

62 Asaf, Y. 2017. doi.org/10.3390/socsci6030110

63 San Pedro, P. 2019.

customs and practices which constitute discrimination against women."⁶⁴ A regional example includes the United Nations Relief and Works Agency for Palestine Refugees in the Near East's practice of including all adult members of the household, including female spouses, on residential leases, rather than just the head of the household, who is typically male. This is done in a neutral way, but it empowers women and highlights equality of rights of residence in the family home.⁶⁵

As in many contexts, adversity begets opportunity. The timely and accurate registration of life events remains critical for governments affected by conflict. In such situations, authorities will increasingly need to rely upon alternative forms of evidence to ensure the proper collation of data concerning births, marriages, and deaths. This may include greater use of single-witness testimony and presumptive evidence in the absence of concrete proof of the occurrence of events, as well as simplified and fast-tracked procedures for complex scenarios with a massive impact on family, such as lack of birth registration.

Good practices from other contexts, including those in the region, can also be used. While neither Jordan nor Turkey is dealing with situations of conflict, both countries have had to adapt local systems to facilitate the registration of life events for Syrian refugees who are often without documents or proof of events that occurred in Syria. In the absence of original documents, Jordanian authorities will accept photocopies of relevant documents, which has massively increased the birth registration rate of Syrian refugees in Jordan. Turkey has issued a circular

simplifying the requirements for children born out of wedlock. Jordan has opened civil registries in the two main camps in Jordan to facilitate access to CRVS systems. Extensive networks of legal aid actors in both contexts ensure that refugees receive independent and professional assistance in helping register life events and resolving complex issues.⁶⁶

Meaningful change in Iraq and Syria requires increased recognition of the right and role of women to register vital events. Practical issues facing women must be identified and addressed. These include restrictions on freedom of movement, physical access to civil registries, and security and protection risks. Increased awareness about registration procedures and requirements would help women navigate unfamiliar and intimidating bureaucracies. In turn, procedures should be amended to take into account the difficulties women have in proving key events during conflict, such as birth, marriage, divorce, and death. Proof is difficult to obtain in times of war and the risk of opportunism or false information is high. Flexible and reasonable evidentiary procedures will mitigate many of these risks while maintaining minimum standards of proof. Even parties in active conflict are required to take appropriate measures to facilitate the registration of life events. Finally, legislative reform is a key tool for introducing normative change. While changes to underlying values and beliefs must be approached cautiously, conflict can sometimes act as a powerful catalyzing agent.

64 CEDAW. Art. 2(f).

65 UN Relief and Works Agency for Palestine Refugees in the Near East. 2017. Gender Champion Award Winners 2017. [unrwa.org/newsroom/features/bold-enough-create-change-co-signing-housing-units-supporting-senior-positions](https://www.unrwa.org/newsroom/features/bold-enough-create-change-co-signing-housing-units-supporting-senior-positions).

66 UNHCR. 2016. [refworld.org/pdfid/5829c32a4.pdf](https://www.refworld.org/pdfid/5829c32a4.pdf)

RECOMMENDATIONS

- 1. CRVS systems must be responsive to the difficulties faced by women in registering life events during conflict**, such as births, marriages, divorces, or death. This requires support for women in accessing registries, the recruitment of female registry staff, help with overcoming practical or logistical obstacles, and enhanced measures to deal with protection risks faced by women.
- 2. Women must be encouraged and empowered to register life events** in their own right and without the need for support from male relatives.
- 3. Women must be able to obtain civil documentation for themselves and their children** as fully independent and autonomous individuals and without being linked to imputed political or security affiliations of male relatives or requiring security clearances from such relatives.
- 4. Flexible procedures and alternative forms of evidence are necessary to ensure that women are able to register life events**, due to the difficulties in obtaining documentary or other evidence during conflict. Such measures should include simplified and expedited procedures that prioritize the available information and witness testimony.
- 5. Registration systems based on non-discriminatory laws** that allow birth registration regardless of marital status, and confirmation of birth identity and nationality from either parent, provide a stronger basis for the protection of the rights of the children of those relationships. Laws should be amended accordingly.
- 6. All actors should take opportunities to build on the increased leadership roles that women undertake during conflict** to promote normative change and gender equality.
- 7. CRVS systems should receive technical support and assistance** to allow them to better prioritize and register complicated conflict-related cases in the interests of fully accurate and up-to-date data.

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ANNEX 1: KEY ISSUES ON CIVIL REGISTRATION AND VITAL STATISTICS (CRVS) IN IRAQ AND SYRIA

CRVS Iraq	CRVS Syria
Civil registry offices are now operational again throughout all areas of the country, including in areas formerly occupied by ISIS. Registry offices continue to face a backlog on issuance of new or replacement documents.	Civil registry offices are operational in areas under government control. De facto authorities and/or opposition groups issue birth registration, marriage, and identification documents in areas outside of government control.
Many thousands of documents are estimated to have been destroyed during the conflict. CRVS systems were not fully digitized pre-conflict.	Many civil registry offices were destroyed and records lost during the conflict. CRVS systems were not fully digitized.
Up to 6 million civilians were displaced during the conflict from 2014 to 2017, with an estimated 67,000 civilian deaths. ⁶⁷	Up to 6 million civilians are currently displaced, with estimates of between 380,000 and 586,100 civilians killed between 2011 and 2020. ⁶⁸
Up to 45,000 Iraqi children in camps are estimated to be without birth registration or identity documentation. There are estimates of more than 80,000 households across Iraq with family members missing at least one form of civil documentation. ⁶⁹	21% of respondents in an NGO survey ⁷⁰ under the age of 5 were not listed in the Family Book and did not have a birth certificate or any proof of identity.
Up to one-third of women of marriageable age are estimated to have married in ISIS-controlled areas during the conflict. ⁷¹	In that same NGO survey, 29% of respondents stated that it was possible to obtain Government of Syria-issued documents in their present location, while 72% reported they could obtain documents issued by non-state entities locally. Meanwhile, 36% of respondents had managed to obtain a death certificate for a deceased household member.
Estimates of missing persons in Iraq over decades of conflict vary from 250,000 to 1 million. ⁷² Estimates of missing persons between 2014 and 2017 are upwards of 13,000, including more than 4,000 in Ninewa Governorate and more than 2,900 in Anbar Governorate. ⁷³	There are an estimated 98,000 missing or forcibly disappeared persons in Syria. ⁷⁴

67 Iraq Body Count. 2020. iraqbodycount.org/database/

68 The Syrian Observatory for Human Rights. 2019. syriahr.com/en/157193/

69 NRC. 2019b.

70 NGO Field Report. 2018.

71 Ibid.

72 International Commission on Missing Persons. 2020. icmp.int/where-we-work/middle-east-and-north-africa/iraq/

73 VOA News. 2017. voanews.com/middle-east/defeated-thousands-still-missing-iraq

74 Syrian Network for Human Rights. 2020. sn4hr.org/blog/2019/08/31/54185/

ANNEX 2: LEGAL AND SOCIAL OBSTACLES FOR WOMEN IN REGISTERING LIFE EVENTS

Legal	Social
Children cannot be registered without proof of paternal identity.	There is a lack of knowledge of and familiarity with procedures for obtaining documents. This is considered to be a male domain.
Nationality in Iraq and Syria is derived paternally.	Courts and registry offices are predominantly staffed by men.
Women in Iraq are required to prove the identity as well as the whereabouts of husbands who are missing to obtain birth certificates for children. If a husband is missing for more than two years, the wife may apply for a death certificate. However, she is still required to prove the identity of the father and provide proof of marriage and a security clearance for the husband to obtain a birth certificate.	It is easier for women than for males of conscription age to cross lines of fighting in Syria to access government registry offices. However, protection risks for women include security concerns and the risks of assault and sexual violence.
Proving the existence of a marriage that took place in a non-government controlled area of Syria is challenging, particularly if the husband is missing or is unable to attend a court in government-controlled areas.	There may be familial and social pressure not to remarry, including in cases in which the husband is presumed dead.

