APRIL 2021 (VERSION 1.0)

CRVS Systems Improvement Framework

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Acknowledgements

Summary

The United Nations defines civil registration as "the continuous, permanent, compulsory and universal recording of the occurrence and characteristics of vital events [live births, deaths, fetal deaths, marriages, and divorces]… in accordance with the legal requirements in each country."[1] While almost every country around the world has established a CRVS system, too few achieve universal completeness and coverage.

In recent years, efforts to strengthen CRVS systems have led to important lessons and experiences by countries that have applied existing CRVS improvement tools, such as the APAI-CRVS and World Health Organization/University of Queensland Comprehensive Assessment Tools.[2] These learnings and other efforts to strengthen CRVS systems in Africa, Asia, and the Pacific using a holistic approach, have led to the development of the CRVS Systems Improvement Framework (hereafter referred to as "the framework"). The framework builds on experiences from CRVS system-wide strengthening approaches for developing strategic action plans across countries involved in global or regional CRVS system-strengthening efforts, including the Bloomberg Philanthropies Data for Health initiative.

The framework introduces a centric-improvement approach to increase CRVS system performance and service delivery to the population. Better systems and higher demand for civil registration services are key ingredients to achieve many of the Sustainable Development Goals (SDG) and other development commitments, such as the African Union Agenda 2063: The Africa We Want. These efforts strive for universal civil registration to generate vital statistics for planning and reporting.[3] Complete, current, and accurate civil registries provide a foundation for identity management systems and the input data for the production of vital statistics to foster good governance by ensuring equity, inclusiveness, and transparency in service delivery. Furthermore, regional initiatives such as the Asian and Pacific and the Africa decades for CRVS,[4] increasingly emphasize the importance of robust and well-functioning CRVS systems.

The framework is made up of three Stages:

· Stage 1: Assessment, analysis, and redesign;

· Stage 2: Development of the strategic action plan; and

· Stage 3: Implementation, monitoring, and evaluation.

The framework can be applied in a modular or comprehensive way, depending on the strategic value of improving a particular business process in the CRVS systems based on current system needs. This consideration will drive the scale and scope of process improvement. The framework's long-term value lies in its use as part of an iterative and sustainable cycle of continuous CRVS system improvement.

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1   United Nations. 2014. Principles and Recommendations for a Vital Statistics System — Revision 3, Series M, No. 19/ Rev. 3. New York: United Nations Statistics Division. Sales No. E.13.XVII.10. unstats.un.org/unsd/publication/SeriesM/ SeriesM_19rev2E.pdf
2   http://www.apai-crvs.org/assessment-tools
3   unstats.un.org/sdgs/indicators/Global%20Indicator%20Framework%20after%202019%20refinement_Eng.pdf
4   getinthepicture.org; apai-crvs.org

1. Introduction to the CRVS Systems Improvement Framework

CRVS systems are complex and span a wide array of actors, agencies, and ministries. The systems contain many subsystems and processes (civil registration, vital statistics, identity management, etc.), and are open to wider political, social, and economic systems that provide the working context. This complexity makes it difficult for any individual stakeholder or actor to understand the systems from end to end. It also makes such systems challenging to improve without applying systems-science and systems-thinking disciplines.

The chains of events, activities, and decisions across CRVS systems represent the system's business processes. A business process is defined as "a structured set of activities that takes an input and transforms it into a more valuable and effective service or product (serve a particular goal), as an output, for a particular client or clients."[5] Examples of business processes in CRVS systems are the timely registration and certification of birth, death, marriage, divorce, or vital statistics production. For example, timely birth registration and certification process will include a chain of events, several activities, various decisions, and multiple actors. Below is a simple description of the timely birth registration and certification process:

1. Family visits the civil registration office to submit a declaration of a birth;

2. At the registration office, family provides proof of the birth to the registration officer (for example, in the form of a birth notice from health authorities);

3. The civil registration officer reviews the submitted documentation to validate the birth;

4. Civil registration officer enters the birth registration record into the civil register, thereby registering the birth; and

5. Civil registration officer issues a birth certificate to the family.

The performance of any business or organization (such as the civil registration office) depends on how well its business processes are designed and executed.[6] The approach of measuring, analyzing, and redesigning business processes to accomplish significant performance improvement is known as business process improvement.

The efficient execution of a business process depends not only on its design but also on the availability of necessary resources and an enabling environment. The resources and enabling environment needed in the CRVS systems include:

· policies, laws, and regulations

· management and coordination

· human resources

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5   Hammer, M. and Champy, J. 1993. Reengineering the Corporation: A Manifesto for Business Revolution. Harper Business.
6   Boutros, T. and Purdie, T. 2014. Process Improvement Handbook: A Blueprint for Managing Change andIncreasing Organizational Performance. McGraw-Hill Education.

· physical infrastructure

· information technologies

Without these organizational capabilities in place, business processes will fail, clients and service providers will be disappointed, and the organization's performance will be low and inefficient.

Therefore, the CRVS improvement framework is intended to help stakeholders analyze and redesign existing business processes to improve the CRVS system's performance. A holistic focus on processes ensures that all stakeholders involved in implementation are engaged in the process improvement effort. Because of this focus on improving business processes, the approach is called "process-centric."

A glossary of terms used in the CRVS Systems Improvement Framework is provided at the end of this document before the annexes.

1.1 How to use the CRVS Systems Improvement Framework

The framework is inherently flexible and can provide value to any country desiring to address gaps in the CRVS system. For example:

· Countries that have not undertaken any CRVS assessment to date can apply the full or parts of the framework;

· Countries that have already done a CRVS comprehensive assessment will be able to use findings from that assessment to inform the process-centric analysis and assessment of CRVS business processes included in the framework; and

· Countries that wish to improve just one set of business processes (such as death registration) can apply all or part of the framework to those processes.

The framework is modular, thus compatible with any stage of strategic plans developed using past approaches for planning CRVS improvement and will be useful for ongoing CRVS system improvement efforts.

Preconditions for Success

A critical factor for successful implementation of the framework, is a functional national high-level CRVS committee that is willing to sponsor a business process improvement effort and act on its results. Other groups (see details below) should be set up to guide improvement efforts. If there is no national CRVS committee, efforts should be made to create such a committee to ensure that the framework is implemented effectively, and the overall CRVS system is well coordinated.

Before beginning any work, buy-in from all relevant stakeholders involved in CRVS system strengthening should be obtained — ideally through information and advocacy activities with the national CRVS committee. Continuous advocacy and communication throughout the efforts to improve the CRVS system are necessary to update and engage all stakeholders, including the public.

Improving the CRVS system has both short- and long-term resource implications. In addition, the improvement process itself comes with a cost. Before embarking on an improvement effort, all relevant government and other stakeholders must commit to providing financial and human resources to (i) undertake the assessment and (ii) implement the recommendations.

Scope of the CRVS Systems Improvement Framework

The CRVS Systems Improvement Framework is a tool for the holistic strengthening of CRVS systems. The framework can be applied to the overall CRVS system or any of its components and subcomponents, including those generating cause-of-death data. The framework is most suitable at the national level but can be scaled to meet local needs.

The guidance provided in this framework is limited to the processes for the timely registration and certification of four major vital events: live births, deaths (including the cause of death), marriages, and divorces. This is in line with the United Nations' recommendation for top-priority vital events to be recorded by countries in their efforts to establish or strengthen the vital events registration system.[7] The framework also includes limited guidance on the process of producing vital statistics.

National governments may wish to adapt the framework for other vital events, such as registering fetal deaths, the links between the civil registration system, the national population register, and the identity management system, and/or the integration of medicolegal death investigations into the CRVS system.

Intended audience

The framework is intended to be used by CRVS teams in government ministries, departments, agencies, development partners, and other stakeholders involved in CRVS system implementation. Such teams include the CRVS senior management and technical staff responsible for the CRVS system implementation, performance, and improvement.

While institutions responsible for CRVS may vary country-by-country, in most countries, such institutions include the Ministry of Home Affairs, Ministry of Interior, Ministry of Justice, Ministry of Health, Ministry of Planning and National Statistics Office, and, in some cases, the Ministry of Local Government and Administration. Staff from these institutions that oversee the entire day-to-day implementation of the CRVS process should be well oriented to the framework and involved in the improvement process.

1.2 Stages of the CRVS Systems Improvement Framework

The framework consists of three Stages:

· **Stage 1:** Assessment, analysis, and redesign
· **Stage 2:** Development of the strategic action plan
· **Stage 3:** Implementation, monitoring, and evaluation

The three Stages are interconnected. For example, performance indicators developed and measured in Stage 1 are used across the other two Stages of the framework for continuous monitoring and evaluation.

The objectives, main activities, and deliverables of each of the Stages are described in **Table 1**.

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7   https://unstats.un.org/unsd/demographic/standmeth/principles/m19rev3en.

	Stage 1 *(Assessment, analysis, and redesign)*	Stage 2 *(Development of the strategic action plan)*	Stage 3 *(Implementation, monitoring, and evaluation)*
Objective	1. Identify issues affecting the performance of business processes in the CRVS system and the root causes of these issues. 2. Identify redesigns to address the performance issues and root causes.	1. Develop practical strategies and an action plan based on prioritized redesign ideas to improve the CRVS system.	1. Implement the strategic action plan. 2. Continuously monitor and periodically assess the performance of the CRVS system and the implementation of the activities in the strategic action plan.
Main activities	1. Establish or reinforce the national CRVS strategic direction and governance structure. 2. Identify and document CRVS busines processes. 3. Identify performance issues of current CRVS business processes and identify root causes of the issues. 4. Redesign CRVS business processes and define improvements to organizational capabilities.	1. Formulate the strategic plan. 2. Identify activities required to implement the redesign ideas.	1. Mobilize resources needed to implement the action plan. 2. Develop and implement a change management and communication plan. 3. Implement the action plan. 4. Implement the monitoring and evaluation plan.
Outputs	Assessment, Analysis and Redesign Report with: 1. A vision for the CRVS system. 2. Process descriptions and process maps for redesigned CRVS business processes.	1. National CRVS strategic action plan.	1. Process improvements implemented. 2. CRVS system improvement monitored.

TABLE 1:
Summary of the stages of the CRVS Systems Improvement Framework.

1.3 Country approaches when using the CRVS Systems Improvement Framework

The approaches shown in Table 2 are recommended, depending on the country's status of implementing CRVS improvement:

Country Status	Guidance
Countries that have had no previous comprehensive or rapid assessment of the CRVS system.	Stages 1 and 2 of the framework will provide full scope of the analysis, assessment, and redesign to develop a strategic action plan for CRVS system improvement. As the plan is implemented, Stage 3 will provide further guidance.
Countries that wish to focus on one set of business processes for improvement (such as death registration), regardless of whether they have done a comprehensive or rapid assessment.	Applying Stage 1 to selected business processes will help countries identify measures to optimize those processes and improve their performance. When optimizing selected business processes of the overall system, countries should consider implications for other processes. As the selected processes gets implemented, Stage 3 will provide further guidance to monitor and evaluate performance.
Countries that have done an assessment and have a strategic plan.	Countries can apply any of the 3 Stages, depending on the current state of the country's improvement efforts (such as in an early stage of implementation, or at the midpoint, or close to the end of implementation of the current strategic action plan). These countries can apply the framework to several or all CRVS business processes, depending on needs. • A country that is at the midpoint of the implementation of its strategic action plan can apply all Stages of the framework and revise the ongoing strategic action plan as needed. • Countries looking to evaluate the progress of implementing their strategic plan can apply only Stage 3 of the framework. • Countries in the late or final stages of implementing the national CRVS strategic action plan can implement all Stages of the framework to plan for future improvement activities. Learnings from applying the previous strategic action plan will be valuable inputs to Stage 1 of the framework.

TABLE 2:
Approaches for using the framework.

2. Planning for CRVS systems improvement

2.1 Governance

Before embarking on the CRVS Systems Improvement Framework, countries should ensure a proper mechanism is in place to coordinate the CRVS system at the national level. This should be done through a High-Level Interagency CRVS Coordination Committee and a Technical Working Group or through a single coordination mechanism combining the responsibilities of those groups. These groups will provide oversight on specific activities set under the Framework.

High-Level Interagency CRVS Coordination Committee — This committee involves senior management officials from government and CRVS stakeholders. It provides leadership oversight of the CRVS system and should play a central role in CRVS system improvement activities. The committee leads and coordinates all national CRVS improvement efforts. It should ensure that necessary fundraising activities, advocacy, and budgetary allocations are secured to support the entire CRVS system improvement process using the framework. The High-Level Interagency CRVS Coordination Committee should be a permanent part of a CRVS system (i.e. not just for applying the framework).

Technical Working Group (TWG) — This group is made up of technical staff who can act as representatives from key stakeholder institutions — civil registration, vital statistics, and health information systems — as well as civil society organizations. The TWG provides technical oversight of the key activities of the CRVS system and efforts to improve it. The TWG collaborates with the anchor ministry for civil registration to mobilize resources from the government and partners. The TWG may have another name depending on the local system. It should report to the High-Level Interagency CRVS Coordination Committee. The TWG should be a permanent part of a CRVS system (i.e. not just for applying the framework).

A dedicated team should also be established to undertake specific tasks at the time when CRVS systems improvements activities are implemented.

Core Team — The core team should include experts and managers from the diverse CRVS stakeholder institutions assigned specific functions to implement the CRVS improvement effort. Depending on the arrangements within a country, this function may be assigned to an existing government structure if that structure is capable of carrying out the core team function. Various activities of the CRVS system improvement will be presented as the core team's responsibility. The core team members should represent stakeholders that are directly responsible for running various components of the CRVS system, as well as those whose functions, mandates, or operations require CRVS services and outputs. The team can also include development partners and national research and training institutions from different disciplines that are relevant to CRVS.

Each committee or team should have terms of reference that clearly outline tasks, membership, and meeting schedules. Examples of terms of reference for the High-Level Interagency CRVS Coordination Committee and the TWG are given in **Annex A**.

2.2 Preparing for implementation

The core team should prepare a roadmap for implementing the framework. The roadmap should cover all implementation activities, responsibility for implementation, outputs, and the cost of achieving them. This roadmap will ensure that there is a clear understanding of the sequence of activities and their timelines. A sample roadmap with timelines and responsibilities is given in **Annex B**.

The core team should present the costed roadmap to the TWG and the High-Level Steering Committee in a meeting. This meeting, which may include, among others, the development partners and interested donors, should be used as an opportunity to get feedback on the plan and to mobilize resources. It may be useful to include a representative from the Ministry of Finance to make sure that the government's contribution to this exercise is known and communicated in advance. When this task is completed, the core team should have an endorsed roadmap for implementing the framework and a resource matrix that outlines assigned funding sources (government and other sources).

2.3 Advocacy and communication for stakeholder engagement

The plan for CRVS system improvements should begin with advocacy to obtain buy-in from all relevant parts of government and from all stakeholders involved in CRVS strengthening. This should start by obtaining the approval of the national coordination mechanism(s) before undertaking the implementation of the framework and continue maintaining close contact with them throughout the implementation. Stakeholder analysis, continuous advocacy, and communication throughout the CRVS system improvement efforts are required to update and engage stakeholders and the public.

2.4 Resource mobilization

Implementing CRVS improvement plans requires resources. Such resources should be obtained from domestic or other sources. It is important that all relevant government and other stakeholders commit to providing the necessary resources (see also **Annex B**). Expenses for conducting the improvement framework include:

· desk research, field visits, and workshops of assessment, analysis, and redesign activities
· meetings or other activities to develop the strategic action plans
· consumables and reproduction of materials
· dissemination workshops
· costs of domestic or international experts

2.5 Stakeholder analysis and engagement

Different categories of CRVS stakeholders include:

- Government institutions and staff who have functional responsibility for implementing aspects of the CRVS system;
- Government institutions and staff who need CRVS services (including vital statistics) to provide input to their own operations;
- For-profit or non-profit organizations that require vital statistics or other authorized information from the CRVS system for their activities;
- Development partners, donors, and other institutions that provide technical and financial assistance for the CRVS system; and
- Families and other informants who experience or report on vital events and want them registered and to obtain certificates.

During CRVS system improvement efforts, any or all of these stakeholders need to be considered and engaged.

There are several benefits of stakeholder analysis and engagement. Information critical to decision-making in the system, operations of processes, and requirements for the system (such as stakeholder needs, capacity, or resources needed) can be brought to light. Engagement with all stakeholders during the system-strengthening efforts also helps to build trust in the CRVS system.

Various techniques exist for conducting a stakeholder analysis: stakeholder analysis matrices, Venn diagrams of relationships, spider diagrams, mind maps, and so on. An example of a stakeholder analysis matrix is given below in **Table 3**. Whichever technique is employed, certain standard steps should be included in the analysis:

- Identify key stakeholders such as, potential beneficiaries, system supporters and opponents, close-knit relationships, etc.;
- Assess stakeholder interests, expectations, likely benefits, resource contributions, etc., and how they might be impacted by the system and improvements to it;
- Assess stakeholder influence and importance in terms of: power and status (political, social, economic), control over strategic resources (such as government), networking (personal connections), and importance relative to the CRVS system; and
- Develop a participation strategy related to stakeholder interests, importance, and influence.

It is important to engage with all relevant government stakeholders and ensure full buy-in from them for CRVS system improvements.

Stakeholder analysis should assist in prioritizing stakeholder involvement. In other words, the analysis should decide which stakeholder to approach in what order and at what stage in the improvement of the system. Prioritizing stakeholders begins with a stakeholder map with the following or similar information for each stakeholder:

- Ministry
- Agency
- Role in the CRVS system

- Role in the improvement project
- Name of the contact person
- Designation of the contact person
- Type of stakeholder
- Type of communication (one-way information sharing, two-way consultation, collaborative, or shared decision-making)
- Expectations
- Interests and influence on project outcome

Prioritizing of stakeholders is done based on importance and influence. See **Table 3** for the stakeholder analysis matrix on how to classify stakeholders.

TABLE 3:
Stakeholder analysis matrix

<table>
<tr>
<td rowspan="2">**INFLUENCE**</td>
<td>**LOW IMPORTANCE;
HIGH INFLUENCE**

Not main targets but could oppose the system: keep them informed and acknowledge their views</td>
<td>**HIGH IMPORTANCE;
HIGH INFLUENCE**

Keep closely involved throughout the system development and implementation to ensure support</td>
</tr>
<tr>
<td>**LOW IMPORTANCE;
LOW INFLUENCE**

No special participation strategies required</td>
<td>**HIGH IMPORTANCE;
LOW INFLUENCE**

Special effort to ensure their needs are met, and their participation is meaningful</td>
</tr>
<tr>
<td></td>
<td colspan="2" align="center">**IMPORTANCE**</td>
</tr>
</table>

For the success of any CRVS system improvement effort, all relevant stakeholders should be mapped and engaged with appropriately.

