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

by Lauren Harrison and Liliana Suchodolska



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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](https://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 16.9. 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](https://data.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

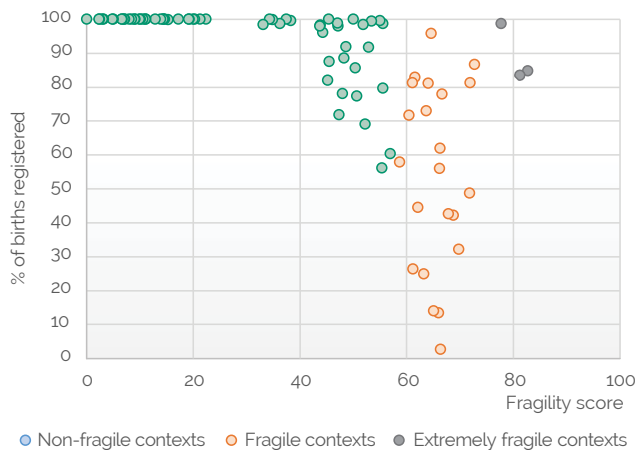
26 Birth registration is used throughout the brief as a proxy for CRVS coverage, since it provides the best, most recent data. However, coverage for other vital events, including death and marriage registration, is likely to be lower than for birth registration in both fragile and non-fragile contexts.

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

28 Ibid.

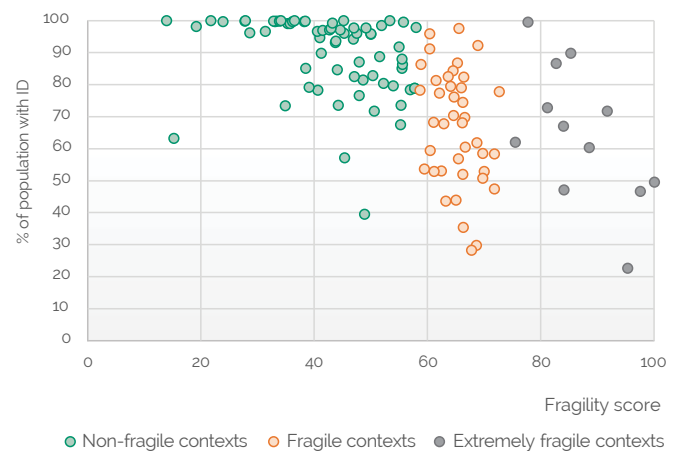
As shown in Figure 1, the OECD framework classifies all countries reporting the lowest levels of birth registration coverage²⁹ as fragile. However, we can also observe fragile contexts reporting coverage across a wide spectrum, with some near 100 percent and others near zero. Fragility in itself is not 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

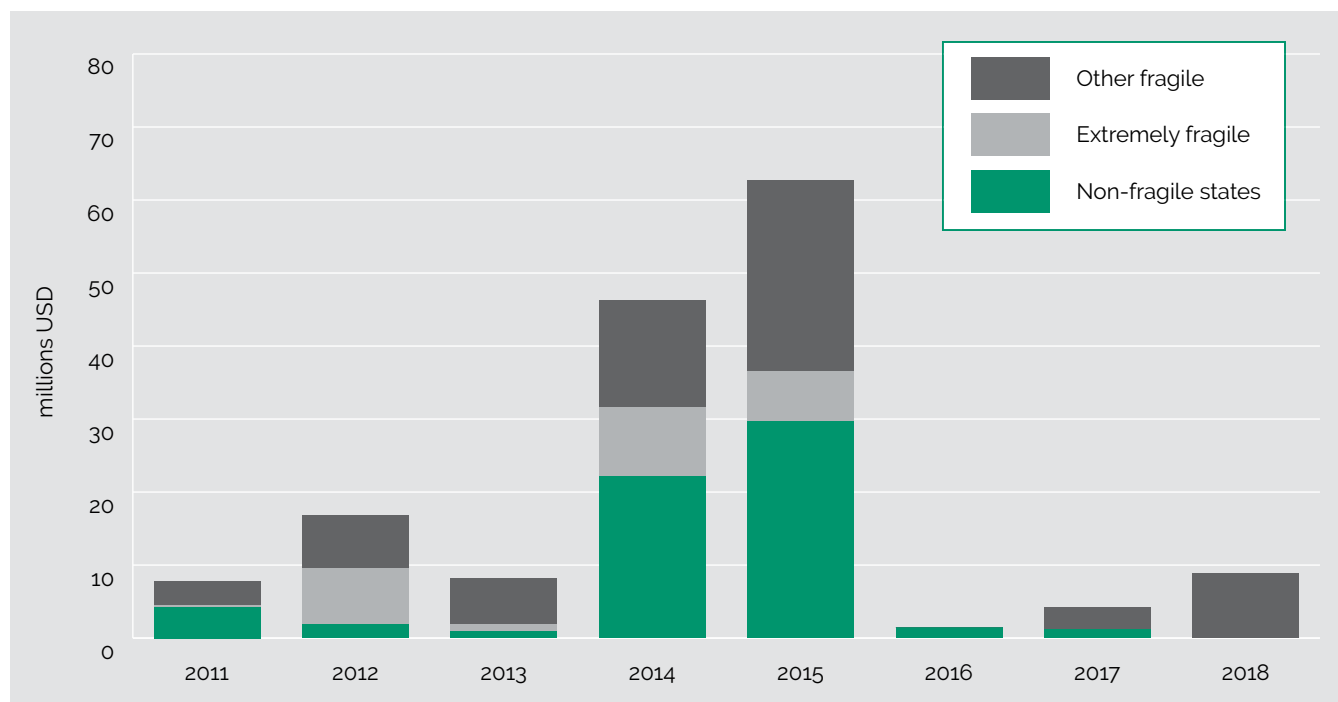
Current financing trends for CRVS

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.