ANNEX 3: INTERNATIONAL LEGAL FRAMEWORK FOR THE PROTECTION OF WOMEN'S RIGHTS

Document	Provision
Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW)	Article 2 prohibits discrimination between men and women. Article 9 grants equal rights for the acquisition of nationality. Article 15 guarantees equality before the law. Article 16 requires equality in marriage and family relations.
CEDAW Committee General recommendation No. 30 on women in conflict prevention, conflict and post-conflict situations	Article 6 addresses the risk of statelessness for women and girls in conflict, such as in cases of a lack of proof of identity, discrimination, or inability to acquire or confer nationality.
UN Guiding Principles on Internal Displacement	Principle 20(3) notes the equal right of men and women to obtain necessary documentation during displacement.
Sustainable Development Goal no. 5.1	By 2030, end all forms of discrimination against women and girls.
Sustainable Development Goal no. 16.9	Provide legal identity for all, including birth registration, by 2030.
UN Security Council Resolution 1325	Protect women's rights during times of conflict and give them a voice during conflicts and peace building.
Geneva Convention IV	Specific requirements exist for the preservation of family links and transfer of information between families (Articles 25–26). Parties to the conflict are obliged to facilitate the registration of children, including confirmation of their parentage (Articles 24, 50).

ANNEX 4: REQUIREMENTS FOR BIRTH REGISTRATION, MARRIAGE CERTIFICATES, MISSING PERSONS DECLARATIONS, AND DEATH CERTIFICATES IN IRAQ AND SYRIA

Type of document	Iraq	Syria
Birth registration	Requires birth notification from doctor/hospital, civil ID for both parents, and marriage certificate and security clearance for parents. Births must be registered within 30 days or fines are payable.	Requires birth notification from doctor/hospital, mukhtar attestation, Family Book or civil ID for both parents, and marriage certificate and security clearance for parents. Births must be registered within 30 days or fines are payable as well as an administrative investigation (up to 12 months) or police report (over 12 months). Application must be made to the civil registry office where the father's civil records are kept or where the birth took place.
Marriage registration	Parties must appear before a judge in the Social Status Court and will be directed to obtain a medical report for each spouse. They will then return to the court with two witnesses and sign the marriage contract before the judge. Retrospective legalization of marriage is possible at the Personal Status Court with two witnesses and civil IDs of both parties.	<p>The following documents are required:</p> <ul style="list-style-type: none"> • Medical report for each spouse • ID cards and individual civil registry statements for both parties • Forms authenticated by the mukhtar/local municipality • Approval of legal guardians for first marriages of brides • Marriage license from the Military Service Department for men ages 18 to 42 <p>The documents are submitted to the religious court, which will certify the marriage contract subject to the presence of two witnesses, the bride's legal guardian, and agreement on the dowry. The court will send the marriage contract to the civil registry office for issuance of the marriage certificate. Retrospective legalization of marriage is possible in cases involving children.</p>
Divorce declaration	Divorces in Iraq must be validated in the Court of Personal Status. If the husband is absent, the wife is required to submit a guardianship certificate which documents the absence of the husband and the date of absence.	There are different types of divorce under Syrian law. The competent religious court will declare the divorce and send a copy of its decision to the civil registry office, which will issue the certificate.

ANNEX 4: REQUIREMENTS FOR BIRTH REGISTRATION, MARRIAGE CERTIFICATES, MISSING PERSONS DECLARATIONS, AND DEATH CERTIFICATES IN IRAQ AND SYRIA (CONTINUED)

Type of document	Iraq	Syria
Family Book	All personal data which is entered into the population registry is collected in a large family registry at the local population registration offices near the family's place of residence. Iraqis can obtain a copy of their entry in the family registry.	The applicant's ID card is required. The book is updated to include the female spouse upon marriage and any children of the marriage. The ID card of the spouse and the birth certificates of the children are required for them to be included in the book.
ID card	Issuance of an ID card requires the birth certificate of the child, an extract from the family registry confirming the birth, the ID card of the mother or father, and any other identity documents such as the Iraqi nationality certificate, the application form, and the housing card of the applicant.	Issuance of an ID card requires the Family Book and the ID of the mother or father. Persons over the age of 15 who have not previously obtained an ID card and whose identity is not verified by their legal guardian require an identification certification issued by the local mukhtar with two adult witnesses. Applications must be made by parents or close relatives at the civil registry office at which the family's records are kept or in their place of residence.
Missing person declaration	This requires an application to the local police station with statements from two male or four female witnesses setting out the circumstances of the disappearance. The Criminal Investigations Court will open a file; the family is required to place a public note in local newspapers advising of the person's disappearance. After two years, a relative can request the Personal Status Court to issue a declaration that the person is presumed dead.	This requires a police report and/or a request to the Ministry of Justice for missing civilians. After four years, a family member can apply to the Court of Personal Status for a declaration that the person is presumed dead. This requires <ul style="list-style-type: none"> • a police report • a personal statement from the applicant • entry and departure statements from the Ministry of Immigration confirming that the missing person has not left the country • two witness statements <p>The court decision can be taken to the civil registry office for the issuance of a death certificate.</p>

ANNEX 4: REQUIREMENTS FOR BIRTH REGISTRATION, MARRIAGE CERTIFICATES, MISSING PERSONS DECLARATIONS, AND DEATH CERTIFICATES IN IRAQ AND SYRIA (CONTINUED)

Type of document	Iraq	Syria
Death certificate	This requires proof of death, such as a medical certificate certifying the death. Death cannot be certified in the absence of the body.	The following are required: <ul style="list-style-type: none"> • Medical report by the doctor confirming the death • Medical attestation from the hospital or a mukhtar if death did not occur in a hospital, in addition to two witnesses • Family Book of the deceased • ID card of the deceased
Citizenship/nationality	While nationality can be acquired through either the father or the mother under the Iraqi Constitution, applicants must possess an Iraqi national ID card, which is heavily based on confirmation of paternal identity.	Nationality is derived paternally; applicants must prove their father is a Syrian. While nationality can technically derive from the mother when the identity of the father is unknown and the child is born in Syria, this provision is rarely implemented in practice due to social and legal repercussions.

Sources: Information provided by NRC staff working in Iraq and Syria; Landinfo 2014; NGO Field Report 2019; NRC 2019a; UNHCR 2018; UNHCR and Syrian Arab Republic 2018.