The stakeholder matrix indicates the most important and influential stakeholders (upper right-hand corner) and the least important and least influential stakeholders (lower left-hand corner). The most important and most influential group should be consulted first, whereas the least important and least influential group need not be given special consideration.

2.6 Human resource requirements

The implementation of Stages 1 and 2 of the framework requires skills in CRVS systems assessment, business process improvement, strategic planning, and monitoring and evaluation. Even if countries have experience managing CRVS systems, additional support may be required for specific parts of the framework. It is recommended that a senior CRVS advisor be involved in facilitating the implementation process of the framework. A senior CRVS advisor and technical officer working together are expected to facilitate and oversee adaptation of the framework's guidelines and tools to national circumstances, support capacity building in the use of the tools, and help raise awareness of and advocate for the improvement of the CRVS system.

If the senior CRVS advisor is to be contracted from outside the country or government, they should be involved in discussions from the start. The senior advisor should work and mentor a CRVS technical officer throughout all stages of the improvement process. The technical officer should be a local CRVS expert, from within government if possible. The technical officer will work with the senior CRVS advisor fostering the exchange of knowledge and experience.

The responsibilities of the senior CRVS advisor, may be expanded to include reviewing outputs at key stages of the improvement process, including the strategic action plan.

In Stage 3 of the framework, input from the senior CRVS advisor and the technical officer will remain valuable and will contribute to the steps being taken by actors in the CRVS system. The specific human resource needs for implementing Stage 3 of the framework will depend on the strategic action plan that has been developed for the country.

3. Stage 1: Assessment, analysis, and redesign

Once all preparations are done, buy-in and resources obtained, and external technical assistance arranged as needed, Stage 1 begins. This Stage involves assessment and analysis in detail of relevant CRVS business processes, identifying key performance issues of CRVS business processes and their associated root causes, and the development of redesign measures to achieve improvements.

Stage 1 starts by orienting the core team and technical advisors to the parts of the CRVS system that will focus on the improvement effort. This should include orientation of:

- the senior CRVS advisors to the local CRVS system (if needed)
- the technical officer to the current performance of the CRVS system
- the core team to the framework (its purpose, the three stages, and their objectives)
- all stakeholders on international best practices in the relevant areas of the CRVS system

The core team first reviews the mission, vision, core values, and strategic plans of the CRVS system where these exist. This ensures that any redesign options are consistent with existing or intended CRVS strategies and priorities. The next step is to identify which business process or processes will be improved in this iteration of the framework. Detailed documentation of the selected business processes is part of this step.

The core team then determines a limited set of key performance indicators (KPIs) to benchmark the current performance of the CRVS business processes. For each KPI, the core team will collect baseline performance information of the selected CRVS processes.

Next, the core team analyzes the CRVS processes using the KPIs to identify performance issues and their associated root causes. A field visit is conducted to validate and further elaborate on the performance issues and root causes identified. As the final step of this Stage, the core team identifies and develops redesign ideas to address the identified root causes. A report of the analysis and redesigns is then compiled and presented to the TWG and the High-Level Interagency CRVS Coordination Committee for review, comment, and endorsement.

This Stage uses the CRVS systems analysis and redesign (CRVS-SAR) to collect information systematically and analyze the performance of CRVS business processes against a list of KPIs. The CRVS-SAR tool captures the KPIs and baseline performance of a CRVS business process, defines target performance for those indicators, and identifies performance issues associated with the root causes. The tool further captures possible redesigns to develop an improved system.

3.1 Orientation to the framework

CRVS advisor

The senior CRVS advisor should familiarize themselves with the latest version of key documents describing the CRVS system (such as the strategic action plan) before their engagement begins. Throughout Stage 1, the advisor should provide strategic and senior-level input to the process and work very closely with the technical officer and the core team.

Core team

Once the senior CRVS advisor is oriented, a meeting of the core team should be held. At this meeting, the team members should present an overall picture of the country's CRVS system, including current strategic action plans, if applicable. The team should also present any preparations that have been done for implementing the framework. Any remaining preparatory work should be delegated to the relevant stakeholders at this meeting. The local plan or roadmap for implementing the framework (**Annex B**) should be discussed and updated as needed.

The senior CRVS advisor and the technical officer should then review relevant international best practices and standards with the core team (for example, from the United Nations Principles and Recommendations or other handbooks). The orientation meeting should further introduce the objectives, concepts, methodology/stages, and related tools and templates to ensure the core team is familiar with the overall framework.

3.2 Aligning improvement efforts with the CRVS strategic vision and priorities

The senior CRVS advisor and core team should carefully review any existing vision or mission statements, along with the core values for the CRVS system. This is an essential element of any improvement effort, ensuring the alignment of improvement work with the mission and vision of the CRVS system.

Under certain circumstances, such as the absence of a recent comprehensive CRVS assessment or strategic plan, the core team may be charged with developing a proposal for the vision and mission statements and core values to be presented to the larger group of local stakeholders. See **Annex C** for guidance on such an envisioning process.

3.3 Documenting core CRVS business processes for improvement

CRVS process documentation describes in detail the steps needed to complete a core business process from start to finish. Core CRVS business processes are primary activities and are different from support business processes (such as the processes for the recruiting staff or procuring office supplies).[8] In CRVS systems, core business processes include the timely civil registration and certification of vital events and the production of vital statistics. **Annex D** lists the most common core business processes in the CRVS system.

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8   Dumas, M. et al. 2013. Fundamentals of Business Process Management. Springer.

In case the core CRVS processes selected for improvement have not already been specified by the TWG or High-Level Interagency CRVS Coordination Committee, the core team should identify and propose them to the TWG or High-Level Interagency CRVS Coordination Group for sponsorship. The selection of the core CRVS business processes for improvement should depend on local settings, stakeholder needs, and any stated national CRVS strategy priorities.

The process documentation (including the template to describe the process and the process map) should be done in consultation with all relevant CRVS stakeholders. This should include owners of the business processes being reviewed and representatives from relevant line ministries.

The rationale by which any business process has been selected for improvement should be documented and communicated to ensure that all stakeholders understand what is or is not within the scope of the improvement effort. The team should consult with key stakeholders about which business processes to improve, ensuring that all stakeholders and decision-makers agree on the effort. If multiple core processes are to be addressed, the tools presented in Stage 1 of the framework should be applied to each of these processes.

It is crucial for all stakeholders to have a detailed, accurate, and common understanding of the CRVS business processes selected for the improvement effort. It is recommended that selected processes be documented in written and graphical formats using the business process description template (see **Table 4**) and business process maps (see **Figure 1**).

For each selected CRVS business process, the process description template should be completed. **Table 4** provides a generic business process description template that can be used to describe CRVS processes in a narrative form. Filling out this template simplifies the later task of mapping the corresponding business processes and helps ensure the eventual production of complete and concise process maps. **Annex E** outlines an example of a completely filled process description templet for timely registration and certification of a birth occurring at home.

The individual responsible for completion of the process description templet should adopt a collaborative approach when guiding the team undertaking this task. There should be general agreement on the content of the process description template before proceeding to process mapping. The "Journey Map" tool (**Annex F**) can be used to gather the content needed to populate the process description templet, develop business process maps, and track issues about steps in the process as they arise in the discussions of the teams describing the CRVS processes.

Name of process	Provide the name of the business process.		
Process actors	List all actors involved in the process. Actors are all individual or organizational units that perform a specific activity in or interact with the business process.		
Process purpose	Provide a description of the purpose of the business process. This may include why and how the process will benefit stakeholders.		
Trigger(s)	List what events must occur to start the business process.		
Process flow	Broadly describe each step of the process from beginning to end. Walk in the shoes of the clients (such as a family registering a birth) to document the process flow from their perspectives.		
Process output	Describe the output of the process.		
Date created	Date the process description was created	**Last revision date**	Date the process description was last revised

TABLE 4:
Structure of the business process description template.

After completing the process description, the core team should develop detailed as-is business process maps. Business process mapping can be developed manually on paper or using a process-modelling software tool.[9] If a country chooses to use process-modelling software, it is recommended that a facilitator with the requisite knowledge and experience in using this software be engaged to train and assist the team in this task.[11] Ideally, a member of the core team or the technical officer will acquire experience in using such software to guide the mapping process. Although using detailed, manually drawn maps is simple and can be used when skills for process modeling are not available, adding and organizing details on such paper maps can be challenging.

It is recommended that the mapping be an interactive activity, with the expert entering the steps of the business process into the software as participants follow closely and intervene as needed. Maps should be developed collaboratively with all stakeholders giving input to ensure that the map represents the full details of the current as-is business process. Business process maps need to include all variations of the particular process which may be present in a country — for example, if there is an online registration system in some locations.

Process-modelling software commonly allows for documents (such as forms used in the registration process or a copy of a standard operating procedure) to be attached to particular steps in the process. It may also be useful to list databases involved, technological systems used, or other aspects of the information-technology infrastructure employed during the steps of the business process. This makes the maps an even more valuable resource for the further work in Stage 1. The maps will likely need to be developed over a series of small meetings among members of the core team (and possibly other stakeholders) until all members of the team agree that the maps accurately represent all steps in the current as-is business processes.

9   For example, Bizagi (bizagi.com/en).
10 It would be advantageous and desirable to identify a person with the skill of developing process maps using the business modelling tools. Ideally, this person would be a local technically skilled civil registration functionary who can be trained on the use of business modelling tools and can then assist the core team throughout Stage 1.

When documenting the CRVS process, issues and problems with the design of the process affecting the performance of the CRVS systems may emerge. If so, any findings should be noted for use later in the CRVS system improvement process.

Figure 1 below shows a sample process map developed for timely civil registration and certification of birth occurring at home. As an alternative to this end-to-end view, a 'Level 1' map can be created that provides a high-level view of the business process and shows the process across multiple organizations or departments. Smaller segments of the process map can be broken down into more detailed maps (Level 2 and Level 3 maps). For example, "Report birth", "Declare birth", "Register birth," and "Certify birth" are subprocesses of the process for the timely registration of a birth occurring at home. A version of the business process map shown in **Figure 1**, separated into Level 1 and Level 2 maps is shown in **Annex H**.

FIGURE 1:
As-is business process map for the timely civil registration and certification of a birth occurring at home.
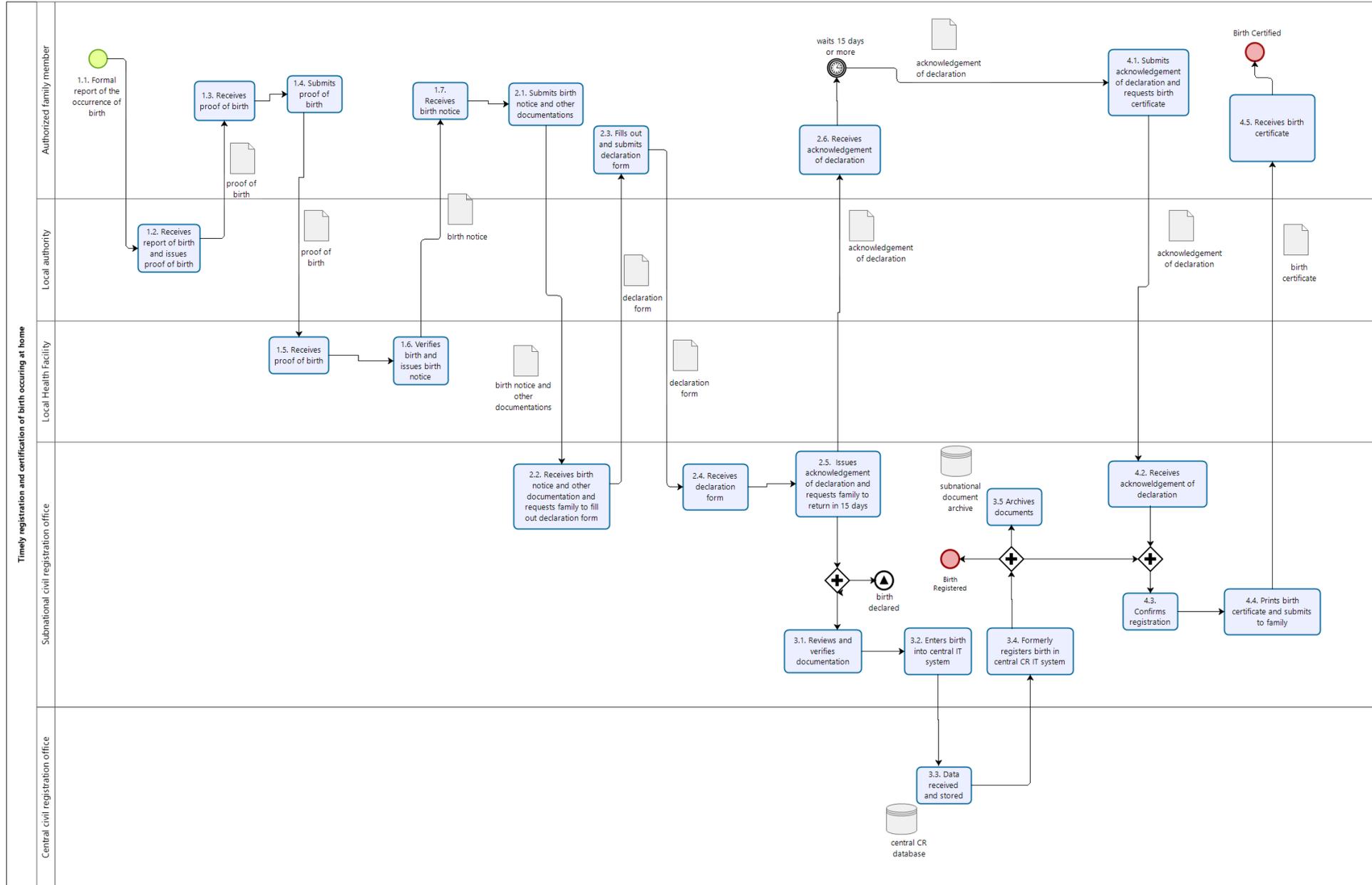
3.4. Developing key performance indicators

The core team should measure the current performance of the selected business processes before attempting to analyze and redesign them. This will help identify performance gaps and determine whether the processes are designed and executed successfully.

Key performance indicators (KPIs) measure processes and their outputs and outcomes in CRVS systems against a set of performance targets. The selection of appropriate KPIs and targets helps identify the performance gaps in a systematic and robust manner, leading to a set of recommendations. The selected KPIs should be sufficiently detailed to capture all likely issues and challenges in current practice.

The core team, technical officer, and senior CRVS advisor should work together to select or develop KPIs for the business process being examined. Specific KPIs to be used should be drawn from the literature or developed on a fit-for-purpose basis.

While the number and type of KPIs developed will vary by country, it is recommended that two types of output and process-level KPIs be considered:

· those that examine performance from the perspective of the clients registering vital events (such as families)
· those that examine performance from the perspective of the service providers (such as civil registration offices)

In addition to these KPIs, civil registration completeness is one of the most important indicators of the CRVS system's performance. Complete timely civil registration is defined as the percentage of events registered within the legally stipulated time out of the total expected number of events occurring within the relevant territory and time. Civil registration completeness should be calculated using a standard method for birth and death separately by geographic areas and sex. It may be difficult to locate a reliable and independent source for the expected number of births and deaths to perform the completeness calculations. As required, international estimates of the crude birth or death rates may be used.[11]

From a client perspective, the KPIs to assess the performance of CRVS business processes for registering and certifying vital events should relate to:

· public engagement
· certification of registered events
· costs of registration and certification
· quality of registration and certification services
· complexity of the CRVS processes
· time required to complete registration and certification;
· access to registration and certification services.

For example, for the timely registration of a birth occurring at home, one KPI from a client perspective might be "Average distance to registration services." More details on client perspective KPIs can be found in **Table 5**.

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11   See https://www.un.org/development/desa/capacity-development/tools/tool/handbook-on-civil-registration-and-vital-statistics-systems-management-operation-and-maintenance-revision-1/ for details.

Service-provider-perspective KPIs should assess performance of the CRVS business processes with regards to:

· provision of registration and certification services

· supervision, management, coordination, and monitoring and evaluation;

· production of quality and timely statistics

· production of timely and quality causes-of-death data

· financing

More details on possible service-provider-perspective KPIs can be found in **Table 6**.

Category	Process failures	Desired performance of the CRVS process for the client	Example topics for KPIs and milestones
Public engagement	Client is unaware of the need for civil registration and CRVS processes	· Clients are aware of the fact that civil registration is mandatory and understand how the process works (clear instructions, timelines, and deadlines), the purpose of the process, and the consequences of not registering or not getting the certificate · Clients are aware of the benefits and value of registration and certification services	· Public availability of a process description explaining the purpose of registering and the consequences not registering · Public awareness of incentives and penalties
Certification of registered events	Not all people who register a vital event possess or obtain certificates	· Certificates are issued immediately after registration · A sufficient stock of blank certificate forms or computer stationery is on hand · Certificate is provided free of charge	· Proportion of people registering events who receive a certificate
Costs of registration and certification	Cost of registration and/or certification is too high	· Registration and certification are or free	· Registration cost · Certification cost
Quality of registration and certification services	Registration records and/or certificates issued with errors and/or clients dissatisfied with the service	· Accurate registration records are produced · Correct certificates are issued · Clients are satisfied	· Error rate on registration records · Error rate on certificates · Client satisfaction

Complexity of the CRVS processes	Complex registration and certification processes	· Registration and certification processes are simple and sufficiently easy for the client	· Visits needed by the family for civil registration · Elaborateness of needs for supporting documents (such as multiple ID documents) or other requirements (baby's name, witnesses) · Restrictions on where registration can be done (such as place of usual residence) · Role of health sector or other government agencies in civil registration
Time required to complete registration and certification	Registration and certification processes take too much time	· Processing time is short at the registration point for registering and certifying events	· Waiting time at registration point to submit information · Overall time taken to register and certify a birth or death
Access to registration and certification services	Some clients are inherently excluded from civil registration services (for example, due to nationality) or there are other barriers to access services (such as distance or self-exclusion of illegal immigrants due to fears of deportation after accessing government services)	· Services are offered nearby (distance or travel time minimized) · No exclusion criteria exist that limit parts of the population (such as single mothers, foreigners or refugees) from accessing registration services · Services are provided at a time convenient to the client (considering, for example, opening hours)	· Distance or travel time to the registration point · Opening hours of registration points · Exclusion of any members of the population (such as refugees, ethnic minorities, language minorities, rural or remote populations, non-nationals, others)

TABLE 5:
Details of possible client perspective KPIs to assess the performance of business processes for the registration and certification of vital events.

