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# STRENGTHENING CRVS SYSTEMS

Understanding country CRVS  
systems: the importance of  
mapping processes

CRVS Roadmaps for Action

August 2017

## Introduction

Civil registration involves the notification and recording of each of the vital events, including births and deaths, by government. Vital statistics are then generated by countries from aggregated birth and death registration data. This data is not only crucial for population health policy and planning purposes, but reliable and quality data from strong civil registration and vital statistics (CRVS) systems will be necessary for countries to measure, monitor and evaluate achievement of the Sustainable Development Goals (SDGs).

CRVS systems are extraordinarily complex, involving many in-country stakeholders and processes. CRVS systems have also evolved differently in each country over time, thus a 'one size fits all' model does not exist. Countries differ in their CRVS organisation, implementation, process, capacities, scale, and stakeholders. Adding to the complexity of CRVS systems, they form part of a country's larger political, economic, social, health, and information systems (see **Figure 1**).

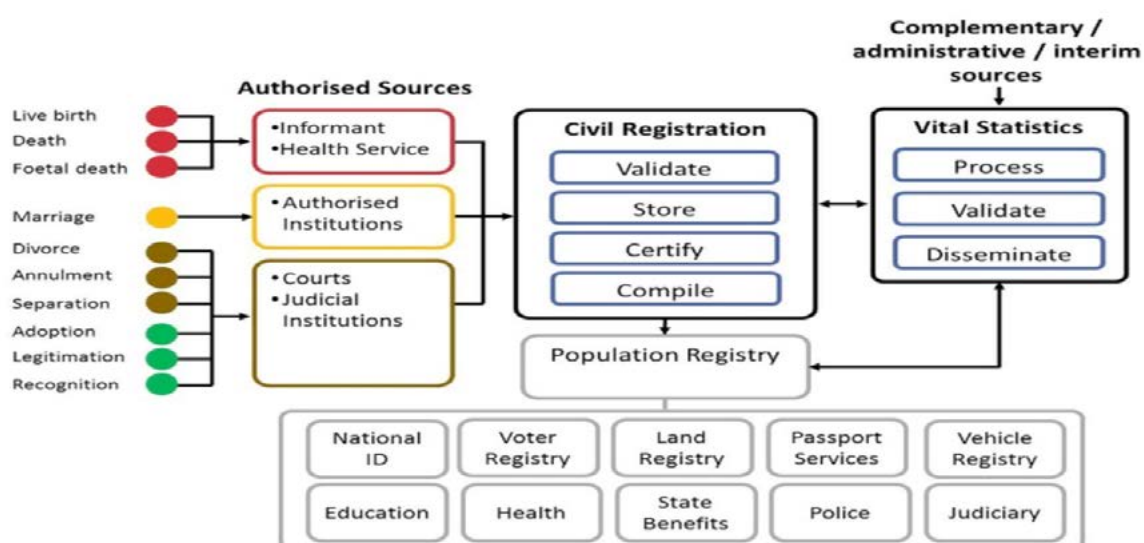
## Common roadblocks

Almost all CRVS systems in low- and-middle income countries (LMICs) are failing to achieve adequate levels of completeness and quality despite government attempts to apply standard methods proven to work-well in high income nations.<sup>1</sup> This suggests addressing system failure challenges might be the key to longer-term CRVS strengthening in LMICs, rather than standalone or ad hoc technical improvement efforts.

## Moving forward

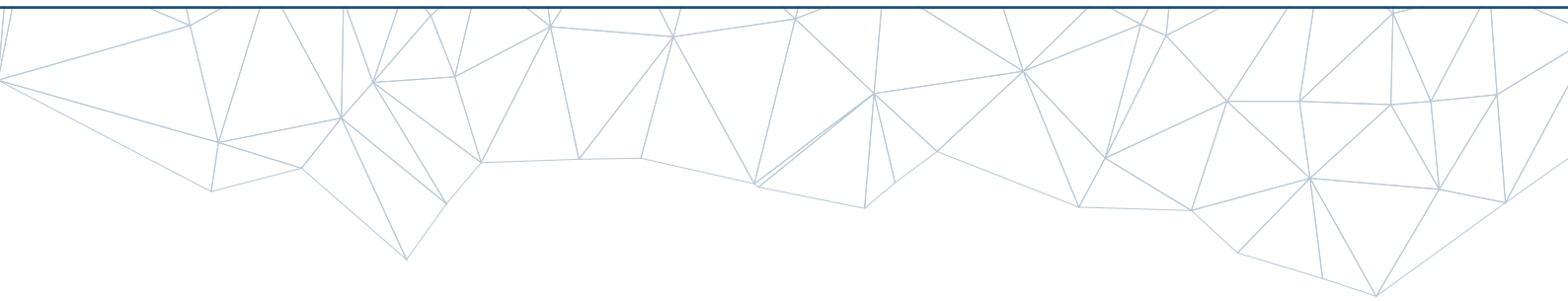
This *CRVS Roadmap for Action* highlights the complexity of CRVS systems and provides governments and their CRVS partners with one important way forward to address broader CRVS systems issues – through the tool of process mapping. The concept of detailed process mapping as applied to CRVS systems has been developed under the *Bloomberg Philanthropies Data for Health Initiative* (BD4H).<sup>2</sup> It has already been applied and tested in 16 LMICs by BD4H.<sup>2</sup>

**Figure 1. Complex elements of a civil registration and vital statistics system**



1 De Savigny et al. Integrating community-based verbal autopsy into civil registration and vital statistics (CRVS): system-level considerations. *Global Health Action*. 2017;10:127882.