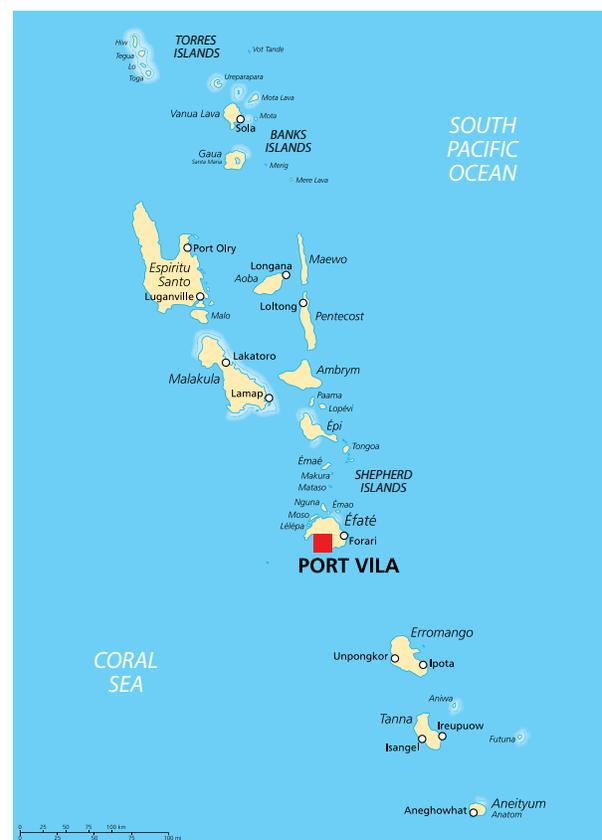
Mitigating the Impact of Natural Hazards on Civil Registration and Vital Statistics Systems: The Case of Vanuatu

by Gloria Mathenge, Benuel Lenge, Joemela Simeon, Carah Figueroa, Christine Linhart, and Ana Janet Sunga

SUMMARY

Sitting at the centre of the Pacific cyclone belt in the South Pacific, Vanuatu,¹ with a population of 272,459 (according to the last census, held in 2016), is considered to be one of the world's most vulnerable countries to natural hazards. Vanuatu² is recovering from the impact of the severe category 5 Tropical Cyclone Harold, which hit the country in April 2020 following Cyclone Tino in January 2020, Cyclone Oma in 2019, and Cyclone Pam in 2015. Vanuatu is also prone to and has experienced volcanic eruptions, earthquakes, storm surges, coastal flooding, and landslides. In addition to the saddening loss of lives, these disasters have had an important and direct impact on people's livelihoods (including civil registration officials) as well as on the government's infrastructure (including civil registration offices) and its capacity to maintain important functions during and after the crisis and in response to the crisis.

Figure 1: Map of Vanuatu.



- ¹ "Vanuatu, country in the southwestern Pacific Ocean, consisting of a chain of 13 principal and many smaller islands located about 500 miles (800 km) west of Fiji and 1,100 miles (1,770 km) east of Australia. The islands extend north-south for some 400 miles (650 km) in an irregular Y shape. The Torres Islands are the northernmost group. Southward from the Torres group, the main islands are Vanua Lava and Santa Maria (Gaua) in the Banks Islands group, Espiritu Santo, Aoba (Ambae), Maéwo, Pentecost, Malakula, Ambrym, Épi, Éfaté, Erromango, Tanna, and Anatom." [britannica.com/place/Vanuatu](https://www.britannica.com/place/Vanuatu)
- ² "The name 'Vanuatu' is an important aspect of national identity. Leaders of the Vanua'aku Party, which led the first independent government, invented the term in 1980 to replace the colonial name New Hebrides. Vanua means 'land' in many of Vanuatu's one hundred five languages, and translations of the new name include 'Our Land' and 'Abiding Land.'" [everyculture.com/To-Z/Vanuatu.html](https://www.everyculture.com/To-Z/Vanuatu.html)

This paper draws on Vanuatu's experiences to discuss the importance of civil registration and vital statistics (CRVS) systems and the challenges faced when these systems are implemented during disasters and emergencies. Measures to mitigate the impact of disasters on CRVS systems are also discussed.

HISTORICAL CONTEXT

Until 1980, Vanuatu (formerly the New Hebrides Condominium) was a joint colony of Britain and France; it was administered through an agreement that the two nations signed in 1906. Under the agreement,³ the Indigenous population was by default rendered stateless (neither French nor British citizens or subjects) and lacked all forms of citizenship⁴ and nationality. A notable discriminatory clause denied their rights to officially register births, deaths, and marriages, rights that other residents of the nation had. In 1945, the Condominium's British legal adviser, A. H. Egan, listed the discriminatory practices imposed on Indigenous New Hebrideans that resulted when the Condominium was organized.

"He [sic] [the indigenous New Hebridean] is subject to the orders of French as well as British officials. He may be punished administratively without trial. In various circumstances he is liable to be dealt with under four different systems of law—French, British, Condominium and native. His births, deaths and marriages are not officially registered. He is governed by native customs and tribal rules. His movements e.g. at night are restricted. He is not allowed to have or consume alcohol. There is no native civil code, and there is

no recognised legal way by which he can dispose of his property inter vivos or after death."⁵

New Hebrideans who travelled across international borders (mainly as miners in New Caledonia, in ships as merchant mariners, or as public servants for the Condominium governments) also faced difficulties due to the lack of legal identity or travel documents or proof of belonging to a particular nation. New Hebrideans did not hold passports; instead, they each had a certificate of identity. These were treated with suspicion abroad; in some places, they were not recognized as legitimate travel documents.

Upon independence in 1980, the new government of Vanuatu issued the *Decentralization Act of 1980*,⁶ which established local government regions and local government councils. The Act outlined their powers and how they were to be administered;⁹ this included responsibilities for registering births, deaths, and marriages. In 1981, an amendment Act of the 1970 Joint Registration of Civil Status of New Hebrideans Regulation and the Joint Control of Marriage Regulation No. 12 of 1966 were enacted. These provided for applying the compulsory registration of births, deaths, and marriages of all persons.

There have been many developments in the organizing of civil registration services over the years. Today, civil registration is part of the Ministry of Internal Affairs, which also oversees the Labour department, immigration services, the Electoral Office, the police force, the Police Service Commission, the Corporate Service Unit, the Land Transport Authority, and the Local Authority.

3 Each of the administering countries made laws for its own nationals and optants, and together they made laws for Indigenous New Hebrideans and all other residents.

4 Citizenship defines who can lawfully reside in place, travel, vote, own property, and have access to national institutions such as courts, schools, and hospitals.

5 Egan, A.H. 1945.

6 Pacific Islands Legal Information Institute. 1980. paclii.org/vu/legis/num_act/da1980174

In Vanuatu today, civil registration of vital events plays a crucial role in providing proof of one's personal and cultural identity (including in relation to land rights) and important family relationships. A legal identity, which is established at birth registration, creates the first legal relationship between all persons born in Vanuatu and the state. It also provides (through the documents issued) the means for individuals to exercise other crucial human and civil rights and privileges, such as the right to citizenship, health care, school enrolment, movement, vote, and participation in public affairs.

AN OVERVIEW OF VANUATU'S CIVIL REGISTRATION AND VITAL STATISTICS SYSTEM

Legislative organization and management framework

Civil registration functions are regulated by the *Civil Status (Registration) Act* [Cap61]. It provides for the registration of births, acknowledgements, deaths, fetal deaths, marriages, dissolutions, and nullifications of marriage for all persons. The Act also provides for the creation of the position of Registrar General (who holds the sole authority of maintaining the official civil status register) and of district registrars and sub registrars to oversee registration activities at subnational levels.