Category	System failures	Desired performance of the CRVS system	Example topics for KPIs and milestones
Supervision, management, coordination, and monitoring and evaluation	Lack of field supervision results in inefficiency and variation in implementation of the process Absence of routine system for monitoring and evaluation makes it difficult to identify performance issues Lack of interdepartmental coordination at the national and subnational levels leads to parallel systems and inefficiencies, and has other negative effects on the performance of the system	· Regular field supervision, including a feedback loop, is in place · Performance of business processes is routinely evaluated and monitored · An annual review with all stakeholders is done to take stock of the progress of the system and propose course corrections · CRVS coordination mechanisms are in place at the national and subnational levels	· Institutional mechanism has been established to provide field supervision and feedback · Routine monitoring and evaluation and an annual review system has been established · High-Level Interagency CRVS Coordination Committee and technical working groups are established and functional
Production of quality and timely vital statistics	Statistical data from civil registration records are not transmitted, or are transmitted with a lengthy delay, to a vital statistics compiling office (usually the national statistics office), or the civil registration records are transmitted but not used by the national statistics office to produce vital statistics Statistical data collected during civil registration does not meet the desired standard in terms of the data elements collected or the quality of the collected data Vital statistics produced do not include all the UN recommended tables	· The civil registration office transmits all required statistical data to the national statistics office on time, and ensure quality · Vital statistics based on civil registration records are produced in a timely manner and disseminated annually · Vital statistics produced based on civil registration records meet the quality standard and include all the UN recommended tables and disaggregation.	· Vital statistics report is compiled based on civil registration records · Quality standards and timely production of annual vital statistics report are based on civil registration records · Vital statistics report complies with all UN-recommended tables

Production of timely and quality cause-of-death data	Cause-of-death data is not collected Cause-of-death data is collected for hospital deaths only from a few medical facilities The WHO-recommended medical certificate of cause of death form is not consistently used Cause-of-death information is collected and coded, but is not of good quality No cause-of-death information is collected for deaths occurring at home	• Cause-of-death data are collected for all deaths occurring in all medical institutions • The WHO-recommended medical certificate of cause of death form is used to collect data on cause of death in medical facilities • Mortality coding is done according to the standards of the International Classification of Diseases, with quality-control checks • Cause-of-death statistics are produced annually • A system exists to collect and compile data on the cause of death for deaths occurring at home	• Annual cause-of-death statistics are compiled for all deaths occurring in health facilities • Cause-of-death statistics are produced on time and according to quality standard • A system for collecting and compiling cause-of-death statistics for deaths occurring at home has been established, and statistics are being produced
Financing	Lack of funds leads to important activities not being implemented and the CRVS system being inadequately maintained	• The government provides an adequate budget for routine maintenance of the CRVS system and for continuing efforts to maintain and improve the system	• Government provides adequate funding to maintain the CRVS system and implement activities in the improvement plan

TABLE 6:
Details of possible service provider perspective KPIs to assess the performance of business processes in the CRVS system.

Annex G is provided as a resource to adapt for the local setting. Note that the KPIs provided in **Annex G** are not an exhaustive list of relevant KPIs for the improvement of CRVS business processes — other sources, such as local CRVS literature, can also be used do develop fit-for-purpose KPIs appropriate to the scope and scale of the improvement effort. The KPIs provided in **Annex G** are expected to apply to all countries, particularly low- and middle-income countries, but variations may exist depending on a country's situation. Additional country-specific KPIs can be used.

The KPIs provided in **Annex G** relate mainly to the timely registration and certification of births and deaths. The same KPIs also largely apply to the certification and registration of other vital events. KPIs for other relevant business processes in the CRVS system, such as late registration of birth or the sharing of new registration records from the civil registry with the identity management system, may also also be developed.

3.5 Compiling the CRVS system analysis and redesign (CRVS-SAR) tool

With the KPIs identified, the core team can build the CRVS-SAR tool to document the performance of the business processes identified for improvement. One CRVS-SAR tool should be completed for each of business process to be improved. The tool provides a systematic approach for collating information and analyzing performance of the CRVS business process against a list of predefined KPIs. The CRVS-SAR tool is used to record baseline performance, desired target performance, and performance issues, as applicable, for each KPI being applied to a business process. The tool will also be used to document the root causes of any performance issues and the redesigns to address those root causes.

TABLE 7:
Definition of columns and an example of the elements in the CRVS-SAR tool.

Column of CRVS-SAR tool	Definition (*example in italics*)
Key performance indicator (KPI)	A metric used to measure the performance of the CRVS business process. The KPI enables monitoring of performance in terms of progress towards specific defined targets. *Percentage of population who, in 2018, received birth certificates out of those who registered the birth.*
Baseline performance	The level of current performance that will be compared to target performance levels to test if the performance of the as-is process meets expectations, and ultimately to determine if the strengthening effort is leading to improvements (see Stage 3 of the framework). Baseline levels are determined mainly through the desk review, the as-is CRVS system workshop, and the field assessment. The baseline may not be numeric; for some indicators, ranges may be given (for example to account for variations among some areas in a country). *Percentage of population who, in 2018, received birth certificates out of those who registered a birth was 60%.*
Data collection methods/sources	The source of the data used as the baseline level for the KPI, such as a previously completed comprehensive or rapid assessment, vital statistics report, etc. *2018 monitoring and evaluation report of the Office of the Civil Registrar.*

Desired target performance	The desired level of performance of the CRVS business process for a particular KPI. The target will be determined using the vision and mission of the CRVS system, relevant legislation or policies, and/or senior decision-makers in the CRVS system (for example, through consultation with the High-Level Interagency CRVS Coordination Committee). *The desired percentage of the population who received birth certificates out of those who registered a birth is 100%.*
Performance issue	A substantial gap between the current or as-is performance of the CRVS business process and the desired target performance indicates a performance issue that needs to be addressed as part of the improvement effort. *A 40-percentage-point gap exists between the current performance and the target performance for registered births that get a certificate; this indicates a performance issue.*
Root cause	The fundamental contributory factor or factors leading to the poor performance of the CRVS business process for the relevant KPI, identified using a root case analysis. If the root cause is resolved, the performance issue is less likely to recur. *Regulations outlining complicated subprocesses for the issuing of certificates for registered events are the root cause leading to the gap between registration and certification completeness.*
Root cause category	This is the classification of root causes as they relate to a process or organizational capability (i.e. policies, laws, and regulations; management and coordination; human resources; physical infrastructure; and/or information technologies). Policy, laws, and regulations
Redesign of ideas	Recommendations and ideas to resolve the root causes of any performance. *Simplifying the subprocess for issuing certificates for registered events will allow existing human resources to ensure certification of all registered events.*
Affected stakeholders	Organizations and responsible individuals who are to drive improvement forward. *The process architect at the civil registry will work with stakeholders to change the process for the certification of registered events, and relevant standard operating procedures, policies, laws, and regulations will be updated accordingly.*

The CRVS-SAR tool will be completed gradually in Stage 1. **Table 8** shows the tool with example KPIs.

As a first step, the core team populates the CRVS-SAR tool with the agreed-upon KPIs. Following that, available baseline information and the desired target for each indicator will be filled into the tool (see next section).

3.6 Collecting CRVS system performance information

Before performing any detailed analysis of each CRVS process, the core team should gather as much performance information as possible and all applicable KPIs. The information is collected in a desk review and will be used to populate the CRVS-SAR tool. The core team should list the baseline performance and desired target performance for each KPI. See **Table 8** for an example of the CRVS-SAR tool with this information completed. Desired target performance may be derived from the national CRVS strategy, vision and mission of the CRVS system, as well as the collective judgement of the core team and international best practices.

The types of documentation to be consulted for the desk review might include the following:

- Constitutional provisions, policies, laws, rules, regulations, and any other part of the local legal framework that is directly or indirectly related to matters of CRVS
- Any forms used in the CRVS system
- Standard operating procedures from the CRVS system
- Current plans for CRVS system rollout or improvement, such as current strategic action plan
- Reports, descriptions, or evaluations of the CRVS systems published by government, non-governmental organizations, academia, or other sources
- Previous (for example, comprehensive or rapid) assessment reports, if any

To ensure that the stakeholders performing the desk review have a detailed understanding of current business processes, the previously developed process description templet and maps of the as-is processes should be made available to them.

TABLE 8:
CRVS-SAR tool for the process of timely registration and certification of a birth occurring at home with example KPIs, baseline performance, data collection methods/ sources, and desired target performance filled.

KPI	Baseline information	Data collection methods/ sources	Desired target	Performance issues	Root causes	Root cause category	Redesign ideas	Affected stakeholders
Client-centric								
Average distance to registration service	>20 KM (rural) ~5 KM (urban)	National Statistics Office Geographic Information System Report	< 5 KM					
Number of visits needed to register and certify the vital event	4 (1. report to local authority, 2. Report to local health facility 3. apply for registration on district registration office, 4. pick up certificate)	CRVS comprehensive assessment	1					
....	.....	...	....					
Service provider–centric								
High-level Interagency CRVS Coordination Committee at the national level exists and is functional	Yes, but not functional	CRVS comprehensive assessment	High level CRVS Coordination Committee is officially constituted with TOR and membership and meets regularly					
Technical Interagency Coordination Committee at the national level exists and is functional	Yes, but not functional	CRVS comprehensive assessment	Technical Coordination Committee is officially constituted with TOR and membership and meets regularly					
....	.....	...	....					

3.7 Constitution of task teams

To support the remaining steps of Stage 1, the core team should constitute task teams as appropriate to the scope and scale of the process review. Team members should be drawn from various key stakeholder institutions within and outside government. These persons should have firsthand information about how the CRVS system functions in practice at the national, provincial, and local levels. It would be advisable to also include local registrars and other staff from the periphery. All major stakeholder institutions should be invited to participate in the task teams. They may include:

- Registration officers at various administrative levels
- Producers and users of vital statistics (including causes of death)
- Other relevant government agencies involved in the CRVS process (such as the health sector)
- Relevant development partners
- Donors working in this area or benefiting from CRVS
- Non-governmental and civil society organizations working in this area
- Those whose operations could provide links for extending service points (for example, health sector staff)
- Academic institutions and researchers with recognized experience in relevant areas

The task teams should be organized in thematic groups dealing with specific aspects of the CRVS systems. Depending on the CRVS business processes being improved, it is proposed that up to five task teams be established:

- Policy and legal framework (this task team should be established for every implementation of the framework);
- Operational aspects for birth and death registration;
- Operational aspects for marriage and divorce registration;
- Cause of death; and
- Vital statistics.

The task teams should be large enough that there can be a further division of assignments within the teams. Therefore, each task team is recommended to have at least four or five members, with no more than six to eight. The scope of work, the ways in which the task team can be subdivided, and the range of methods to be employed should be considered when forming the teams.

The core team should make an informed choice about the composition of the task teams. It is important that persons with knowledge and experience in a thematic area be included. For example, a person from a statistical agency should be included in a team that deals with vital statistics. However, this does not mean that all available staff from the statistical agency should be included in the vital statistics team; for example, some can be included in birth and death registration groups, which may help to identify issues with the delay in transmission of statistical data or issues with data quality.

The task teams should be constituted using the means available through the national processes. In most countries, it will be necessary to contact the organizations and agencies involved in the country's CRVS system and invite them to designate representatives with specific backgrounds and profession-

al characteristics. The nominating institution should be clear on the nature of the commitment — for example, whether the individual is required for the entire assessment, analysis, and redesign Stage, and whether it is to be on an as-needed, full-time, or part-time basis.

The core team will need to identify a task team leaders based on expertise and government functionary level, preferably the most senior in the group.

Once the task teams are developed, the core team will communicate their composition to the Technical Working Group, which, after reviewing and approving the list, will send it to the government through appropriate channels for approval and the issuing of requests for participation.

3.8 Analysis of performance of current CRVS system processes

The objective of this task is to identify issues and bottlenecks that affect the performance of current CRVS processes, along with their associated root causes. The core team should organize a workshop to complete this task. The workshop will utilize the performance information gathered in the CRVS-SAR tool. In addition, it will function as a key forum to gather all stakeholders, including task teams and clients of the CRVS system, empower them to jointly identify any performance issues in the CRVS system, and create further buy-in to strengthen the system. Participation of the CRVS system's clients (for example, families or other members of the general public) in selected sessions of the workshop (for example, Session 2) should be considered. Involvement of these stakeholders will allow direct contact with the audience and bene-ficiaries of the improvements being developed and provide unique insights (what works, what does not, etc.) from their perspective. This human centred approach also affords them a better understanding of considerations for the implementation and change management of any improvement. A recommended list of sessions and their deliverables for the workshop is shown in **Table 9**.

TABLE 9:
Sessions and deliverables for the as-is CRVS system assessment and root cause analysis workshop.

Sessions	Deliverables
Session 1 — Review and update the vision, mission, and core values of the CRVS system	Updated vision, mission, and core values
Session 2 — Review and update the as-is CRVS process descriptions and maps	Updated as-is CRVS process description and maps
Session 3 — Review and update the CRVS-SAR tool (including targets)	Updated CRVS-SAR tool (including targets)
Session 4 — Analyze the as-is CRVS process to identify performance issues	Further updated CRVS-SAR tool (including performance issues)
Session 5 — Identify root causes of CRVS process performance issues	Further updated CRVS-SAR tool (including root causes and root cause categories) as well as outputs of all individual root cause analyses
Session 6 — Develop workshop outputs and prepare for the field assessment	Compiling of all deliverables listed above in preparation for the field assessment

A key component of the workshop is the review of the CRVS business process maps. If the team will undertake mapping using modelling software, the workshop should include someone with business process modelling software skills. Given the importance of this workshop for Stage 1, the core team should meet with facilitators of the workshop beforehand (if facilitators are being used) to make sure the team members are adequately briefed on currently available CRVS process descriptions and maps and the information in the CRVS-SAR tool.

Below are further details about the suggested workshop sessions and the work to be done in them.

Session 1. Review and update of the vision, mission, and core values of the CRVS system

As the vision, mission, and core values of the CRVS system guide the overall improvement effort, these should be reviewed in Session 1 of the workshop. The core team should present the vision, mission, and core values to the workshop participants, and the workshop should allow for discussion about them if needed. The session should conclude with re/endorsed and fully agreed-upon vision, mission, and core values, or a defined path to getting the necessary endorsement of these key guiding principles.

Session 2. Review and update of the as-is CRVS process descriptions and maps

In Session 2, participants should jointly review and correct the as-is CRVS process descriptions and as-is CRVS process maps based on their collective knowledge of the CRVS business processes. This review and corrections should be a collaborative and interactive effort involving the facilitator and the

participants. During the session, the facilitator will present and explain the current, as-is process descriptions and maps. Participants will then be given the opportunity to review each process description and map to determine their correctness and completeness. In reviewing and updating these materials, workshop participants should examine the processes from the client's point of view — the clients being families trying to register and obtain a certificate for the vital event. To achieve this, participants may be asked to recall personal experiences with registering a vital event in their family. To further ensure that the client perspective is fully accounted for in the review and updating session, the core team may also want to bring in a few members of the public who are unconnected with anyone within the process to provide insights into their experiences during the registration of a vital event.

As an example, the process reviews in this session can be done in smaller groups, as shown in **Table 10**. After the session, each team will have separate sessions with the facilitators, who will modify the process maps as needed. The facilitator will work with the process modeling expert and prepare updated process maps that will be presented to workshop participants in a plenary session for final discussion as applicable. This updating is expected to lead to accurate process descriptions and process maps and to help identify areas for improvement. The collaborative work in this session is expected to generate broad agreement on the details of the design of the as-is CRVS processes.

TABLE 10:
Distribution of task team members for the review of the as-is process maps.

CRVS process	Suggested groups: Task teams	Members from other groups
Birth registration (occurring in a health facility or at home)	Operational aspects of the civil registration and certification of births both at home and in health facilities[12]	1 or 2 participants each from the task teams on policy and legal framework and on vital statistics
Death registration (occurring in a health facility or at home) and causes of death	Operational aspects of the civil registration and certification of deaths both at home and in health facilities[13]	1 or 2 participants each from the task teams on policy and legal framework, vital statistics, and cause of death
Marriage and divorce registrations	Operational aspects of marriage and divorce registration	1 or 2 participants each from the task teams on policy and legal framework and on vital statistics
Vital statistics production	Operational aspects of the production of vital statistics	1 or 2 participants from the task teams on policy and legal framework

Session 3. Review and update of the CRVS-SAR tool (including targets)

In this session, workshop participants will review all information previously collected in the CRVS-SAR tool. This will again be an interactive and consultative session in which participants will have an opportunity to bring in relevant

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12 This task team will be split into two groups. One group will review and update the as-is maps on births at home, and the other group will review and update those on births in health facilities.
13 This task team will be split into two groups. One will review and update the as-is maps on deaths at home, and the other group will review and update those on deaths in health facilities.

perspectives and additional information on the appropriateness and efficacy of the indicators included in the CRVS-SAR, the baseline information already collected, and the proposed targets.

Next, workshop participants will elaborate on the targets for all key performance indicators (KPIs) in the CRVS-SAR tool. Targets should be drawn where possible from existing national CRVS development plans.

Based on the inputs from this session, facilitators will prepare a final list of KPIs for each of process being examined and the corresponding baseline information and desired target, in the form of an updated version of the CRVS-SAR tool. **Table 8** provides an example of this update.

Session 4. Analyze of as-is CRVS processes to identify performance issues

In this session, participants examine the updated process maps and CRVS-SAR tools, including updated baseline information and targets, to get an in-depth understanding of the issues, bottlenecks, and problems that may affect the performance of the CRVS process. Identifying the performance issues should again be a collaborative and interactive effort among workshop participants with the assistance of the facilitators.

During the session, facilitators will provide a hands-on introduction to process analysis by using an example to illustrate the work for all workshop participants. Using the selected example, participants, led by the facilitators, will do the following:

· For every KPI, carefully examine the baseline performance against the target performance to determine if a performance gap exists. A large performance gap indicates a performance issue. For example, **Table 8**, the KPI "Average distance to registration service" shows that in rural areas, the average distance to the registration service is over 20km, whereas the desired target is less than 5km. Similarly, for the KPI of "Number of visits needed to register and certify the vital event", 4 visits are currently needed, whereas the target is one single visit. In these cases, the performance gap is large.