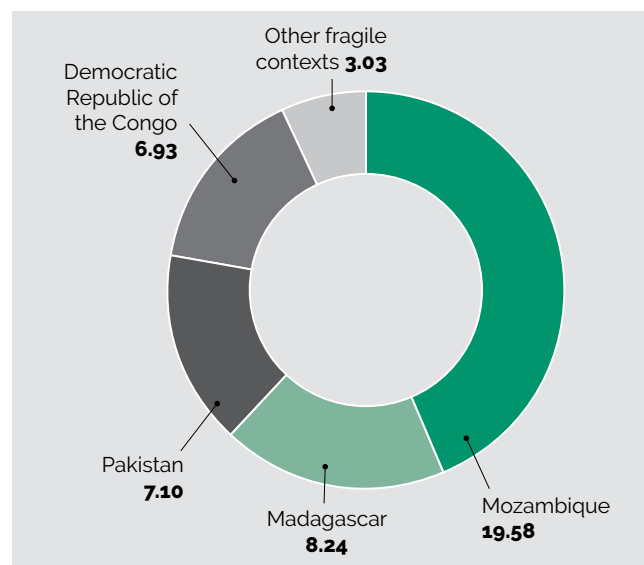
Figure 3: Support for statistics – Financing for CRVS, millions USD.

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.

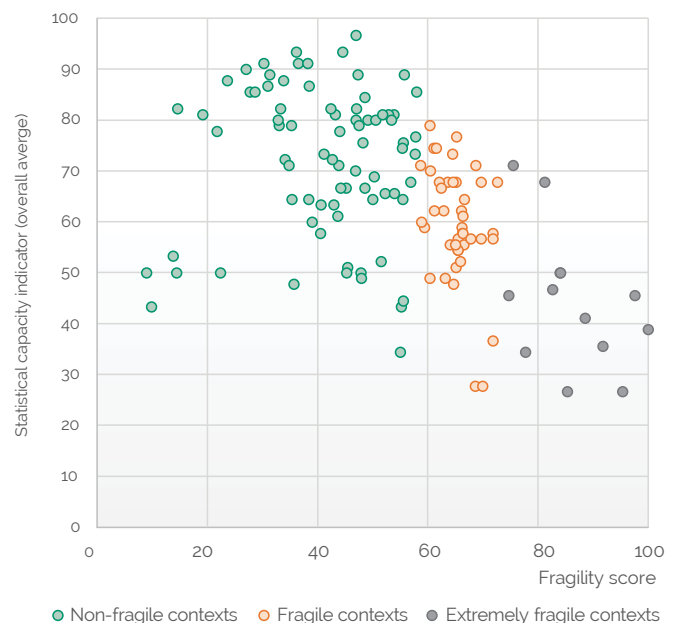
TARGETING INVESTMENTS IN CRVS SYSTEMS IN FRAGILE CONTEXTS

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.

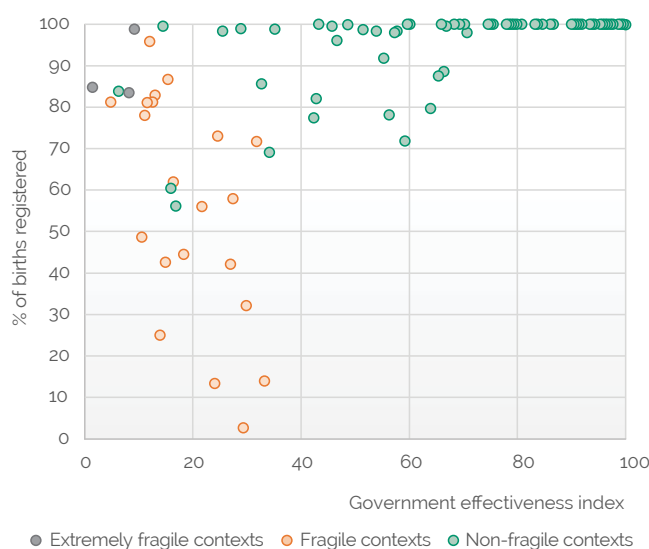
51 Harsch, M. 2020.

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_Compendum_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/10986/20752/912490WP0Digit00Box385330BooPUBLICo.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

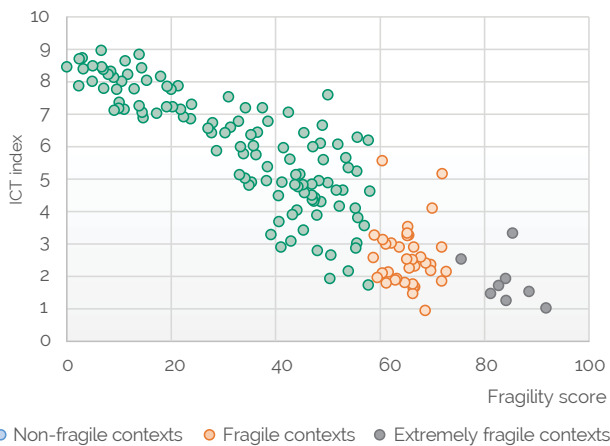
97 Ibid.

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

¹⁰² WHO. 2012.

¹⁰³ APAI-CRVS. 2016. 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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