The Act further spells out the procedures and requirements for registering and maintaining civil status records, including the forms to be used to register every vital event and the format of recording to be followed.

The *Civil Status Act* is under review to update some of its dated provisions, such as its reference of historical geographical boundaries (districts in place of provinces) and the requirement that registration be handwritten. The revised Act also recommends that the Civil Status department be renamed the Civil Registration and Vital Statistics department. Though the review of the Act is still



Photo: Tom Perry / World Bank

underway, operational changes have already been made to civil registration to align with the recommended processes. For example, though the processes outlined by the *Civil Status Act* are largely manual (paper based), since 2013, Vanuatu has been using an electronic SQL database known as RegisterViz (which was developed locally) to maintain civil status records.

The civil registration database is available over the e-government network in each provincial registration office and at major hospitals. The database operates across two main modes of access: one for capturing data and one for viewing data. Authorized civil registration officers with access to the system, and selected stakeholders such as the National Statistics Office, are given administrative rights to access all records through the view mode, but they cannot make changes. Other government departments also access the civil registration system through the view mode, especially to validate individuals' identities. The database has both on-site and off-site backup; this is a critical requirement for records security, particularly during national disasters, where records and civil registration infrastructure is at a critical risk of loss and damage. A project to

evaluate the performance of the database — including its appropriateness for the national and regional context, and alternative options in the market — is underway.

Level of completeness of registration of births

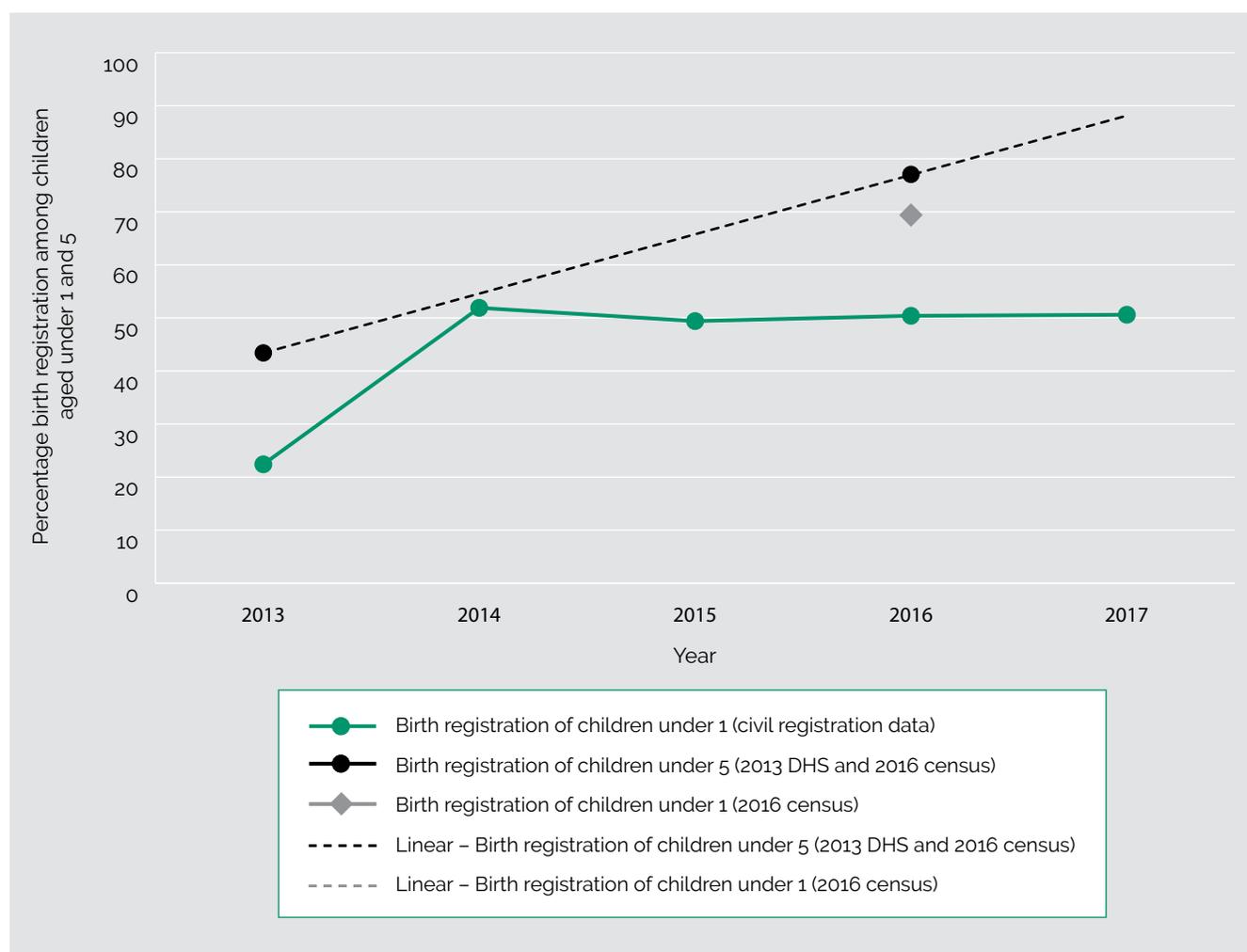
The law requires that all births be registered within 21 days. In Vanuatu, only a small fraction of births are captured within this timeframe each year; in recent years (2014–2017), according to data provided by the Civil Registration Office (based on events captured in the civil registration database), only about 1 in 2 births are registered within the first year of life. The 2016 census, which asked respondents whether they had a birth certificate, estimated that 69.4 percent and 77.1 percent of children aged under 1 year old and under 5 years old, respectively, had a birth certificate at the time of the survey (Figure 2).

The reason for the difference in the estimates provided by the census and those derived from the civil registration dataset has not been verified. However, it is recognized that responses to this question may vary based on how the question was asked and how respondents interpreted it. For example, respondents may not always make a clear distinction between a birth certificate and a birth notification form, and they could assume these are the same thing. Other contributing factors include the subjective nature of asking the questions without having to verify or view the document itself. Another challenge is the cumulative nature of records. The validation of records and the verification of the registration has been an issue; it is being addressed in a progressive manner, with efforts to remove duplicates and identify deceased members who may still be listed as alive in the system.

A dramatic change in birth registration completeness from 2013 to 2014 was the result of several initiatives:

- To improve accessibility to civil registration services in 2014, with the support of UNICEF, the Civil Status Department set up a birth registration service desk in the maternity ward of the main hospital in Port Vila and at provincial hospitals. This made it possible for new mothers who deliver their babies in health facilities to complete the registration process and have birth certificates issued on-site and free of charge.
- The Department created a working arrangement with the Ministry of Education so that approved head teachers and principals can sign completed birth registration forms and correspond with the Civil Status Department to complete the registration process, including issuing certificates.
- Vanuatu has done a number of birth registration catch-up campaigns recently. In addition to supporting the registration of vital events, the campaigns advocate for the importance of civil registration.
- The government made policy changes over the last five years that require members of the public to present a birth certificate to access government services, such as enrolling in elementary school and participating in national sports activities, such as the Pacific Mini Games, hosted by the Government of Vanuatu in 2017.⁷
- Most recently, a joint effort with the Electoral Office through the Vanuatu Electoral Environment Project led to a mass campaign for civil and voter registration to prepare for the 2020 national general elections. The focus was on registering citizens ages 12 and up and issuing their national ID cards.