· Update the CRVS-SAR tool based on the identified performance issues by describing the performance issue in the tool. In the example in **Table 11**, the performance issues for the KPIs mentioned above are described as "Distance from home to registration service is too far and "Family must make multiple visits to different distant locations before receiving the certificate". The performance statement articulates a problem in the birth registration and certification processes that needs to be addressed.

After the an orientation, the participants will be given the opportunity to investigate other KPIs and to identify all of the applicable performance issues for the KPIs in the CRVS-SAR tool. Completing this information in the CRVS-SAR tool can be done in breakout sessions, depending on the number of business processes under review. Participants will follow the two steps listed above to identify performance issues, articulate problem statements, and update the CRVS-SAR tool. Teams will present their results in a plenary session for final validation.

TABLE 10:
CRVS-SAR tool to identify performance issues and problems.

Session 5. Identify root causes of CRVS process performance issues

In this session, workshop participants perform a root cause analysis to identify the underlying causes of the performance issues identified in Session 4. Common tools that can be used for the root cause analysis include the Pareto chart, the '5 Why's,' a fishbone diagram, a scatter diagram, and failure mode and effects analysis.[14],[15] This framework uses the fishbone diagram. The key steps to applying the fishbone diagram are:

1. Draw the problem statement
2. Draw the major cause categories
3. Brainstorm causes
4. Determine deeper causes
5. Identify root causes

Identified root causes will then be transferred into the CRVS-SAR tool.

In this session, participants will be given a hands-on introduction to using a fishbone diagram to do root cause analyses. Following the introduction, the facilitators, working collaboratively with workshop participants, will identify the root causes of all performance issues identified in Session 4. This is preferably done in small groups. The different causes identified above are defined based on their level of influence on the issue being addressed. In the course of the session, the initial major cause categories are investigated to identify more fundamental causes, i.e. the deeper causes, from which the root causes are identified.

Key activities during this session include the following:

1. **Draw the problem statement**
   The first step of any problem-solving activity is to define the problem. The problem statement is a performance issue discussed in Session 4 above. Participants should review and agree on the CRVS process performance issue, i.e. the problem statement (also referred to as the problem/effect). Participants should make sure they define the problem correctly and that everyone agrees on the problem statement. For example, from Session 4, the possible performance issue could be "Family must make multiple visits to different distant locations before receiving the certificate."

   Once the problem statement is ready, write it in the box on the right-hand side of a large sheet of paper and draw a line across the paper horizontally from the box, as shown in **Figure 2**. This arrangement, looking like the head and spine of a fish, gives space to develop ideas and identify the root cause of the issue.

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14 Barsalou, M.A. 2015. Root Cause Analysis: A Step-by-Step Guide to Using the Right Tool at the Right Time. Productivity Press
15 Common root cause analysis tools: beaconquality.com/blog/5-root-cause-analysis-tools-for-more-effective-problem-solving/

FIGURE 2:
Fishbone diagram — problem statement.

Family must make multiple visits to different, distant locations before receiving certificate
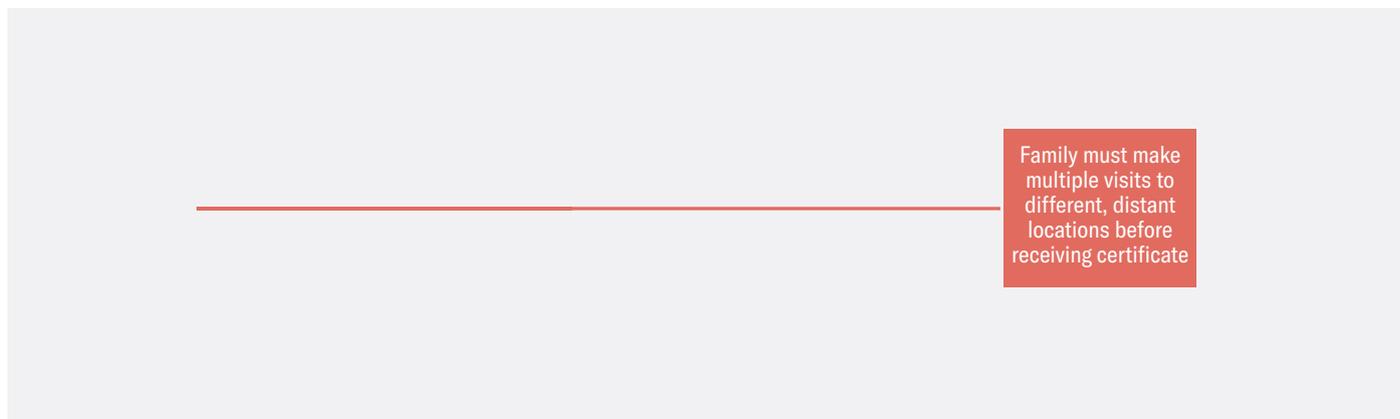
2. Draw the major cause categories

After the problem statement has been placed on the diagram, agree and draw the major cause categories on the left-hand side and connect them to the "backbone" of the fishbone chart (see **Figure 3**).

Major categories often include the process itself as well as factors in the enabling environment. In CRVS process analysis, the suggested categories are

· business process;

· policies, laws, and regulations;

· management and coordination;

· human resources;

· physical infrastructure; and

· information technologies.

FIGURE 3:
Fishbone diagram with major cause categories.
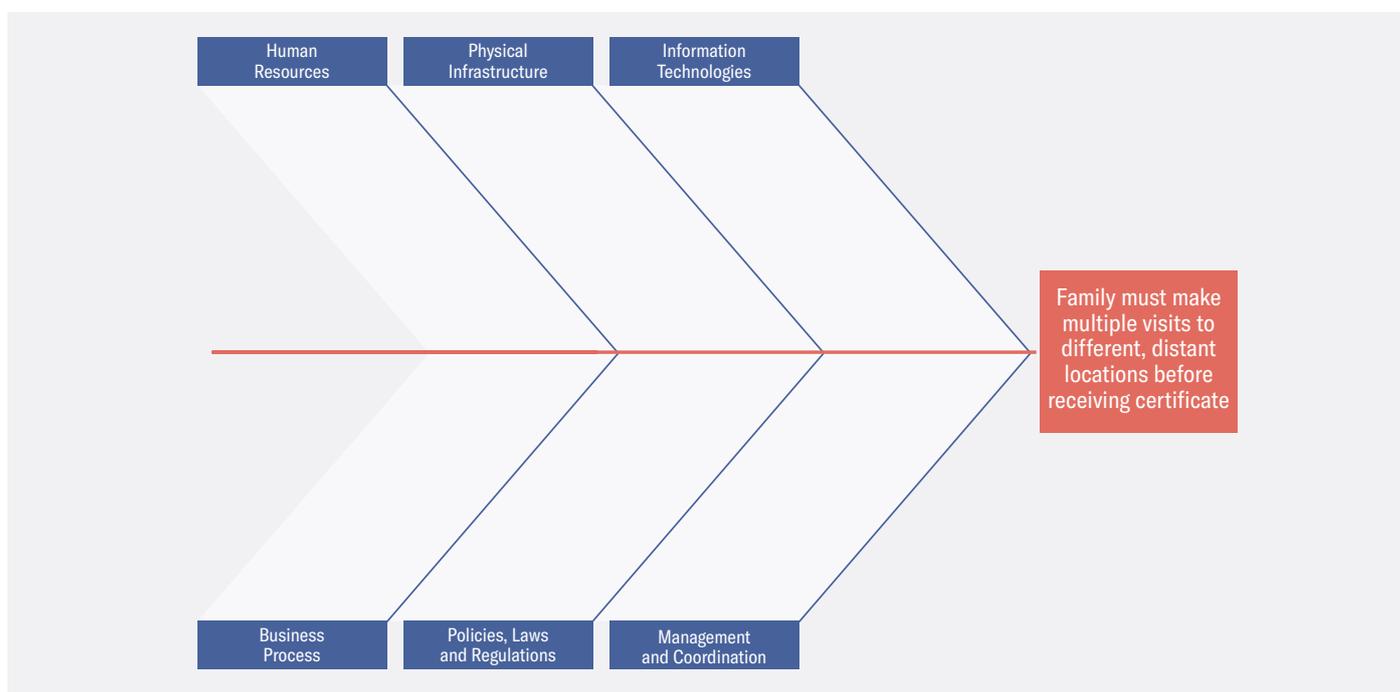
3. Brainstorm causes

Most of the effort in the process of creating the fishbone diagram involves brainstorming the causes of the problem.

- The participants and the facilitators should examine the process map and problems identified in order to generate a list of causes without being constrained by the major cause categories for any identified performance issue or problem. In this way, they can establish which activity or aspect of the process leads to the performance issue and ask why this activity leads to the issues or problems. For example, using the example process map shown in **Figure 1** reveals the following:

  - The family must visit three different locations to declare the birth of a child. Participants should discuss why it is necessary to visit three different locations for a birth to be declared. In this example, the family must obtain a proof of birth and then a birth notice before they can declare the birth. They must physically travel first to the local authority, then to the local health facility in order to obtain the necessary documentation to declare the birth. Registration can only occur at a third location — the subnational civil registration office. These become primary root causes (see **Figure 4**).

  - The family must visit the subnational civil registration office twice, once to declare the birth and a second time to obtain the certificate. In total, then, the family must make at least four visits to three different locations before birth is certified. There are several possible reasons for this. In the example, a time lag between declaration, registration, and certification requires the family to leave the subnational civil registration office and return at another time. Also, as mentioned above, the subnational office is the only location to register and certify births, so the family must go to the subnational registration office.

Once the list of causes has been generated, participants can start to place them in the appropriate category on the diagram. Ideally, each cause should be placed in only one category. However, some human-resources causes may belong in multiple categories. For example, a lack of training may be a legitimate cause for both the incorrect use of information technologies and a lack of understanding of the business process.

Sometimes the major cause categories can be used as catalysts to generate ideas. This is especially helpful when the flow of ideas starts to slow down. Brainstorm about all the possible causes of the performance issue by asking, "Why does this happen?" As each idea is given, the facilitator writes the cause on the branch from the appropriate category.

Figure 4 presents the primary causes of "Family must make multiple visits to different, distant locations before receiving certificate."

FIGURE 8:
Fishbone diagram — primary causes.
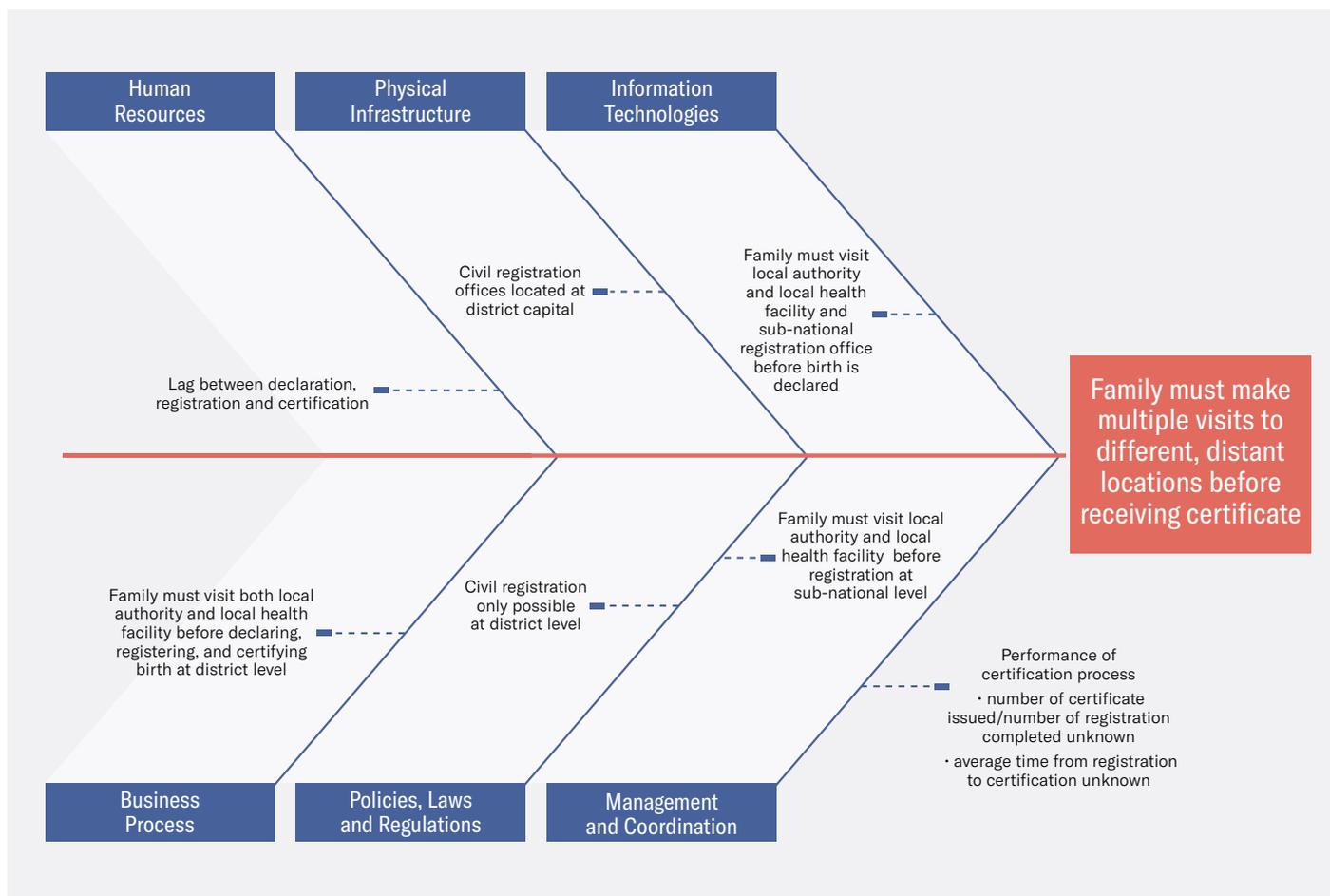
4. Determine deeper causes

Following the initial identification of causes, each cause on the chart is then analyzed further to determine if there is a more fundamental reason behind the identified cause. This can be done by asking, "Why does it happen?" Write secondary causes branching off the cause branches.

Continue to ask "Why?" and generate deeper levels of causes. Continue organizing them under related causes or categories. Use participants' judgement to decide when to stop. For example, the reason for the multiple visits to register and certify the birth are that the law mandates that the families obtain proof of birth from the local authority, a birth notice from the health facility, and then registration at the subnational registration office. **Figure 5** shows the fishbone diagram for the deeper causes of why the current situation requires multiple visits to different, distant locations before receiving a certificate.

FIGURE 5:
Fishbone diagram — deeper causes.
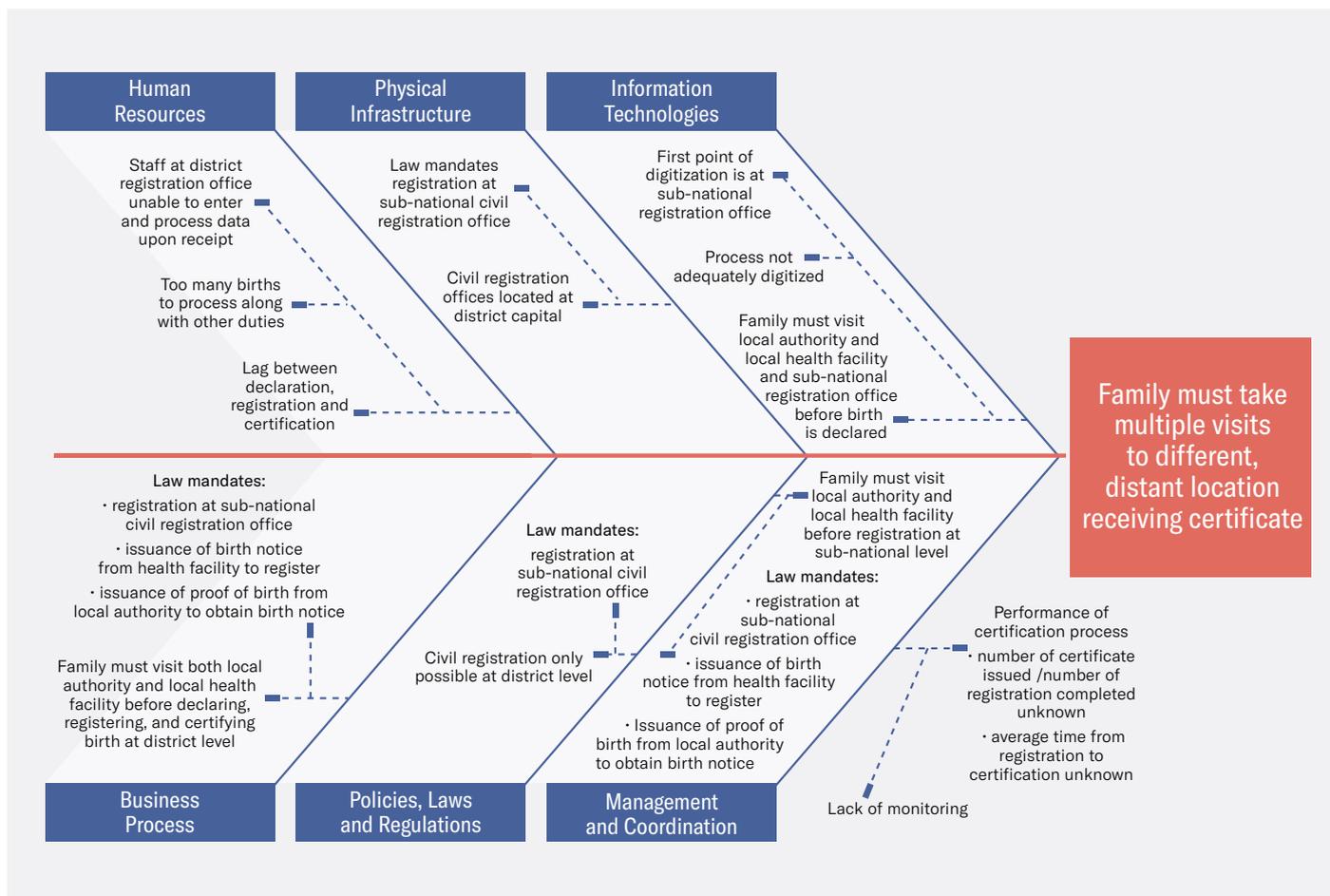
5. Identify root causes

The final step in creating a fishbone diagram is to pinpoint the root causes of the problem. This can be accomplished by identifying the root causes from the deeper causes using group consensus methods, or based on frequency of occurrence of the deeper causes.