2 The University of Melbourne. CRVS Development Series: Process mapping for civil registration and vital statistics (CRVS) systems strengthening. Bloomberg Philanthropies Data for Health Initiative. 2017.



Process mapping and modelling is one of the tools used in Enterprise Architecture to describe and analyse the business architecture of a system. It is a systematic and standardised approach that CRVS stakeholders can use to understand, analyse and optimise processes within complex systems, such as CRVS systems, in order to achieve intended system goals.

Process mapping is becoming an essential early step in the comprehensive assessment of any CRVS system. The purpose of routine use of process mapping is to better enable the system to provide citizens with legal documents such as birth and death certificates as well as the production of timely and reliable vital statistics.<sup>3</sup>

## Brief overview - Guidance for conducting process mapping of CRVS systems

A process map is a visual snapshot of the end-to-end activities, stakeholders and requirements of a CRVS system. When undertaking a process mapping exercise for CRVS systems strengthening, countries should aim to create maps for four CRVS systems processes:

1. Process map for declaration, notification, and registration of births in the community;
2. Process maps for declaration, notification, and registration of deaths in the community;
3. Process maps for declaration, notification, and registration of births in a health facility;
4. Process for declaration, notification, and registration of deaths in a health facility.

A process mapping exercise will begin with the development of a so called “As-Is” process map for each of the four processes listed above. As-Is CRVS process maps describe the current end-to-end flow of activities and stakeholders involved in each of the four CRVS systems processes, and their relationship among one another. As-Is process maps will assist countries and their technical partners assess whether current CRVS systems goals and objectives are aligned with current country operations. The As-Desired CRVS process maps, on the other hand, should visually map out what a country’s *desired* CRVS system might look like from end-to-end.

## How countries can progress the CRVS mapping process

There are usually four sequential phases to the process mapping and modelling exercise for CRVS strengthening.

**Phase 1:** A country team with the responsibility of overseeing the entire activity is assembled and all the existing information about the current CRVS systems processes (and goals) is compiled.

**Phase 2:** The current end-to-end flow of activities and stakeholders involved in a process are described using a process map. This results in the team developing an “As-Is” CRVS process map of the country’s CRVS system.

**Phase 3:** The team then brings the As-Is CRVS process map to either a regional workshop (with several countries participating) or national workshop. An analysis of the As-Is CRVS process map is conducted with relevant country stakeholders and partners to identify flaws in the design and areas that could be streamlined to improve the performance of the whole system. Design flaws, inefficiencies and bottlenecks of CRVS processes are identified and documented, and potential solutions and new interventions canvassed.

**Phase 4:** Together with the technical team, workshop attendees review the stakeholders involved, document the flow of activities and information, and ensure all key processes are addressed.

Following Phases 1 – 4, the next step would entail the country’s CRVS governance body, i.e. the National CRVS Committee, to formally sponsor and adopt the process improvement recommendations resulting from the process mapping exercise(s) as a basis for CRVS system improvement going forward.

<sup>3</sup> Cobos Muñoz D, de Savigny D. Process mapping and modeling: A tool for visualizing system processes from end-to-end. In: de Savigny D, Blanchet K, Adam T, editors. *Applied Systems Thinking for Health Systems Research*. Open University Press; 2017.

## Summary

- Investing in quality and reliable CRVS systems is important for strengthening country's population health and development efforts. Investment in CRVS strengthening will further support country achievement of the SDG agenda and enhance country reporting on other aid effectiveness activities to donors.
- Country engagement in process mapping of its CRVS systems is an excellent way countries can identify systems challenges, as well as visually identify systems solutions for cost-effective and sustainable CRVS systems strengthening.
- BD4H can support countries and their partners to undertake CRVS systems process mapping. For more information, contact: [CRVS-info@unimelb.edu.au](mailto:CRVS-info@unimelb.edu.au)

## Helpful Definitions

### Enterprise Architecture =

Enterprise Architecture is a methodology that provides a conceptual blueprint of the structure and operation of a system. Enterprise Architecture bridges the vision and objectives of a system (e.g. produce timely and accurate vital statistics for birth and deaths) with its operating model (e.g. CRVS systems processes, information flows, and technology)

### Process mapping =

Process mapping and modelling is one of the tools used in Enterprise Architecture to describe and analyse the processes and work flows of a system.

**For more information, contact:**

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