7 Wikipedia. 2017. [wikipedia.org/wiki/2017_Pacific_Mini_Games](https://en.wikipedia.org/wiki/2017_Pacific_Mini_Games)

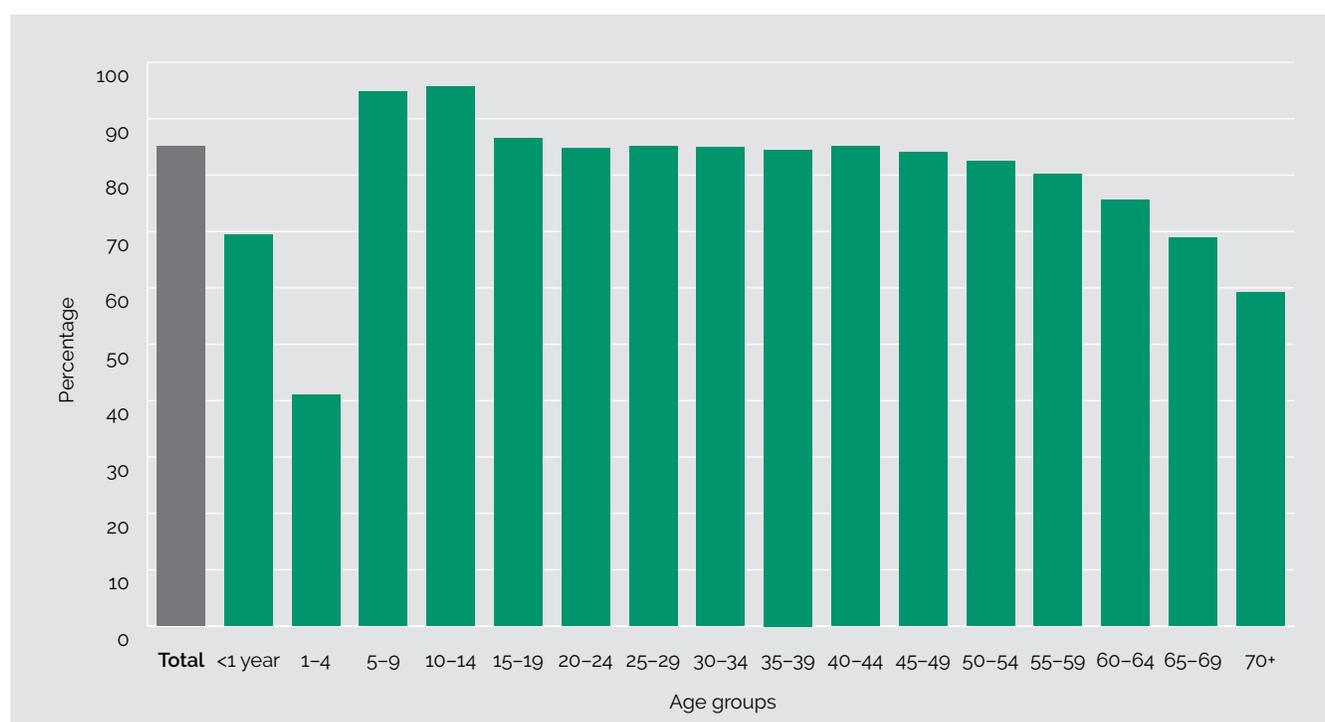
Figure 2: Trends in birth registration among children aged under 1 year and under 5 years.⁸

*For 2016, possession of a birth certificate (collected by the 2016 Vanuatu mini census) is used as a proxy indicator for birth registration.

Figure 3 shows the distribution of the population that has a birth certificate by age group based on the 2016 census.

- About 85 percent of the population is estimated to have had a birth certificate at the time of the survey.
- Children aged 5 to 9 years and 10 to 14 years were the highest proportion of those with birth certificates among all age groups.
- Notable differences in registration status are found among children in the age groups 1 to 4 and 5 to 9. In Vanuatu, birth certificates are required to enroll in elementary school (which usually starts at age 5). The fact that approved head teachers and principals can sign completed birth registration forms and work with the Civil Status Department to complete birth registration for children who enroll in school is clearly an important factor.

⁸ Given the differences in the estimates from different sources and the potential limitations of each of the data sources in providing an accurate picture of the level of birth registration in Vanuatu, a detailed study to ascertain the estimated level of completeness is recommended.

Figure 3: Proportion of the population that has a birth certificate by age group.

Source: [Vanuatu 2016 Post Pam Mini Census Report: Volume 1](#). 2016.

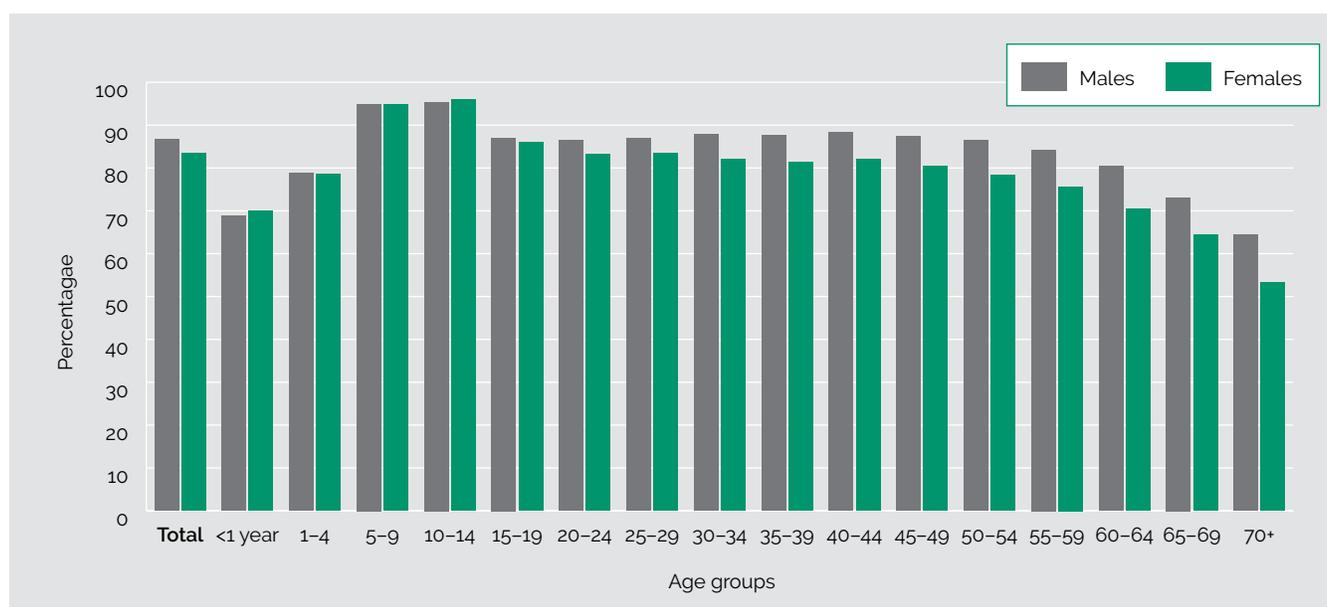
Differentials in the possession of a birth certificate by age and sex, as estimated in the 2016 census, indicate that a higher proportion of males (86.6 percent) have a birth certificate compared to females (83.3 percent) (Figure 4). These differences are minimal among children but are more pronounced in the 20+ age groups. Differentials in older cohorts could indicate historic traditions of birth registration in favour of males. It may also be linked to the fact that more males were in the labour force or travelled internationally and needed a birth certificate for these activities.