In our previous example, the root causes of the need for multiple visits are requirements in the CRVS legal framework, human resource limitations, and manual rather than digitized processes. For additional examples of root cause analysis, see **Annex I**.

All the causes listed in the fishbone diagram should be verified with information obtained from available documentation on the CRVS system (for example, if there is a requirement for a particular step in the legislative framework, refer to the specific legal document). At the end of the session, the results of each team will be presented to the workshop participants in a plenary session for final validation. The developed fishbone diagrams are to be collected and archived in a way that clearly links them to a particular problem of a business process that was evaluated.

6. Enter the identified root causes into the CRVS-SAR tool

Update the information in the CRVS-SAR tool by populating identified root causes. **Table 11** presents, in the CRVS-SAR tool, the root causes of the CRVS

process performance issues related to the family having to make multiple visits to different, distant locations before receiving a certificate, along with root cause categories.

Session 6. Develop workshop outputs and prepare for the field assessment

In the final session of the workshop, participants should consolidate all the sessions' deliverables and ensure that all information captured is included in the CRVS-SAR tool for the relevant business process. They should also make sure that all documentation produced, process performance data collected, and findings from the root cause analysis of performance issues, are all archived in an orderly way so that the information can be retrieved as needed.

During this session, the core team should also prepare stakeholders for the field assessment. The purpose of the field assessment is to validate and confirm information collected in the CRVS-SAR tool (such as the existence of performance issues and the root causes of these issues) and begin identifying redesign ideas to address the root causes of performance issues. The field assessment will not have a formal questionnaire. Instead, it can be done by examining and discussing steps in the business processes at the civil registration centers and other locations where these steps occur. Prior to the field assessment, questions for such validation can be formulated as needed.

Guided by the scope and scale of the CRVS process for improvement, the core team should create the field assessment teams. The composition of these teams will be made up of members from the five task teams[16] and should be cross-cutting rather than thematic, to ensure that each team can assess the processes and operational capability aspects of the CRVS process being addressed or the entire CRVS system where applicable. Each team will have a leader to coordinate the fieldwork and make sure that it is going according to plan, that field notes are written daily, and that a field report is prepared and submitted at the end of the field assessment.

Once they are assigned to teams, team members will be oriented on the assessment methods to use during the field visits. The orientation will expose the teams to the proposed methods of data collection, as discussed below. Some practical exercises could be built into the orientation. For example, there could be field visits organized to communities near the workshop venue to give field teams an opportunity to learn how to validate the findings in the CRVS-SAR tool for a given business process. This will facilitate understanding of the field assessment requirements and help teams plan and make decisions appropriately.

3.9 Field assessment

It is important that the information gathered in the CRVS-SAR tool through desk review and stakeholder consultations be validated through a field assessment. The assessment should aim to collect any information that is required to validate and complete the information captured in the CRVS-SAR tool. The field assessment is also a further opportunity to connect the activities of Stage 1 to insights from the general public, who are key beneficiaries of improvements in the CRVS system. Connecting to the clients of the CRVS system in the course of the field assessment will allow for a human-centered approach to the assessment and provide key insights for system improve-

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16   Some of the other stakeholders can be included as part of the field team, such as staff representing development agencies, non-governmental organizations, civil society organizations, members of academia, and even medical doctors.

ments. Additionally, the field assessment also helps in the process of developing redesign ideas to address the root causes of identified performance issues.

The scope of the field assessment and decisions on which information in the CRVS-SAR tool needs validation will depend on the level of detail already collected in the CRVS-SAR tool about business processes, performance issues, and root causes. Field teams should discuss their plans with the core team to ensure that the validation of information can be done without teams spending time to confirm aspects of the CRVS business processes that are already well known or documented.

For more information, see **Annex J**.

Each team carrying out the assessment should prepare a field report that includes a narrative on the actual observations, notes, photographs and videos, and recording of interviews and focus group discussion, as applicable. Field reports should also consolidate any comments on the CRVS-SAR tool or the description of the as-is business processes.

The report may also include recommendations for redesigned processes and possible requirements in terms of the enablers; this information is to be captured in the "Redesign ideas" column of the CRVS-SAR.

After completing the field assessment, each task team leader should finalize a report with team input, and decide how to incorporate the findings into the CRVS-SAR tool and as-is business process maps and descriptions to prepare for redesign activities. The update process can involve task team leaders or field assessment members as needed.

3.10 CRVS process redesign

The purpose of redesigning is to generate ideas to improve the existing CRVS processes to address issues identified in the assessment and analysis Stage. The core team leads the redesign process.[17] Inputs available to the team are the updated CRVS-SAR tool (**Table 11**) and the as-is CRVS process descriptions and maps.

The output of this process is the consolidation, validation and documentation of redesign ideas, including as-desired CRVS process descriptions and process maps, as well as the completion of the "Redesign idea" and "Affected stakeholders" columns of the CRVS-SAR tool. The redesign steps are outlined in the following sections.

3.10.1 Identify and propose potential redesign ideas to create a better process

The core team should brainstorm ways to improve the performance of CRVS processes given the information included in the CRVS-SAR tool and the Field Assessment. The team should focus on solutions to the root causes of performance issues. The activities and resources listed in **Annex K** can be applied to help establish more effective and innovative redesign ideas.

Steps to be followed are described below:

1. The team should identify redesign ideas to solve each performance issue and root cause and record those ideas in the CRVS-SAR tool.

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17   If the core team has the appropriate skills and expertise with both CRVS and business process improvement, they can proceed with the redesign activity. If they need additional advice, they should seek support locally or internationally.

2.Identified redesign ideas should be discussed until the team reaches a consensus, with ideas documented in the CRVS-SAR template. If the team cannot reach consensus after everyone's ideas and positions have been heard, the team will have to accept that several design variations will exist at this stage and that the issue needs to be discussed again later, possibly by involving other stakeholders to reach a decision. This process may also entail revisiting the business process description and map and may involve several iterations to reach a decision.

Table 11 presents redesign ideas that would address performance issues and their root causes documented in the CRVS-SAR template from the earlier birth-registration example. For example, as shown in the table, one of the performance issues is that a family must make at least four physical visits to the civil registration office to complete birth registration and obtain certificates. In this case, the pertinent question is "How can the process be simplified for the family?" To answer this, the team will examine the root causes, which include, for example, the lack of digitization of process and requirements in the CRVS legal and regulatory framework. Solutions to address these root causes might include proposing to establish regulation that would allow community health workers to act as informants for civil registration of birth.

TABLE 11:
Complete CRVS-SAR tool for the process of timely registration and certification of a birth occurring at home with example KPIs

KPI	Baseline information	Data collection methods/ sources	Desired target	Performance issues	Root causes	Root cause category	Redesign ideas	Affected stakeholders
Client-centric								
Average distance to registration service	>20 KM (rural) ~5 KM (urban)	National Statistics Office Geographic Information System Report	< 5 KM	Distance from home to registration service is too far	law mandates registration at Civil Registration office at subnational (for example, district) level	· **Policies, Laws and Regulations**	Change legal framework to allow local health facility staff to act as informants for the civil registration of birth	Family, civil registration office at subnational level, local health facilities, central civil registration office
Number of visits needed to register and certify the vital event	4 (1. report to local authority, 2. Report to local health facility 3. apply for registration on district registration office, 4. pick up certificate)	CRVS comprehensive assessment	1	Family must make multiple visits to different, distant locations before receiving certificate	· Law mandates registration at subnational level civil registration office · Law mandates registration with birth notice from health facility · Law mandates the issuance of proof of birth from local authority to receive birth notice · Too many births to process along with other duties (leading to lag between registration and certification) · Process not adequately digitized · Lack of monitoring	· **Policies, Laws and Regulations** · **Business Process** · **Human Resources** · **Information Technologies** · **Management and coordination**	· Establish regulation to allow Community Health Workers (for example, traditional birth attendant, midwife or village health workers) to act as informants for the civil registration of birth · Allow Community Health Workers to complete and submit birth registration application form · Link electronic data capture at health facilities, district hospital, or other data entry location to central civil registration IT system to adequately digitise the process · Allow Community Health Worker to pick up certificates and deliver to family · Implement monitoring system to measure performance of certification process (number of certificates issued, number of registration completed, and average time from registration to certification)	Family, local health facilities, Community Health Workers, civil registration office at subnational level central civil registration office, central ministry of health
….	…..	….	….	….	· ….	· ….	· ….	…..
Service provider–centric								
High-level Inter-agency CRVS Coordination Committee at the national level exists and is functional	Yes, but not functional	CRVS comprehensive assessment	High level CRVS Coordination Committee is officially constituted with TOR and membership and meets regularly	High level CRVS Coordination Committee exists but no regular meetings, no endorsed TOR, no defined membership	· Designated lead agency with insufficient authority to convene other stakeholders · Functioning High-Level CRVS Coordination Committee not prioritized by country leaders	· **Management and Coordination** · **Policies, Laws and Regulations**	· Advocate with country leaders to prioritize CRVS system governance and ensure functioning of High-Level CRVS Coordination Committee · Legal framework designates lead agency for High-Level CRVS Coordination Committee with necessary authority to convene other stakeholders	Country leaders, future High-Level CRVS Coordination Committee members
Technical Inter-agency Coordination Committee at the national level exists and is functional	Yes, but not functional	CRVS comprehensive assessment	Technical Coordination Committee is officially constituted with TOR and membership and meets regularly	Technical Coordination Committee exists but no regular meetings, no endorsed TOR, no defined membership	· No functional or active High-Level CRVS Coordination Committee	· **Management and Coordination**	· High-Level CRVS Coordination Committee appoints Technical Coordination Committee	High-level CRVS Coordination Committee, future members of Technical Coordination Committee
….	…..	….	….	….	· ….	· ….	· ….	…..

3.10.2 Consolidate and prioritize the potential redesign ideas

In this stage, the core team consolidates and prioritizes the identified redesign ideas. The steps to arrive at this are outlined below.

Step 1: Consolidate the potential redesign ideas

Once the redesign ideas for each root cause and performance issue have been identified, they are integrated to form an overall set of redesign ideas for each CRVS process. The redesign ideas need to be grouped based on root cause category so that similar ideas are identified and duplicates eliminated.

Step 2: Identify quick wins

Major changes and continuous improvement efforts, take time. Complex efforts to change strategies, restructure organizations, and re-engineer processes need to capitalize on quick wins by identifying short-term gains from the consolidated redesign ideas. The quick wins need to be identified before starting the exercises on prioritizing recommendations and redesign ideas. Quick wins, which are short term and less expensive to implement, favor success. A set of rules[18] for managing quick wins that will increase the likelihood of delivering early gains could be:

· Define "quick wins"
· Agree on what you want to fix and stick to your scope
· Apply the core values for the CRVS system to improve the agency's image
· Communicate regularly with all stakeholders

Countries can establish their own set of rules for quick wins. This should be done in a group discussion among key CRVS stakeholder agencies. Examples of quick wins are given in **Table 12**.

TABLE 12:
Examples of quick wins.

No.	Quick wins	Description	Benefit
1	Local civil registrar's quality assurance (QA) checklist	Roll out a QA checklist in all registration offices	Improve the quality of documents submitted to the registration office at each level to reduce duplicate work and return of applications
2	Civil registrar uses an interim dispatch process to the next higher office	Implement a refined dispatch process at registration offices (presorting of applications)	Reduce the time it takes to send applications from the local registration office to the next higher or head office
3	Single courier service	Combine pickup of applications and delivery of birth certificates	Reduce turnaround times

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18 This set of rules was adopted from Kotter, J. 1996. Leading Change. Harvard Business School Press; and from Wicinska, A. 2009. Making Quick Wins Your Springboard to Success. paconsulting.com/newsroom/expert-opinion/cio-update-making-quick-wins-your-springboard-to-success-4-november-2009.

4	Signage	Install signs outside the building indicating where clients should line up for services (birth, death, marriage), the legally stipulated time frame for registration, and documents required	Clients line up in the correct line
5	Seating area for clients	Designate and furnish a seating area for clients to facilitate waiting	Clients are waiting in a designated seating area, resulting in improved client satisfaction

Step 3: Prioritize potential redesign ideas

The results of the framework's first Stage — the collective identification of problems, opportunities, and their causes — can lead to a long list of issues to address. Prioritization brings different stakeholder perspectives together to seek agreement on the main problems and opportunities and their respective priorities. Once quick wins have been identified and removed from the consolidated redesign ideas, the remaining ideas are prioritized in favor of those that would bring about major shifts in CRVS system improvement. The recommended prioritization methodology is summarized below.[19] This prioritization likely will be revised in the course of developing the strategic action plan (Stage 2 of the framework). After a complete evaluation of each of the activities required for improvement of the system (for example, cost estimates) is completed and constraints considered, the priority and feasibility of activities may change.

Scoring

Evaluating and estimated scoring will be done according to four criteria:

· Urgency: the extent to which the recommendation are critical and needs to be urgently implemented

· Feasibility: the ease with which the recommendation could be implemented, given departmental roles and responsibilities in government, and cultural traditions

· Cost: the costs associated with implementing the recommendation and the likelihood of obtaining funding from different internal and external sources

· Timeline: the period required for full implementation of the recommendation

Four scenarios are provided for each criterion, as shown in **Table 13** below. Scenarios are then scored from 1 to 4 depending on estimates of urgency, feasibility, cost, and timeline, with the highest priority score being 4 and the lowest being 1. Scores across the four criteria are then calculated, giving a summary score for each recommended improvement goal. The higher the score, the higher the priority for implementing the recommendation. The four criteria were chosen to reflect the critical dimensions of any deliberative process that countries are likely to follow to decide upon the relative priority of recommendations. The expected impact should be noted beside each issue.

As shown in **Table 15** and for simplicity, we suggest that for the scoring of

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19   This guidance was developed based on the prioritization matrix proposed by the World Health Organization and the University of Queensland: Strategic Planning to Strengthen Civil Registration and Vital Statistics Systems. getinthepicture.org/resource/strategic-planning-strengthen-civil-registration-and-vital-statistics-systems-guidance/

impact, only a qualitative scoring system of high, medium, and low impact be used. As mentioned above, this scoring will be based on initial estimates of the requirements to implement a suggested re-design. A more detailed assessment of the requirements to implement the suggested redesigns will happen during the development of the strategic action plan (Stage 2 of the framework), and the final redesign described in the strategic action plan may need to be adjusted as participants better understand the requirements and constraints (e.g., cost) attendant to the redesign.

TABLE 13:
Criteria for prioritization and scores.

Urgency	4	Should start immediately
	3	Could be delayed for up to 6 months
	2	Could be delayed for up to 2 years
	1	Could be delayed until able to be done
Feasibility	4	Necessary action can be decided at the departmental level
	3	Requires interdepartmental agreement
	2	Requires legislation change
	1	Requires change in tradition, culture, or policy
Cost	4	No cost implications
	3	Can be funded within current budget
	2	Need to apply for government funding
	1	Need to find external resources
Timeline for completion	4	Less than 3 months
	3	3 months to 1 year
	2	1 to 5 years
	1	More than 5 years
Impact	H	High
	M	Medium
	L	Low

Ranking

Once all issues listed in the assessment, analysis, and redesign report have been evaluated and scored, they should be ranked in decreasing order of priority within each of the three impact bands. In the case of a large number of suggested improvements, it is further recommended that countries reduce these by considering only those that score above a certain cut-off point or focusing only on the high-impact ones.

3.10.3 Create desired CRVS process maps

After consolidating and prioritizing the redesign ideas, the team should create the desired CRVS process descriptions and maps. To develop the desired process map, the team can modify the as-is process map by introducing redesign ideas, or they can create the process map from scratch. The task of creating the desired process map should be carried out by the technical staff familiar with undertaking process mapping. Before beginning, the team should update the process description (see **Annex E**). An example of an as-desired process map is shown in **Figure 6**.

FIGURE 6:

Desired business process map for the timely civil registration and certification of a birth occurring at home
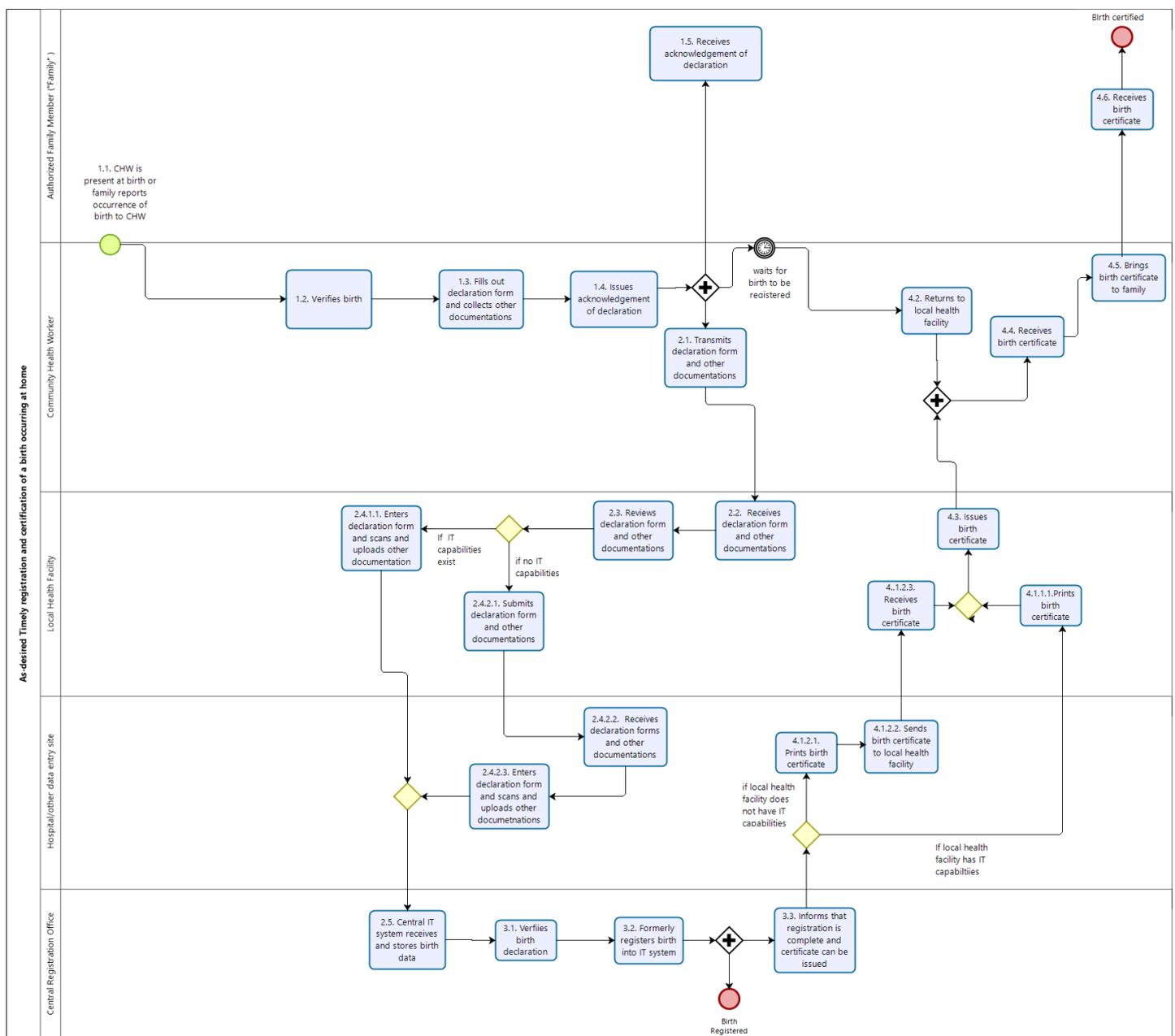
3.10.4 Test the proposed redesign ideas

After creating the desired process map, redesign ideas should be tested so the team can make corrections if necessary. Testing helps the team find unexpected problems in the process. The team may envision several alternatives for improving the redesign and test each one to determine which works best. After gathering as many ideas as possible, multiple options are analyzed and compared in terms of the chosen performance measures. Eventually, the most promising change options are combined, leading to a redesigned process.

The team may use one or both of the following as testing mechanisms:

· **Role-playing:** Have team members act out the proposed process to see how well it works. Assign someone to take the role of a family/informant, others the role of the government officials, and, as applicable, other stakeholders. Create artificial but realistic scenarios for registration or certification and ask each person to play their role while carrying out the process. Observe how things go, looking out for bottlenecks or other issues with the changed process.
· **Practice:** Have the people who will be using the actual improved process try out the redesign. Look for difficulties or surprises that may indicate problems with the proposed redesign. Seek feedback from staff testing the redesign to get their opinions about the changes.

3.10.5 Examine the implications of potential redesign on enablers

After designing and testing the redesigned processes, the team should examine how the new process might affect the enabling environment, as part of determining the feasibility of the redesign. This task should be carried out by the redesign team and core team through a consultative process, ideally in a meeting with only a few relevant stakeholders. The team should discuss and document the changes needed for each organizational capability to implement the new process. **Table 14** provides an example of the operational capability requirements needed to implement the redesigned birth registration process to decrease the number of visits needed to register and certify the vital event. Depending on the implications of the redesign, the team may decide that the proposed processes need further changes.

TABLE 14:
Redesign's implications for enablers.

Enablers	The implication of the new process on the capabilities
Business process	The Community Health Workers will complete and submit the birth registration application and pick up the birth certificate on behalf of the family. The health facility, hospital, or other data entry point will enter registration information into the central IT system and print the birth certificate. Therefore, the CRVS organizational structure will change.
Human resources	Community Health Workers and staff at health facilities, hospitals, or other data entry points will need to be trained on the new process, forms, and technological requirements.
Information technologies	The new process will require an IT solution that will link electronic data capture at health facilities, district hospitals, or other data entry locations to the central civil registration IT system.
Policies, laws, and regulations	The legal and regulatory framework must be amended to: • Establish Community Health Workers as informants for the civil registration of birth • Allow registration information to be entered and birth certificates to be printed at a health facility, hospital, or other data location • Permit Community Health Workers to pick up and deliver birth certificates to family
Management and Coordination	A monitoring system will need to be designed, implemented, and managed to allow for measurement and reporting on the performance of the certification process.
Physical Infrastructure	Health facilities, hospitals, or other data locations will have to be assessed for ability to accommodate new services and adjusted accordingly.

3.11 Finalize the Stage 1 report

The core team, after finalizing the proposed redesign for the CRVS system, will initiate the drafting of the Stage 1 report. The report should include:

· the objective of the Stage 1 exercise

· the approach and methodology used

· the current status, which will include the as-is process descriptions and maps and the completed CRVS-SAR tool

· proposed improvement redesigns, which should include the desired process descriptions and maps, and a summary of suggested improvements for the system's enablers

The core team should draft the report with input from the senior CRVS advisor and present the report to the Technical Working Group (TWG) for vetting. After vetting it, the TWG should present the report to stakeholders at a workshop to obtain their views. The report should be modified as needed based on key stakeholder input, then finalized. The core team should submit the finalized report to the TWG for final approval, and the approved report should go to the High-level Interagency CRVS Coordination Committee for endorsement.

4. Stage 2: Development of the strategic action plan

Stage 2 of the framework helps guide the development of a strategic action plan to improve or strengthen CRVS systems based on the findings of Stage 1. Crafting a strategy depends on in-depth knowledge and skills in a variety of areas. It is important that selecting a strategy is done systematically to ensure that all issues impacting the future state and function of the CRVS system are carefully scrutinized. During Stage 2, the core team should seek planning and management advice to develop the strategic action plan if necessary.

There are several planning and management approaches used by the public and private sectors. For the purpose of this guidebook, the Balanced Score-card (BSC) was adapted as many government ministries, departments, and agencies use it. The BSC is a tool that helps planners identify what needs to change and how it should be implemented and measured based on inputs from stakeholders, both service providers, and users.

4.1 Developing the strategic plan

Developing a strategic plan requires several steps. **Table 15** shows the steps, objectives, and activities involved. Planners should take the following important considerations into account when developing a national CRVS strategic plan:

· Buy-in for the strategic plan and alignment of the plan with the country's overall development goals and national development plan are important to ensure financing of the improvements

· Terminologies and concepts should be aligned with government budgetary approval requirements to facilitate the financing of improvement efforts as part of government activities

· If a prior CRVS strategic plan exists, terminologies and concepts should be consistent, and any differences should be explained for consistency.

TABLE 15:
Main steps required in developing a strategic plan.

Main steps	Objective(s)	High-level activities
Setting strategic outcomes and goals for the CRVS system	To define clearly the highest level of goals and outcomes that will drive the strategy	Step 1: Define strategic outcomes Step 2: Develop long-term strategic goals
Strategy formulation	To define strategic intent on where and how the organization will respond	Step 1: Develop strategic objectives Step 2: Develop sub-objectives Step 3: Compile a strategy map Step 4: Define the strategic intent Step 5: Identify critical success factors Step 6: Identify strategic risks Step 7: Identify or develop strategic interventions

4.1.1 Setting strategic outcomes and goals for the CRVS system

Strategic outcomes, goals, and objectives drive a strategy. These strategic outcomes and goals form part of the strategy analysis phase. Strategic objectives form part of the strategy formulation phase, which comes in the next section.

As the strategy is developed, modifications may need to be made to the desired business process descriptions and maps. The core team should allow for such flexibility and ensure that process descriptions and maps are updated as needed.

This subphase includes two steps:

· Define strategic outcomes
· Develop long-term strategic goals

Step 1: Define strategic outcomes

Strategy formulation should be guided by a set of clearly defined outcomes from the CRVS system. An outcome is a change in the status of a beneficiary that results, wholly or in part, from a strategy, plan, or program. An example of an outcome and target of the CRVS system may be stated as "Distance to registration service reduced to less than five kilometers for all people."

An outcome may be positive (desired or intended) or negative (unintended or unexpected). To minimize the risk of negative outcomes, strategic outcomes should be carefully defined before the strategy is formulated. Progress toward reaching the strategic outcome should be measured using a limited set of outcomes or impact indicators.

Using outcomes to drive strategy means planning backward from the desired outcome. This underscores the strategic importance of defining the desired outcomes from the CRVS system before embarking on strategy development in the strategic planning process.

Step 2: Develop long-term strategic goals

Goals and objectives tend to have interchangeable meanings, depending on context. It is therefore very important for stakeholders to agree to a specific definition for each. What is important is the consistency of definitions and applications.

We define a strategic goal as the desired result the proposed CRVS system aims to achieve from a strategic set of issues or from developing a strategy for the system. The goal is where we want the system to be in the long term. Often a strategic goal is so general that it is expressed in nontechnical, qualitative terms rather than in quantitative terms. For example, a goal for the CRVS system might be "To achieve 80% completion rate of registration of births, deaths, marriages, and divorces within three years." The management team should define the gap — the difference between what you wish for and a realistic possibility. Filling the gap becomes the strategic goal.

4.1.2 Strategy formulation

This step involves developing the strategic plan. It defines the direction an organization needs to follow to achieve its missions and vision. A graphical presentation of strategy formulation is given in the form of a strategy map based on the Balanced Scorecard approach in **Annex L**.

This subphase includes seven steps (see **Table 15**).

Step 1: Develop strategic objectives

All activities in the CRVS system should be linked to a strategic objective, whether they are new activities, improvement initiatives, or maintaining existing processes. Strategic objectives direct the activities of the organization or system and form the foundation on which decisions on actions are made. They provide direction for everyone in the organization and motivation for individuals to achieve the objectives. Good objectives also help delegate authority effectively.

The formulation of strategic objectives should

· provide direction to achieve the mission

· be based on the results of the prioritization and ranking of potential redesign ideas discussed in Section 3.10.2 of Stage 1

· account for the values held by management (i.e. what does leadership want to see more of? Less of?)

· be specific, measurable, achievable, relevant, and time-bound (SMART)

Two examples of strategic objectives for the CRVS system are "To achieve 80 percent registration of deaths in five years" or "To complete system integration in three years."

Step 2: Develop sub-objectives

The development of sub-objectives is critical to realizing the strategic objectives. The summarized information from the assessment phase, captured in Stage 1, should serve as key inputs for developing the sub-objectives. However, the sub-objectives need to be more specific and need to cover all areas of the system. Sub-objectives also need to be SMART.

Step 3: Compile a strategy map

The strategy map is a dynamic visual tool that describes and communicates the strategy (this is distinctly different from the business process maps used in Stage 1). An example of a strategy map is attached as **Annex L**. It ensures that the strategic objectives are balanced, covering all aspects of the CRVS system. As the strategy map shows cause-and-effect relationships, it allows organizations to:

- clarify strategies

- identify key internal processes that drive strategic success

- align investments in people, technology, and organizational capital for the greatest impact

- expose gaps in strategies and take early corrective action

- It is proposed that the strategy map be based on four perspectives:

- Social impact

- Stakeholder

- Business process

- Investment in learning and growth[20]

Strategy development is an iterative process. Following the compilation of this strategy map, the strategic objectives and sub-objectives should be revisited.

Step 4: Define the strategic intent

Strategic intent describes where you want to be and how you are going to get there. This section describes the strategic change required over a period of time. Strategic intent envisions a desired leadership position and establishes criteria the organization will use to chart its progress. It is a high-level description and statement of design for each strategic objective of how stakeholders will achieve the desired future stated in present terms.

Each strategic objective should outline the strategic intent in the short, medium, and long term by describing the desired end state and giving guidance on how to get there. Expression of strategic intent helps individuals and organizations share the common future goal through time and space. Strategic intent statements provide the following:

- Sense of direction: This includes an understanding of the long-term position that a system aims to build over the next decade. It is a view of the future that conveys a unifying sense of direction.

- Sense of discovery: Strategic intent should retain a sense of discovery and excitement about the future.

- Motivation: Strategic intent should be perceived as inherently worthwhile by all stakeholders.

Step 5: Identify critical success factors

Critical success factors are the essential areas of activity that must be performed well if you are to achieve the project's mission, objectives, or goals. By

20 Kaplan, R.S. and Norton, D.P.. 2004. Strategy Maps: Converting Intangible Assets into Tangible Outcomes. Harvard Business School Press.

identifying your success factors, you can create a common point of reference to help you direct and measure success. Critical success factors help ensure that the improvement effort remains well-focused, avoiding wasted effort and resources on less important areas. Making the factors explicit and communicating them with everyone involved helps keep the improvement effort on track toward common aims and goals.

When identifying critical success factors, start with the mission, strategic goals, and strategic objectives (see also section 3.2 of Stage 1). Ask, "At what area or activity do we need to excel in ensuring that this goal is achieved successfully?" These areas may relate to the organization, external environment, or internal environment. Consider what is essential and select the most critical areas or activities listed to ensure focused attention. Once your critical success factors have been identified, it may be necessary to revisit your strategic goals and objectives.

Step 6: Identify strategic risks

Strategies are hypotheses based upon assumptions. Every single element of strategy can be influenced to some extent by uncertainty. While the concepts of risk and uncertainty commonly conjure images of what could go wrong, the idea of managing strategic risk includes consideration of seizing opportunities as they arise.

Risks can be externally based (for example, what happens if disaster strikes the community?) or internal (for example, what happens if a key statistician suddenly retires or a critical piece of technology fails?). These occurrences are usually unexpected and can become a major distraction that prevents the entire organization from executing the planned strategies.

Organizations that are faced realized risks may have to abandon strategies; ideally, they adapt and change the course of the originally developed strategies. The worst-case scenario occurs when organizations forge ahead with strategies that are no longer appropriate simply because they appear on a strategic plan.

So how to address these strategic risks and keep the organization on track? The answer is twofold. First, identifying potential strategic risks and increasing organizational knowledge of these risks can reduce uncertainty. Second, performance improvement tools can be adapted to help realign strategies.

What are strategic risks, and where do you look for them? What risks threaten the achievement of your vision? Strategic risks take a variety of forms. The first step in strategy formulation is to identify risks that will have the biggest impact and are most likely to occur. Compare these risks with each strategic objective to ensure that you have not missed a major area of concern. The second step is to prioritize the strategic risks according to those two criteria. Finally, develop mitigation strategies for each major risk and identify the organization or stakeholder to be tasked with driving critical activities related to the strategic risk mitigation plan, for which they will be accountable.

Step 7: Identify or develop strategic interventions

This step involves identifying or developing strategic interventions in response to identified and prioritized issues and weaknesses.

To determine whether the intervention strategy is feasible, the following questions should be answered:

Economics: Is the strategy financially feasible? Does it make economic sense to apply this strategy?

Acceptability: Will the stakeholders and the community accept this strategy?

Resources: Is funding likely to be available to apply this strategy? Are organizations able to mobilize the necessary resources?

Legality: Do present laws and regulations allow the strategy to be implemented? What in the legal and regulatory framework needs to change for it to be implemented?

Barriers: What are the potential barriers to implementation and success? What are the suggestions to overcome the barriers?

The following template should be completed to analyze intervention strategies. A template for preparing a strategic plan report is given in **Annex M**.

TABLE 16:
Issues, strategy, and intervention template.

Issue to be addressed	Strategy	Intervention	Economics	Acceptability	Resources	Legality	Barriers	Suggestions for overcoming barriers

4.2 Developing the action plan

Developing an action plan helps translate the strategic plan and priority issues into a series of activities aimed at the implementation of system improvements. An action plan for CRVS systems improvement describes the comprehensive set of activities, required resources, and phases for implementing the national CRVS strategic plan. The development of the action plan should adopt a multi-stakeholder approach. This will ensure the commitment of participating actors and will greatly improve chances that action plans will be realistic and implementable.

The action plan should be developed iteratively, similar to development of the strategic plan. An initial plan is drafted based on the CRVS strategic plan. It is then refined based on a country's constraints (such as funding) and environment. This approach ensures that the plan is grounded in the current context but is not overly constrained. It also allows for the identification of activities that could be implemented if additional resources become available. If a previous action plan exists, the core team should review it before work starts. The tasks, responsible entities (actors), and deliverables for the development

of a CRVS action plan are shown in **Table 17**. As the action plan is developed and specific activities to implement that plan are elaborated, constraints or other observations may require the adjustment of the desired business process descriptions and maps. Detailing the activities may also indicate a need to revise the strategy. The core team should allow for such flexibility and make necessary changes to the strategy as well as the desired business process description and map.

TABLE 17:
Example tasks to develop a CRVS systems improvement action plan.

Task	Actors	Deliverables
Define the main action areas to deliver the CRVS strategic plan	TWG, core team, and senior CRVS advisor	Action areas and action plan working groups
Assign the outputs to each action area	TWG, core team, and senior CRVS advisor	Defined outputs for each action area
Develop the action plan for each action area	TWG, core team, and senior CRVS advisor	Individual action plans for action areas
Consolidate the individual action plan to a national CRVS action plan	TWG, core team, and senior CRVS advisor	Draft CRVS action plan
Conduct a workshop to validate the national action plan	TWG, core team, senior CRVS advisor, and stakeholders	CRVS action plan

4.2.1 Define the main action areas to deliver the CRVS strategic plan

Preparation of the action plan requires a good understanding of the report from Stage 1, the CRVS strategic plan, and priorities based on the country profile. In a meeting, the TWG, core team, and senior CRVS advisor should review the systems improvement strategic plan and the identified implementation priorities (see Stage 1). **Table 18** provides a simplified example of how to build an implementation action plan.

TABLE 18:
Sample table that shows interventions or activities to achieve strategic objectives and outcomes.

Activities	Organization(s) responsible	Completion date	Cost	Source of funding	Actors	Coordination mechanism	Progress indicator
Strategic outcome: Establish a universal and responsive information and communications technology (ICT)-based CRVS system							
Strategic objective 1: Review and design the CRVS digital system by [month/year]							
1.1. Study the desired CRVS process maps to identify key areas that require ICT intervention	National organizations responsible for CRVS and other key stakeholders	[month/year]					Desired CRVS process areas that require ICT intervention established? (Y/N)
1.2. Define the CRVS information technology requirements in light of the desired CRVS processes	National organizations responsible for CRVS and other key stakeholders	[month/year]					CRVS information technology requirements established and approved by TWG
1.3. Define the CRVS systems requirements in light of the desired CRVS processes	National organizations responsible for CRVS and other key stakeholders	[month/year]					CRVS functional and nonfunctional requirements established and approved by TWG
1.4. Conduct a comprehensive and consultative analysis of potential gaps in the existing digital systems[21]	National organizations responsible for CRVS and other key stakeholders	[month/year]					Potential gaps in the existing digital systems for CRVS established
1.5. Design the system architecture for the CRVS digital system[22]	National organizations responsible for CRVS and other key stakeholders	[month/year]					System architecture for CRVS digital system established and approved by TWG

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21 For example, using the CRVS Digitization Guidebook: crvs-dgb.org/en/
22 For example, using the CRVS Digitization Guidebook: crvs-dgb.org/en/

4.2.2 Develop an action plan for identified action areas

In this step, the working group should develop an action plan for each priority identified in the previous step. **Table 19** outlines the elements that should be included in every action plan so it can serve as a guiding tool for coordinating planning activities, implementation, and evaluation and monitoring.