Differentials in the possession of a birth certificate by geographical region (province) are shown in Figure 5. Shefa province (home to the capital city, Port Vila, located on mainland Efate) has the highest proportion of the population having a birth certificate (93.3 percent), followed by Sanma

province (82.7 percent). Torba province, in the North, has the lowest proportion of the population with a birth certificate (67.3 percent). A closer look at these differentials at the sub-province (area council) level shows other key differences in performance by region; it could be useful to understand these when designing a targeted response. For example, in South Epi, in Shefa province, only 39.9 percent of the population has a birth certificate, despite being in the best-performing province; in West Santo, in Sanma, 43.2 percent of people have a birth certificate.

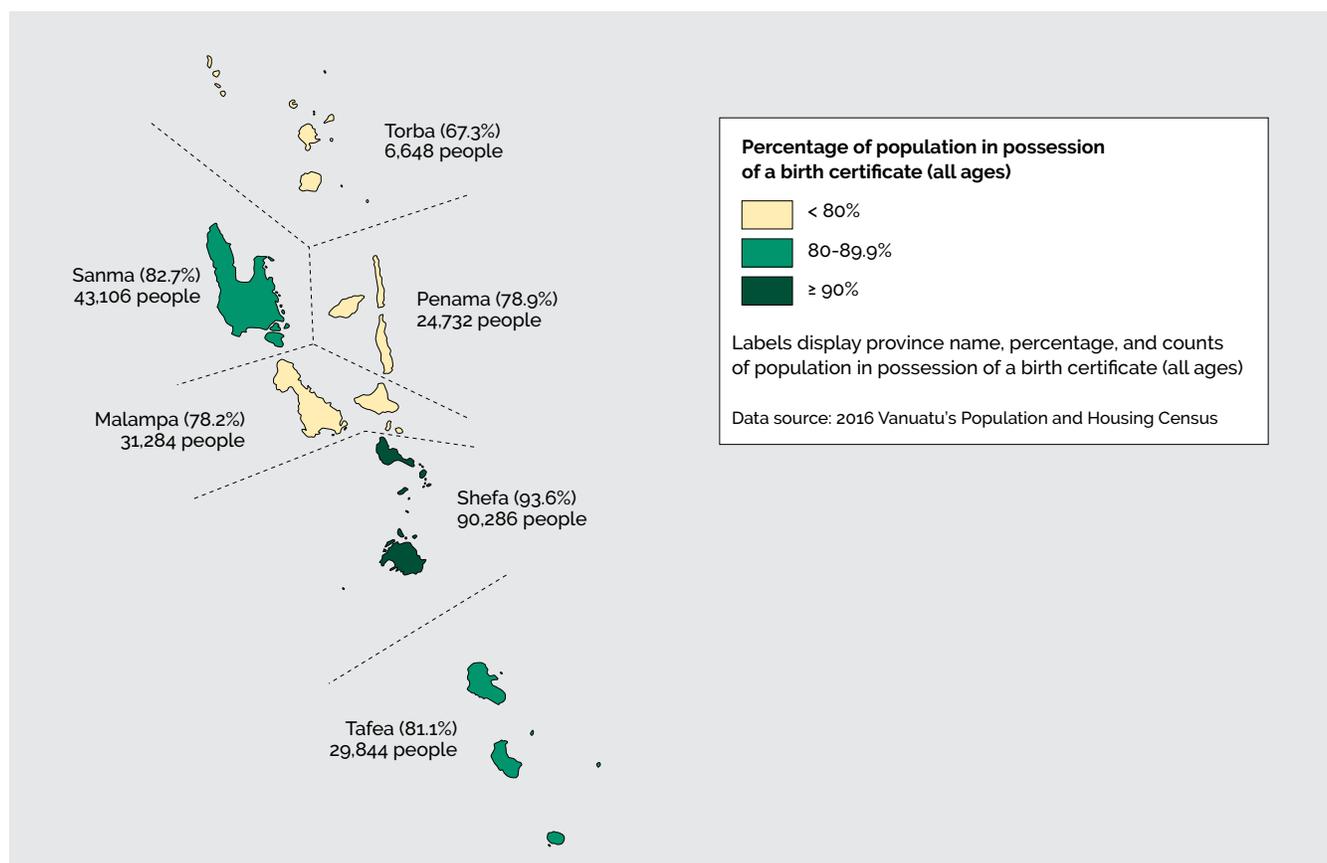
It remains to be seen whether these numbers will change after the 2020 National Population and Housing Census, which included questions about birth registration. However, it is highly expected that coverage will be better, especially after the mass registration campaign and the recent increase in registration points.

Figure 4: Differentials in birth registration by age and sex across different groups.



Source: [Vanuatu 2016 Post Pam Mini Census Report: Volume 1](#). 2016.

Figure 5: Differentials in birth registration by province.



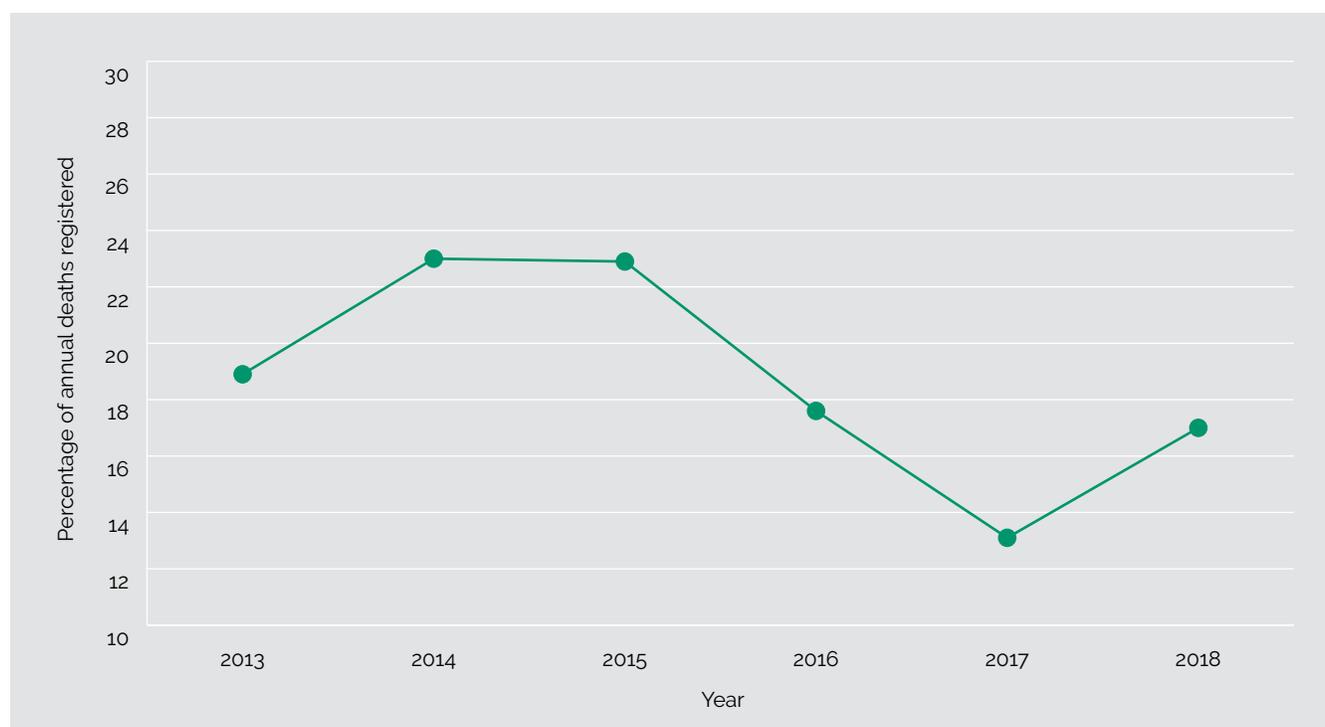
Source: [Vanuatu 2016 Post Pam Mini Census Report: Volume 1](#). 2016.