TABLE 19:
Example of strategic objective, action areas, and outputs.

Strategic objective: Establish a universal and responsive information and communications technology (ICT)-based CRVS system	
Action areas	Outputs
Policy and regulatory framework	*Revised legal and regulatory framework that supports ICT-based CRVS systems*
Human resources	*Required number of CRVS officers trained to use the ICT-based CRVS systems*
Management and coordination	*Well-structured mechanism for organization and coordination involving key stakeholderswithin the CRVS systems*
Information technologies	*Procurement of hardware and software for ICT-based CRVS system*
CRVS processes	*ICT-based CRVS system that implements the desired CRVS business processes*

Step 1: Identify activities required to deliver the output

Activities needed to deliver the required output are identified. Activities are the basis of an action plan and should be defined as to their scope, timing, and dependencies. **Table 20** presents examples of activities required to deliver a digital CRVS system. It also presents examples of activities to develop the legal and regulatory framework needed to implement the improved CRVS processes and realize the desired CRVS systems performance.

TABLE 20:
Action plan review documentation template.

Outputs and activities
Action Area 1: Information technology for CRVS
Output 1: CRVS digital system is developed
Activity 1.1: Conduct inventory of existing digital systems for CRVS
Action Area 2: Policy and regulatory framework for CRVS
Output 1: Revised and amended legal and regulatory framework
Activity 1.2: Use a structured tool to analyze the CRVS legal and regulatory framework[23]

23 For example, using advocacyincubator.org/ghai-advocacy-tools/legal-and-regulatory-review-toolkit-for-crvsid/

Step 2: Estimate the funding required to deliver the activities

Implementation of the action plan requires both financial and nonfinancial resources. In this task, the working group should create an estimate of costs for each specific activity. The working group should also identify nonfinancial resources such as skilled workers or specialized equipment. This step should not be focused on performing detailed financial costing, but rather on estimating the amount of funding required.

4.2.3 Validate the CRVS action plan

Validation of the action plan is a vital component of developing the CRVS action plan and implementing the strategic action plan. It is an important mechanism to ensure that stakeholders are informed of the plan. It also provides a way to verify the completeness and correctness of the plan through discussion. The objectives of this workshop are to:

· share the CRVS action plan with stakeholders

· get feedback from stakeholders

· discuss and build consensus on the institutional arrangements for implementing the action plan

· obtain preliminary commitment to support implementing the action plan

· agree on further steps to implement the action plan

The workshop should be facilitated by the core group and other members of the TWG. The workshop participants should include the TWG members, representatives of relevant ministries or departments, representatives of development agencies and donor organizations, active non-governmental and civil society organizations, and selected members from academia.

Step 1: Presentation of the national CRVS action plan

The first step of the workshop is to introduce the CRVS strategy map, to provide participants with an opportunity to reflect on the overall strategy, the agreed-upon direction, and the mission and vision to which the CRVS action plan should be aligned. The CRVS strategic plan should then be presented before the presentation of the action plan. The presentation should include the methodology and development process followed as well as an explanation of the action areas, outputs, and associated activities, including how they were derived from the strategic plan.

Step 2: Review and agree on the action areas and associated outputs

Workshop participants should discuss and agree on the action areas and associated outputs before breaking out into groups for further review of the action plan for each action area. Participants should be given the opportunity to discuss and agree on the initial action areas and associated outputs, and they may delete, add, or amend them.

Step 3: Review and validate the CRVS action plan

Workshop participants should review each action area to determine whether it is correct and complete. This should be done in a breakout session in which the approved action area should be reviewed by stakeholders divided into teams that correspond to their areas of expertise. TWG members should also participate in the breakout session.

The group should walk through and discuss all the activities of each output to identify missing, unnecessary, or incorrect activities, as well as activities that require amendment. At the end of the session, each team should present to the workshop participants in a plenary session for final validation. During the plenary session, the TWG and the core team should respond to each comment and document the response.

Step 4: Costing of the CRVS Action plan

Following the validation workshop, the core team should finalize the CRVS action plan and submit it to the TWG, to engage appropriate agencies within and outside the government to cost the plan. The costing should begin at the activity level and aggregated bottom-up at all government planning and budgeting levels.

Step 5: Approval of the CRVS Action Plan

The TWG should submit the cost of CRVS action plan to the High-Level Interagency CRVS Coordination Committee for approval, along with an executive summary of the plan and a brief account of the AAR exercise's main findings. After reviewing these outcomes, the high-level committee should decide resource allocation and engage high Government authority (e.g., the minister responsible for CRVS) for final approval.

5. Stage 3: Implementation, monitoring, and evaluation

Stage 3 of the framework outlines the process of implementing the national CRVS strategic action plan, monitoring and evaluating the performance of the CRVS system, and monitoring and evaluating the progress of implementing the action plan.

Some system improvements that are particularly innovative or represent a dramatic departure from current practice should be implemented to demonstrate feasibility and deliverability at initial scale. This will allow learning about feasibility, technical, and implementation issues related to the new process that may need refinement. Once issues have been identified and refinements made, the national scale-up can begin.

Monitoring and evaluating the CRVS system's performance should be based on key performance indicators developed in Stage 1 and can be adjusted based on possible changes in context. This monitoring and evaluation should be a continuous process throughout the improvement of the CRVS system. **Annex N** provides an overview of Stage 3 activities and related deliverables.

5.1 Implementing the action plan

Implementing the action plan involves the following activities:

1. Mobilize implementation resources

2. Review and refine the CRVS action plan

3. Determine organizational structure and process for implementation, monitoring, and evaluation

4. Develop change management and implementation plan

The action plan should result in system, changes that enable new CRVS processes to be implemented effectively.

5.1.1. Mobilize implementation resources

Availability of resources to support the implementation of the national CRVS action plan is critical to the improvement effort. The resource mobilization strategy outlines the approach for soliciting resources from partners who share the same CRVS improvement goals. In this context, resources mean financial resources, human resources, and goods and services. The TWG, with the core group and the support of the senior CRVS advisor, should formulate the resource mobilization strategy. It should be the responsibility of the national CRVS committee or the TWG to identify and secure resources needed to implement the action plan.

The results of resource mobilization will directly affect the scope and scale of the improvement effort. Before implementation, objectives, targets, and activities should be reconciled with available human capacity, time, and money. This may mean adjusting the desired process description and maps.

A resource mobilization strategy will provide an essential roadmap detailing how resources might be leveraged to meet the resource requirements. The core team should ensure that key stakeholders are engaged throughout the process and that they are involved in all steps of strategy development. **Figure 7** presents the steps for developing the resource mobilization strategy.

FIGURE 7:
Resource mobilization strategy development steps.

Step 1	· Review the resources requirement as detailed in the CRVS strategic action plan
Step 2	· Analyze the external and internal resource environment
Step 3	· Establish the goals and intended outcomes of the resource mobilization strategy
Step 4	· Identify potential resource partners
Step 5	· Develop a resource mobilization action plan
Step 6	· Develop a plan to monitor and evaluate the progress of implementing the resource mobilization strategy

5.1.2 Review and refine the CRVS action plan

In Stages 1 and 2, the action plan for each action area was created with a cost estimate and timeline. Once resources are identified, the action plan should be reviewed and refined. If resource targets are not met, the scope, scale, and operational targets will need to be revisited. The TWG, together with the relevant stakeholders, should review and make any necessary changes to the action plan to ensure that:

· responsible individuals or organizations are identified as leads

· appropriate personnel and organizations are included for each action area and activities

· realistic timelines and SMART objectives are set for each action area and for activities

· necessary and available resources have been identified

During the review process, the TWG and leaders of the implementation teams should work together to identify opportunities for coordinating and combining resources. The prioritization exercise in Stage 1 can be revisited to guide refinement of the action plan for implementation. This adjustment to the strategic action plan may also require changes to the desired business process description and maps.

5.1.3 Determine organizational structure and process for implementation, monitoring, and evaluation

One entity should be identified as responsible for ensuring that the overall implementation of the national CRVS action plan stays on track. In this task, the TWG should determine the structure and process for implementing, monitoring, evaluating, and communicating about the improvement efforts.

Implementation teams should report to the TWG, which should provide oversight of the implementation, monitoring and evaluation, and communication of the work. The TWG should ideally perform three functions: (i) implementation oversight, (ii) monitoring and evaluation, and (iii) change management and communication.

The TWG should be responsible for:

- liaising with the individuals or organizations leading the implementation of each action area to make sure activities are coordinated with activities in other action areas, that activities stay on track, and that barriers are addressed
- formulating the monitoring and evaluation plan while insuring the availability of appropriate tools to enable this process

5.1.4 Develop change management and communication plan

Changes of varying type and scope will be needed for the improved CRVS processes to function. The steps below outline the development of a change management plan.

Step 1: Assign the responsibility for change management to a person or team

This individual or team should ensure that the changes brought by the improvement initiatives are adequately managed and communicated with all stakeholders.

Step 2: Identify the expected type and scope of change to create a change management plan

A change management plan consists of articulating how the team should do the following:

- **Create awareness** among primary stakeholders (those for whom business process will be changing);
- **Address resistance** to change and **create desire** for the change. Find out who feels they might be losing out because of the proposed change and reassure them of their value and role in the new process. Create desire for the change by explaining how it will lead to improvements that move the CRVS system closer to its goals;
- **Create the ability to implement** change by building the necessary skills and ensuring that supervision and reinforcement are planned for and available; and
- **Reinforce** skills and new business processes over time.

Step 3: Identify implementation obstacles

The communication subcommittee and leaders of the implementation team of each action area should identify and document possible obstacles to implementing the redesigned processes and other capabilities. What key assumptions and dependencies must hold for the change to succeed?

Step 4: Implement the change management plan

In this step, the team should ensure that the scope of change and the change management plan are understood and implemented in collaboration with stakeholders. The team should communicate with stakeholders about when the changes will be put into effect and what transitional arrangements will be made to address problems during the transition to the new CRVS process.

5.2 Monitoring and evaluation plan

A country should have a well-established monitoring and evaluation (M&E) plan. M&E results guide implementation and provide an important feedback loop for continuous improvement.

A clear distinction should be made in the M&E plan's between: (i) monitoring and evaluating the progress of implementing the CRVS strategic action plan, and (ii) monitoring and evaluating the performance of the CRVS systems.

The following tasks are performed in developing an M&E plan:

1. Determine the KPIs and outcome indicators to guide M&E;
2. Set the baseline and target measures for each indicator; and
3. Describe the governance and processes through which the national monitoring and evaluation will be performed.

M&E should be an integral part of the CRVS continuous improvement.

5.2.1. Monitoring and evaluation of CRVS system performance

Data collection tools, approaches, and visualizations are part of a robust monitoring framework. These can include software, databases, web-based dashboards, country-balanced scorecards, and others.

During Stage 1, key performance indicators for measuring the performance of CRVS systems were identified in the CRVS-SAR tool. The tool also defines the baseline and targets for the identified indicator and includes sources and methods for collecting appropriate data for monitoring and evaluating the CRVS system's performance. Together, these materials form the M&E plan to monitor and evaluate the results of implementing the strategic action plan (i.e., CRVS system performance). Through the evaluation of the CRVS system using the KPIs defined in Stage 1 in the course of implementing the strategic action plan, this provides the basis for a feedback loop that can inform current and future improvement efforts.

The performance of the improved process should be continually monitored and evaluated to determine whether the desired CRVS processes are delivering the desired results. This evaluation should also provide insights into further issues to be addressed through continuous improvement. In the case of detected underperformance, the CRVS processes need to be further analyzed to identify issues, bottlenecks, and root causes before taking further action.

5.2.2. Monitoring and evaluation of the CRVS strategic action plan

The monitoring and evaluation (M&E) plan will track and assess the progress and desired results of the interventions according to the objectives defined in the strategic action plan. **Table 21** presents the template of an M&E plan to monitor and evaluate the progress of implementing the strategic action plan.

TABLE 21:
Template for monitoring and evaluating the progress of implementing the action plan

Action Plan			Measurement and Evaluation Efforts			
Action Steps (Activities)	Organization Responsible	Completion Date	Indicators	Data Collection Sources	Data Collection Method	Data Collection Timing
Example Goal: Regulatory and governance enhanced for CRVS						
Example Objective 1: Review and design the CRVS digital system by September 2025						
Example activity 1.1: Develop inventory of existing digital systems for CRVS that require legal support	*National CRVS organization*	*[month/year]*	*An inventory of all existing digital systems for CRVS developed? (Y/N)*	*Regular report of IT expert to TWG*	*Analysis of report of IT expert*	*[month / year]*

Definitions of key concepts and terms[24]

As-is business process — The current state of a business process.

Assessment and analysis of CRVS systems — A holistic, standards-based review of the performance of CRVS systems, subsystems, and their associated organizational capabilities against performance standards. This review helps identify key performance issues that need to be addressed to improve the performance of CRVS systems toward their fundamental goal of registering every vital event within a given geographical area (country) and providing a source of vital statistics. The outcome is a report that is used as a key input for formulating the CRVS strategic plan.

Baseline performance — The starting point used for comparisons.

Business process — A structured set of activities that takes an input and transforms it into an output — a more valuable and effective service or product — for a particular client or clients. In the context of this framework, the term "business process" refers to a chain of events, activities, and decisions associated with the civil registration of vital events[25] and/or the production of vital statistics.

Business process improvement — An approach designed to help organizations analyze and redesign their existing (as-is) business processes to accomplish significant improvements and implement desired processes.

Business process map — A visualization of a business process that takes into account roles and responsibilities.[26]

Clients — Members of the public who are served by the civil registration system or who seek civil registration services, namely, for registration and certification of vital events.

CRVS stakeholders — All entities at all levels that affect or are affected by the CRVS system. There are various types of CRVS stakeholders — government institutions and their staff who have the functional responsibility to implement aspects of the CRVS systems; government institutions and their staff who need the services of the CRVS system as input to their own operations; development partners and other institutions that provide technical and financial assistance for CRVS systems; individuals and families (clients) who experience the vital events and want them registered and certified; and community members who are required to report on events within their communities (informants).

CRVS strategic action plan — A document used to communicate the vision, mission, goals, and objectives of the national CRVS system and the actions needed to achieve those goals. Specifically, the action plan lists steps that should be taken to achieve the intended vision, mission, goals, and objectives of the national CRVS system. The purpose of an action plan is to clarify what

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24 Note that definitions are provided in the context of and applicable for the application of the CRVS Systems Improvement Framework and may not be generalizable.

25 Specifically, the CRVS Systems Improvement Framework focuses on the business process for the timely civil registration of births and deaths (with cause of death) and the production of vital statistics from civil registration records. The framework can easily be modified to cover other vital events or late or delayed civil registration of vital events.

26 Definition adapted from smartdraw.com/business-process-mapping/.

resources are required to reach the goal, formulate a timeline for when specific tasks need to be completed, and determine what resources are required.

CRVS system analysis and redesign (CRVS-SAR) tool — The tool designed to support countries in systematically collating and analyzing the performance of the CRVS business processes against a list of agreed-upon key performance indicators. These indicators are also used to monitor system improvements following the redesign.

Desired business process — The desired design of a business processes or subprocesses with required organizational capabilities.

Desired target — The desired level of performance for a specific action, decision, or process as defined by the performance objectives, vision, mission, legislation, policies, or organizational culture.

Key performance indicator (KPI) — A key measure that enables evaluation of performance in terms of progress toward a specific defined objective. Performance indicators and targets (see "Desired target" above) are mechanisms to operationalize objectives.

Organizational capabilities — The policies, laws, and regulations; management and coordination; human resources; physical infrastructure; information technologies to support a country's CRVS functions and processes to achieve the desired performance.

Performance issue — A failure to meet the defined outcome. Performance issues are based on reasonable expectations of the results of a particular action, decision, or process as defined by the performance objectives, vision, mission, legislation, policies, or organizational culture.

Policy, legal, and regulatory frameworks — A set of constitutional, legislative, regulatory, jurisprudential, and managerial rules that together establish the CRVS system and thereby the rights of individuals to have their vital events registered and that guide how systems should operate to align with defined goals and objectives.

Process actors — All individuals or organizations that perform a specific activity in the CRVS process, or that interact with CRVS processes.

Process-centric approach — A holistic approach to assess the adequacy, efficacy, and appropriateness of business processes in order to assess the performance of a system overall.

Process flow — A description of key steps of a particular process from beginning to end.

Process input — A set of requirements and/or actions that trigger the onset of a particular process.

Process output — The result that a particular process is designed to achieve.

Process owner — The individual or entity responsible for managing and overseeing the objectives and performance of a process.

Process purpose — The goal or output that a particular process is designed to achieve.

Redesign of CRVS systems — Making changes to the structure and functions of the CRVS system or processes with the goal of improving their performance

so that they serve their intended purpose in a better way. See also Redesign proposals.

Redesign proposals — Suggestions for making changes to the structure and functions of a system or process to better serve the purpose of the original design, or to serve purposes different from those set forth in the original design.

Registration Completeness — The proportion of vital events that have occurred to members of the population of a particular area within a specified period that have been registered in the system.[27]

Root cause — The initiating cause of a condition or causal chain that leads to an outcome of interest. It is the earliest, most basic, or deepest cause for a given behavior. The manifest signs by which observers can see an error. Those signs can be widespread, infinite, and convoluted, whereas the root cause leading to them is often a lot simpler.

Systems thinking — A holistic approach to analysis that focuses on the way a system's constituent parts interrelate, and how systems work over time and within the context of larger systems. According to systems thinking, system behavior results from the effects of reinforcing and balancing processes.

Task teams (TT) — A small group of people that brings together – into thematic groups – a specific set of skills to accomplish a short-term task. In this context, task teams are thematic groups of six to eight technical staff drawn from various CRVS stakeholder ministries or agencies that are charged with the responsibility of undertaking the field survey and associated tasks.

Timeliness — Timeliness in registration means that a vital event has been reported for registration within the legally stipulated time allowance. In register-based vital statistics, it means that for every timely registered event, a statistical report form has been forwarded to the agency responsible for vital statistics within the fixed time schedule established by the vital statistics program. It also implies that the production, publication, and dissemination of the vital statistics have been carried out promptly enough to ensure that users' needs are served.[28]

Trigger event — An action that must occur to initiate a process.

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27   United Nations. 2014. Principles and Recommendations for a Vital Statistics System. Paragraph 576.
28   United Nations. 2014. Principles and Recommendations for a Vital Statistics System. Paragraph 576.