Level of completeness of death registration

The law requires that all deaths in Vanuatu be registered within seven days, but this is not happening in most parts of the country. Deaths are generally registered only if the deceased is to be buried in the municipal cemetery in Port Vila or Loganville, or if the family needs this documentation, such as for inheritance purposes (mostly in relation to land or for access to social benefits of the deceased, such as the Vanuatu National Provident Fund). In most cases, burial is done before the death is registered.

Figure 6 shows the distribution of registered deaths by year from 2013 to 2018, based on events captured in the civil registration database. For all years with figures of less than 25 percent, deaths are estimated to be captured in the civil registration database within a year of occurrence. A notable improvement in death registration completeness occurred between 2013 and 2014. However, these gains are not sustained: there is a steady drop in the proportion of events registered from 2015 to 2017, and no assessment has been done to identify the reasons behind it. A slight improvement is noted in 2018, though there is no data to confirm whether the improvements continued in the following years.

Figure 6: Trends in death registration in Vanuatu (2013–2018).



Source: Vanuatu Civil Status Department

In general, incentives to register deaths remain very low. Some key barriers include lack of awareness of the importance of registration, lack of immediate need for death certificates, and limited accessibility to civil registration services. As registration offices are mainly located in urban areas, people living in rural areas (70 percent of the population) have limited access to these services. Since most deaths are not registered, it is difficult to have accurate statistics on causes of death in Vanuatu; this includes statistics on disaster-related deaths. Cause-of-death information is available from hospital separation records, medical certification of hospital deaths, and community health facilities, but these sources need to be collated to be able to inform the leading causes of mortality. There are challenges in estimating deaths that are directly and indirectly attributable to disasters. Due to the uncertainty around current reporting completeness from CRVS systems in Vanuatu, it is not possible to provide accurate national estimates of cause-specific mortality rates in the population.⁹

WHY CRVS MATTERS DURING DISASTERS AND EMERGENCIES

The importance of legal identity documents and vital statistics during times of disaster

The primary function of civil registration is to issue members of the public with official documents that they can present as legal proof of identity and family relationships. These documents help people access key social and public services and support basic human rights. Experiences from past disasters in Vanuatu reveal that the need for legal identity records and documents is even more crucial during times of disaster. Individuals need these documents to prove who they are



Photo: Tom Perry / World Bank

and to register for secondary identity documents such as national ID cards, which are often needed during disasters for things such as accessing relief supplies.

In Vanuatu, government agencies, non-governmental organizations, and other actors increasingly rely on civil registration records and data to plan and keep track of services and to provide support to members of the public during emergencies and disasters. For example, in 2017, following increasing volcanic activity from the Manaro volcano on the island of Ambae, the government triggered a state of emergency, requiring the entire population (around 11,600 people, including some 5,220 children) to be immediately evacuated to the nearby islands of Santo, Pentecost, and Maewo. Once the volcanic activity stabilized, the National Disaster Management Office (NDMO) did a repatriation exercise, leading to the phased return of the residents of Ambae. In all cases, the evacuation, settlement,¹⁰ and repatriation efforts required reliable information about the identities of the

⁹ Carter et al. 2016. pophealthmetrics.biomedcentral.com/articles/10.1186/s12963-016-0074-4

¹⁰ During this emergency, UNICEF provided support to the Civil Registration Office to register births and issue identification cards at evacuation centres for people who did not have these.

persons concerned. To this end, a register of the identities of the victims was created; it needed to be cross-validated against the national civil register as well as with people's birth certificates and national ID cards. The register of evacuees was used to facilitate safe repatriation efforts, including ensuring that those repatriated were the actual evacuees. The registers were also used to facilitate mobilization, planning, and distribution of government relief supplies.¹¹

There have been similar uses of the civil register and civil registration documents during the COVID-19 pandemic, in which a state of emergency was declared in March 2020. During the state of emergency, Vanuatu citizens returning from overseas trips must register with the government (the NMDO and Ministry of Health) through providing a proof of identity (mainly a national ID card that is issued based on a birth registration record). The national ID card is also used as the primary identity document to register for a special health ID card (established by the government following the emergence of the pandemic) for all persons working within a designated quarantine site,¹² to facilitate contact tracing. The civil registration database is used to validate the identity of the persons registering for this card: when the special ID is swiped, the civil registration database validates the identity on the card. The Vanuatu National Provident Fund uses civil registration records to verify identities to allow affected persons to withdraw funds for support during times of disaster.¹³

More broadly, many government agencies now recognize the importance of registration. They are signing memoranda of understanding with the Civil Registration Office so that civil registration records can be used to verify identity. For example, the Electoral Office, which has done

electoral listing exercises, now relies on the civil register to identify persons who are 18 or older and eligible to vote, and those approaching voting age, to issue the relevant identity credentials. Non-governmental organizations such as the Red Cross are also increasingly moving away from doing head counts to relying on civil registration data to understand the size and characteristics of the population affected in times of disaster.

Following Cyclone Pam in 2015, different agencies produced numerous reports on the scale of the disaster, mainly the numbers of those affected and their location. Conflicting reports complicate disaster management efforts. Civil registration records have been found to be a reliable source of data in Vanuatu, especially in enabling governments (in particular, the National Disaster Management Office) to get an accurate assessment of the number of victims and their geographical location for appropriate response.

The importance and uses of civil registration-based vital statistics in the context of disasters and emergencies

Civil registration records are considered crucial in supporting disaster management efforts. Vanuatu has also found it useful to triangulate them with other data sources to get the full picture of the magnitude and impact of the disaster and to design appropriate response and support mechanisms. In 2016, the Vanuatu National Statistics Office conducted a mini census in response to the disasters affecting the country, including Cyclone Pam and the El Niño drought that followed.

11 Interview with Joemela Simeon, UNICEF Vanuatu.

12 covid19.gov.vu/index.php/know-do/quarantine-and-isolation

13 Interview with Joemela Simeon, UNICEF Vanuatu.

In addition to providing the basic count of population and households, the census aimed to get information about households that were affected by the disasters. For example, the census collected information about households whose home was completely damaged and household members seeking shelter elsewhere by region; households that received disaster support by region; and the status of individuals in terms of having identity credentials (e.g., birth certificate, electoral card, or national ID card) and a bank and Provident Fund account, all of which are important in getting support after a disaster.

These data, along with civil registration data, have been useful in facilitating follow-up support to individuals and households affected by the disasters. Disaggregated data/statistics have been crucial in giving the government a better understanding of the impact of the disasters and in mitigating or eliminating potential inequalities arising from disaster impacts, such as among historically disadvantaged groups. In Vanuatu, these initiatives have shed a light on the status of having identity credentials and have made it possible to create mechanisms for issuing such credentials for populations that do not have them.

THE IMPACT OF DISASTERS AND EMERGENCIES ON CIVIL REGISTRATION OFFICES AND SERVICES AND POTENTIAL MITIGATION MEASURES

As the COVID-19 pandemic has shown, natural and other disasters and emergencies pose great risks to the performance of civil registration systems: these disasters could have both short-term and long-term impacts on civil registration operations and on the availability and quality of vital statistics. In Vanuatu, past disasters have negatively impacted the performance of the civil registration system in various ways:



Photo: Silke von Brockhausen / UNDP

- Disasters have personally affected the staff who work in civil registration offices whose homes are destroyed. These staff members are unable to report to work, which affects the delivery of civil registration services. The government has addressed this situation by deploying staff from unaffected regions to temporarily replace those working in affected regions. This makes it possible for the Civil Registration Office to resume operations while giving local staff time to recover.
- A common phenomenon during and after disasters in Vanuatu is the loss and destruction of people's civil registration documents. In some cases, civil registration offices and infrastructure have been destroyed. For example, in 2015, following Cyclone Pam, the civil registration office in Tafea (in the Southern province) was damaged. Computers used for registration were also damaged. Power cuts affected operations. Also, paper documents and some printed certificates were destroyed.¹⁴

¹⁴ Ibid.



Photo: Tom Perry / World Bank

To address these impacts, the government, supported by UNICEF, ran a birth registration campaign aimed at replacing damaged documents and giving people who had not previously registered an opportunity to do so. The civil registration office was relocated to another building and has since operated from there. Civil registration offices were also relocated for Ambae after the 2017 volcanic eruption. When the entire population of Ambae was relocated, government services, including the civil registration office (and equipment), were moved to Santo, to the central office in Port Vila. Unfortunately, since then, no civil registration service has been offered since the population was repatriated back. The government is reopening the civil registration office in Ambae in 2021.¹⁵

Vanuatu has also begun a number of birth registration catch-up campaigns, including following Cyclone Pam,¹⁶ where deliberate efforts have been made to reissue lost or damaged birth certificates and to facilitate the registration of births for adults. During these campaigns, the birth registration database (which can operate offline) is downloaded onto laptops, which are transported to the remote islands and used for registration. The records are resynced with the global database upon return. During the campaigns, the civil registration office enlists support from volunteers such as teachers and youth, who are trained on how to collate information from individuals and to complete registration forms.

DISASTER MITIGATION STRATEGIES AND SOME RECOMMENDATIONS

Like Vanuatu, a few other countries in the Pacific, such as Nauru and the Federated States of Micronesia, have experienced disasters, including fires, that have damaged important records and data. Disaster risk planning can make civil registration systems much more resilient to disasters. According to a workshop of Pacific civil registrars held in October 2017,¹⁷ except for a few countries such as the Commonwealth of the Northern Mariana Islands (CNMI) and Australia, many countries have not added disaster planning to their civil registration plans, and they lack clear guidance on how to mitigate impacts or manage civil registration procedures when disaster hits. Some good practices can be observed in countries such as Australia, Vanuatu, and New Zealand, countries that have business continuity plans that have come in handy in supporting the government's response to the COVID-19 crisis.

¹⁵ Ibid.

¹⁶ UN News. 2015. news.un.org/en/story/2015/04/496452-vanuatu-unicef-launches-birth-registration-campaign-recovery-cyclone-pam

¹⁷ Pacific Civil Registrars Network (PCRN). 2017. getinthepicture.org/sites/default/files/resources/Final%20report%20PCRN%20conference%20on%20disasters%20and%20CRVS%20Suva%2022122017.pdf

One of the key disaster mitigation measures that Vanuatu has strongly benefited from over the years is the centralized structure of its civil registration database. This structure ensures that the database can be accessed from all locations of the country and that civil registration records are universally backed up (available online) and accessible (can be issued from different geographical points). This means that even if one region is affected by a disaster and its equipment is destroyed, all records of that region are secure and can be accessed from alternative devices.

Senior staff of the Civil Registration Office of Vanuatu who have managed civil registration operations in times of disaster have gathered important practical experience on how to respond when a disaster strikes and how to adequately plan to mitigate the impact of disasters. During the writing of this paper, it was recognized that it is important to document this knowledge, including for the benefit of other countries.

Here are some of the recommendations shared by UNICEF staff members who have supported Vanuatu during times of disaster:

1. Have a backup plan for CRVS system

operations. Set up alternative, well-equipped offices to ensure operational continuity of the CRVS system in case the disaster affects the central office. Distribute resources into developing multiple civil registration service points and avoid putting all your eggs in one basket.

2. Ensure that all civil registration records are well backed up (especially if these are stored electronically) and establish ways for securing the backup.

3. Have a disaster management plan. This plan should include guidance on how to manage staff members, who are also likely to be affected by disasters. In Vanuatu, during past disasters, the Civil Registration Office organized staff rotations, where staff living in unaffected areas move temporarily to replace those in the affected areas until the situation has stabilized and the affected staff can return to work. These staff rotation arrangements are done in close consultation with staff and are not organized until it is confirmed that the staff seeking to provide support are in a good position to do so.

4. Establish good relationships with development partners working in the CRVS area and other stakeholders, such as organizations that traditionally provide the Civil Registration Office with office supplies. Such relationships could come in handy in supporting the Civil Registration Office so it can resume operations faster and to mitigate the impact of disasters. For Vanuatu, the support provided by UNICEF after a disaster helped the Civil Registration Office to mitigate and manage the impact of disasters and to resume operations as quickly as possible.

All of the above recommendations have been included in the Vanuatu Civil Registration Business Continuity Plan (BCP), an initiative led by the Vanuatu government to ensure that government offices can identify essential services in the event of a disaster. The plan makes it possible to identify services, resources required, and mode of delivery, taking into account the type of disaster and the infrastructure available. For example, in the event of community transmission for COVID-19 cases, the work-from-home concept will be activated, which will enable access to the civil registration database via the e-government network and will allow electronic certificates to be issued.



Photo: Silke von Brockhausen / UNDP

CONCLUSION

Disasters are likely to remain an important development concern in the coming decades for Vanuatu, other countries in the Pacific, and globally. Vanuatu's experience shows that it is important for countries to create disaster management plans and mitigation strategies: these strategies must be well documented and shared with stakeholders. As shown in this paper, civil registration records and data are critical resources for supporting governments and individuals during times of disaster. As such, governments should seek to make the best use of civil registration documents and to ensure that if they are lost or destroyed, they are reissued as soon as possible after a disaster so that members of the public can prove their identity during such critical times.

On the other hand, CRVS systems are dismally affected during times of disasters, as shown by the ongoing COVID-19 pandemic as well as specific examples provided in this case study. The importance of disaster preparedness and planning within national CRVS action plans cannot be overemphasized; this includes ensuring that CRVS records are well backed up (preferably electronically and online). A robust electronic platform for registration has proven particularly helpful in supporting Vanuatu in resuming the provision of civil registration services during and after disasters.

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