Sample terms of reference for the Technical Working Group

Background of the CRVS system in the country: In two or three paragraphs, provide background on the local CRVS system.

Proposed terms of reference

1. Review and discuss the current CRVS systems in the country to identify gaps and weaknesses.
2. Develop plans for resource mobilization (financial, equipment) to implement the CRVS Systems Improvement Framework.
3. Develop and submit the budget and action plan for conducting the CRVS Systems Improvement Framework to the High-Level Interagency CRVS Coordination Committee.
4. Provide policy guidance and direction for the CRVS system.
5. Identify and nominate staff from their respective organizations who will form the Core Team and other teams to be formed at various stages of the improvement initiative.
6. Validate the CRVS systems analysis and redesign report and strategic plan prepared by the core team with guidance from experts.
7. Develop policy direction and guidance toward implementing the complete and comprehensive CRVS system in a sustainable way, as stipulated in the strategic plan.
8. Put plans in place for the continuous and sustainable assessment of the country's CRVS system.
9. Propose an implementation plan for the country's comprehensive CRVS system.
10. Ensure that monitoring and evaluation frameworks for the country's CRVS system are in place.

Membership: Members of the TWG are expected to be senior management and technical staff from key ministries, departments, and agencies, including UN agencies, international nongovernmental organizations, and civil society organizations. The chair is usually from the ministry responsible for the civil registration agency.

Frequency of meeting: It is important that the TWG frequently meet — for example, once a month.

Annex A: Sample terms of reference for the High-Level Interagency CRVS Coordination Committee and the Technical Working Group

Sample terms of reference for the High-Level Interagency CRVS Coordination Committee

Background of the CRVS system in the country: In two or three paragraphs, provide background on the local CRVS system and why it needs to be improved.

Proposed terms of reference

1. Review and discuss the current CRVS systems in the country to identify what needs to change and the type of systems and any improvement.
2. Approve plans for resource mobilization (financial, equipment) to implement the national CRVS improvement program.
3. Provide policy guidance and direction for the CRVS system.
4. Nominate staff from their respective organizations who will form the Technical Working Group (TWG) and approve their terms of reference.
5. Review budget and assessment plans as developed by the TWG and approve them.
6. Receive periodic reports and recommendations from the TWG for action.
7. Ensure continuous and sustainable improvement of the country's CRVS system.

Membership: Members of the High-Level Interagency CRVS Coordination Committee are expected to be high-ranking executives in their ministries and departments. In most countries, ministries represented on the committee would be the ministry responsible for civil registration (chair), Ministry of Planning, Ministry of Health, and Ministry of Local Government. The membership could vary depending on the specifics of the country. The chair is usually the ministry responsible for civil registration. The registrar commonly serves as the rapporteur of the committee.

Frequency of meeting: The committee needs to meet a few times a year, depending on the country's situation — most likely two or three times a year.

Annex B: Roadmap for conducting the assessment, analysis, and redesign Stage and for developing a strategic action plan

Workdays indicated in the roadmap are indicative and should be adapted depending on local settings.

Acronyms and short terms used in the roadmap:

AAR — Assessment, analysis, and redesign

BPM — Business process mapping

CRVS-SAR tool — CRVS systems analysis and redesign tool

FT — Field team

RT — Redesign team

S&AP — Strategic action plan

SA — Senior CRVS advisor

TO — CRVS technical officer

TT — Task team

TWG — Technical Working Group

	Activities	Responsible agency(ies)/ persons	Workdays (start day to end day)	Remarks
Prerequisite for the CRVS Systems Improvement Framework: The government has decided to strengthen the CRVS system by improving selected business processes and, as applicable, developing or updating the S&AP. The lead agency for CRVS has been identified; the TWG with membership of all stakeholders has been established or activated; and the core team has been constituted with the assigned responsibility to develop or update an S&AP, as applicable. A draft roadmap of activities has been created and the resources required for the exercise have been secured. The SA and TO have been identified and hired, as applicable, and are in position. Note: The estimated workdays indicated below are based on the experience of countries that have done the comprehensive assessments. They do not include weekends and holidays. The days required for the listed tasks are indicative and should be revised to local needs and settings. The working days in the roadmap indicate start and end days as in a few places there are overlapping activities.				
A	**Setting the direction for the CRVS system**			
A.1	Preparation	SA, TO	1–7	Some key materials and documents related to the CRVS system need to be sent to the SA to get acquainted with the system, as applicable
A.2	SA arrives in the country, as applicable, and meets the core team and TO	Core team, TO	8	Meeting on the roadmap; roadmap is revised as needed

	Activities	**Responsible agency(ies)/ persons**	**Workdays (start day to end day)**	**Remarks**
A.3	SA field visit and meetings with key stakeholders	Core team	9–12	SA becomes familiar with the actual processes of registration and certification and other activities, including the collection and compilation of vital statistics and causes of death, as applicable SA meets with key stakeholders and prepares the ground for implementing the framework
A.4	Orientation training and envisioning	SA, core team, TO (and TWG for envisioning)	13–14	Core team is oriented on the principles, concepts, and methods of CRVS The framework, including the process of AAR and developing and implementing the S&AP, is fully explained, along with the roles and responsibilities of the core team and other teams at each stage of the process First draft of vision and mission statements for CRVS systems are developed, or current versions are reviewed by the core team and TO with support from SA
B	**Documenting current CRVS business processes**			
B.1	Identifying business processes to improve and develop process descriptions and process maps	Core team, SA, TO, with support of a business process documentation expert	15–19	Core team and TO identify all business processes in the CRVS system, select the processes to improve (will require input from the TWG and possibly the High-Level Interagency CRVS Coordination Committee), and develop initial process documentation for those processes
C	**Gathering performance information**			
C.1	Developing the KPIs	Core team, SA, TO	20–21	
C.2	Developing and filling in the CRVS-SAR tool and desk review (collect baseline information and identify possible performance issues)	Core team, TO	22–30	SA can be asked to join the exercise (possibly remotely)

	Activities	Responsible agency(ies)/ persons	Workdays (start day to end day)	Remarks
D	**Analysis**			
D.1	Preparing for desired process workshop	Core team, SA, TO	31	Agenda for the workshop is finalized Core team establishes the TT
D.2	Workshop on analysis of the as-is business processes · Reviewing and updating current CRVS process maps, updating CRVS-SAR template with baseline information and performance issues · Identifying and validating root causes through breakout sessions (fishbone exercise)	TWG, core team, SA, TO, TT leaders, planners, other stakeholders, business process documentation expert	32–35	Core team, SA, TO, and TT leaders can serve as resource persons
D.3	Conducting field assessment	FTs, supervised and supported by core team, TO	36-51	Field questionnaire and the filled-in CRVS-SAR tool are used to ascertain and validate the baseline, performance issues, and possible root causes
D.4	Preparing field report	Core team, TO, TT	52–56	FTs prepare reports based on field study and assessment and make notes on KPIs; this includes validated and corrected information on baseline, performance issues, and possible root causes
E	**Redesigning**			
E.1	RT meeting for redesigning: · identifying and proposing potential redesign ideas to create a better process · consolidating and prioritizing potential redesign ideas · creating desired process maps · testing proposed redesign ideas · examining implications of redesign on operational capabilities	Core team, SA, TO, leaders of TT, members from key government stakeholders in TWG	57–62	
F	Writing and approving the AAR report			

	Activities	Responsible agency(ies)/persons	Workdays (start day to end day)	Remarks
F.1	Preparing and finalizing the draft AAR report	TO, under the guidance of core team	63–70	Report may be sent to SA for review and comments
G	**Development of S&AP**			
G.1	Training on strategic planning for improvement of CRVS systems	SA, core team, TO, TT leaders	before 70	
G.2	Meeting of TT leaders, select members from TWG, core team, and a few planning officers to discuss prioritized recommendations and intervention	TT, SA, TO, TWG, planning experts from government	71–72	
G.3	Developing the S&AP	TO, planning officers, core team	72–81	SA provides support (as applicable remotely)
G.4	Validation workshop	TWG, TO, planning officers, budget experts, core team	82	
G.5	Finalizing of draft S&AP	TO, planning officers, budget experts, core team	83–87	
G.6	Approval of the S&AP	TWG	88-10	Following approval by TWG, the S&AP will need to be approved by the High-Level Interagency Coordination Committee and other components of government (for example, the cabinet); this work is not included in the roadmap and needs to be locally adapted

Annex C: Envisioning

To develop a vision statement, mission statement, and core values for the CRVS system, the core team can do an envisioning exercise. Specifically, the following steps can be used to develop the vision, mission, and values.

Step 1: Review or develop a vision statement for the CRVS system

A vision for the CRVS system defines the desired future state of the system and its products. It is a compelling and clear image and requires big-picture thinking.

The visioning exercise aims to:

· rally participants to see and own what they are working toward;

· inspire participants to develop and share creative ideas, however divergent;

· encourage teambuilding through debate on areas they agree or disagree on to build consensus;

· decide through discussion what the system will or will not do; and

· work together to establish a new organizational paradigm toward shared goals.

The vision should be aligned with the national development plan, if one exists. Ideally, the plan is a driver of the vision. The issue to address is what the system is intended to achieve.

Vision development should take into account budget implications, client base, staffing levels and other capacity issues, program domains, and impact on society, among other factors.

Vision statement: A vision statement should capture why the vision is needed, what its objective is, and who is being targeted by it. Each CRVS system should have a vision statement that is clear, straightforward, and concise. Ideally, it should be a one- or two-sentence description of what the current system should become as a result of the improvement initiative.

A vision statement should include the main goal of the system without detailing how to achieve the goal. It should consider the current state of the system and include a concept of the future directionof the system . It might include, among other items: meeting user needs, producing vital statistics of good quality, developing registration and statistical capacity, and coordinating the CRVS system.

Several country examples of vision statements are given below.

· Rwanda (2017): Make every life known and count.

· Nigeria (2017): An enlightened society where all births, deaths, stillbirths, marriages, and divorces are registered.

· Cameroon: La vision est celle d'un système ESEC, instrument performant d'identification de l'individu et des faits d'état civil le concernant, via un registre de population qui lui assure l'exercice de sa pleine citoyenneté, qui soit un outil de référence pour l'élaboration des politiques publiques, leur mise en œuvre et leur évaluation.

· Benin: Le Bénin a en 2025, un état civil moderne, fiable, et performant au service des populations, et contribuant à la bonne gouvernance, à la démocratie, à la sécurité et au développement.

- Madagascar: D'ici 2027, le système d'état civil permet à chaque citoyen de bénéficier de ses droits à l'identité, du respect de la confidentialité de ses données personnelles. Que le développement inclusif et durable du pays se fasse également à travers les bénéfices de l'amélioration du système d'état civil.
- Kiribati (2016): (To have, by 2020) - A CRVS system that is accessible to all, records all vital events; with honesty and integrity; to provide quality, complete, timely and accessible data; in order to establish and protect identity, support a safe, secure society; and provide data for government planning (and support good governance) – including strengthening health policy and services; for everyone.
- Afghanistan (2016): By 2024, all people in Afghanistan will benefit from universal and responsive CRVS systems that facilitate the realization of their rights and support good governance, health and development.
- Cambodia (2017): A mission-focused, service-oriented and modern area of public administration in Cambodia that manages data about population identity and vital events and produces reliable population and vital statistics.
- Philippines (2015): By 2024, all people in the Philippines will benefit from the universal and responsive CRVS systems, in accordance to the Asia-Pacific Shared Vision and Goals for CRVS.

Step 2: Review or develop a mission statement for the CRVS system

The mission is useful in guiding improvement efforts and should be included in the strategic action plan.

The mission summarizes an organization's or system's core business or purpose for existence for both internal and external stakeholders and the public. A mission for the CRVS system should define the fundamental purpose of the system, succinctly describing why it should exist and what should be done to achieve the vision of the system. It answers the question(s) "Why do we exist?"; "What is our core business?"; or "What do we do that makes us unique?"

A summary of the core business of the CVRS system assumes that the national leadership team and key stakeholders are in agreement on what the strategy should achieve; who the stakeholders are; what domains of the system are to be covered; what products should be produced for each domain; how the products should be produced; what value the products will add to stakeholder demand that cannot be provided by competitors; etc. The mission for the CRVS system should be based on national legislation.

It is important to be clear about the mission for the CRVS system strategy. It is more than the registration of vital events and the resulting vital statistics —it is about transforming the current and potentially ad hoc or lopsided way of organizing civil registration into a holistic and comprehensive system. The mission should pertain to the purposes and goals of the system.

Mission statement: The mission statement should suggest the successful way to achieve the vision of the CRVS system. The length of the statement varies among organizations. Ideally, the statement should be a concise one- or two-sentence declaration defining the sole purpose of the CRVS system. Each

CRVS system should have a mission statement —to provide a context for planning and improvement efforts, and to ensure that everyone knows where they fit into the system and what direction the system aims to take. The statement should also define what makes the CRVS system unique.

The mission statement should contain the following:

1. Purpose, aims, or overall goal of the CRVS system — the opportunities or needs the system is intended to address;

2. What the CRVS system will do to address those needs — the business of the system;

3. Key stakeholders and clientele (users, producers, suppliers);

4. Contribution or actions of the CRVS system and the value they will add to stakeholders (for example, to improve coverage, quality, and timeliness);

5. Beliefs or principles of the system that will guide its work — values of the system.

Here are country examples of CRVS systems improvement mission statements:

- Rwanda (2017): To build a modern, timely, complete, and integrated CRVS system to ensure legal identity for all, good governance, and evidence-based decision-making for sustainable development.

- Nigeria (2017): An effective, accessible, and functional CRVS system that provides complete, accurate, and timely statistics of all births, deaths, stillbirths, marriages, and divorces in a holistic, comprehensive, and collaborative manner; and to maintain a robust and integrated database of vital events for effective planning, decision making, and national development.

- Cambodia (2017): To register all individuals and vital events in a transparent, non-discriminatory and efficient manner in order to issue proof of identification for ensuring equal rights in society and for providing reliable and protected data for good governance and for the development of the private and public sectors.

- Philippines (2014): The Civil Registration and Vital Statistics System, as a network, is committed to collect, compile, process and generate quality data on vital records through an effective and efficient civil registration system to meet the needs of individuals, the nation, and global community.

Step 3: Review or define core values for the CRVS system

Core values are the fundamental shared principles of the CRVS system that will guide the behavior of those involved in or with the system. They stipulate how the system will handle its business affairs.

There is a strong causal association between corporate values and corporate culture. In fact, corporate values are often used interchangeably with corporate culture. They create and drive a culture for strategy and provide a framework in which decisions are made. For example, values will affect how the strategy is managed by defining expectations for relationships among the people involved with the strategy. Culture, as a manifest pattern of behavior, is a function of values and the environment — it influences individual behavior.

Culture gives personality to the organization by answering the question, "How do we do things around here?"

Shared values guide organization members on how to approach their work and deal with each other and their clients and stakeholders. They help define members' worldview, through customs and habits. It is easier to change the structure of an organization than the culture. But values play the biggest role in whether an organization succeeds.

Values for the CRVS system should be used as drivers of change, aiming to preserve what is good in the existing culture of the system and individual CRVS institutions and changing those aspects of the culture that do not support the CRVS system. This requires an analysis of the existing culture to determine what to change or not change, with a view to cultivating a work ethic that supports the CRVS improvement strategy. A performance-based value system that is in keeping with the principle of managing for results should be promoted to avoid outdatedness and wastage.

A set of values to be internalized by stakeholders should be defined to regulate behavior through setting boundaries (what to do or not do, when to do it or not do it, and why); promote norms (how people should behave); and promote beliefs or ideas in terms of shared views that aim toward the system's goals (for example, a system's view of "being the best it can be").

Statement of values: A statement of values should be developed for the CRVS system and for its individual constituent institutions. Institutional value statements should be unequivocally aligned with the system's value statement in terms of what the system stands for, what it believes in, and what guides its behavior and decision-making.

Defining and implementing corporate values is often the weakest part of corporate envisioning. Value statements tend to sound like slogans, and they are hardly ever internalized by employees — a necessary step for them to be effective.

Developing value statements should involve the entire staff. These statements should be continuously communicated so that they are internalized as corporate social norms and shared values. The basic statement of values should be the foundation of corporate culture and character. It should be enduring — its expressed values should outlast any studies of the system.

Values are intended to drive the people — not the business — of the organization. Accordingly, staff members should align their personal values with organizational values. Incorporating value statements into staff performance appraisal systems is recommended. Value statements should be institutionalized within the system's culture to stipulate how the system will handle its business affairs.

Here are four country examples:

- Rwanda (2017): Excellence and innovation; Collaboration and teamwork; Commitment to achieving results; Transparency and accountability; and Perceptiveness.
- Lesotho (2015): Transparency and accountability; Respect; Credibility; Integrity; Accessibility; and Timeliness.
- Tanzania (2014): Integrity; Teamwork; Service excellence; Professionalism;

Stakeholder collaboration; and Innovative.

· Ethiopia (2013): Secure individual records; Customer satisfaction; Transparency and accountability; Confidentiality; Teamwork; Professionalism; Creating a healthy and convenient work atmosphere; and Gender equity and equality.

The three statements — vision, mission, and values — should be continuously communicated to both internal and external stakeholders (particularly internal stakeholders) in such a way that they are easily remembered and applied to their daily work. The statements should be assimilated into the culture of the CRVS system through internal and external dialogue, and they should be acknowledged tools for leadership and organizational change and be used to motivate and inspire staff.

Annex D: Core CRVS business processes

System	Vital event	Process	Description of process
Civil registration	Birth	Timely registration and certification of birth occurring at home	The civil registration and certification of a birth that occurs at home and that was declared to the civil registrar within the period specified by law.
		Timely registration and certification of birth occurring at a health facility	The civil registration and certification of a birth that occurs at a health facility and was declared to the civil registrar within the period specified by law.
	Death	Timely registration and certification of death occurring at home (with cause of death, as applicable)	The civil registration and certification of a death that occurs at home and has been declared to the civil registrar within the period specified by law; the process may contain measures to collect cause-of-death information.
		Timely registration and certification of death occurring at a health facility ((with cause of death)	The civil registration and certification of a death that occurs in a health facility and has been declared to the civil registrar within the period specified by law; the process should contain measures to collect cause-of-death information.
	Marriage	Timely marriage registration and certification	The civil registration and certification of marriage that has been declared to the civil registrar within the period specified by law.
	Divorce	Timely divorce registration and certification	The civil registration and certification of divorce that has been declared to the civil registrar within the period specified by law.
Vital statistics	All	Production and dissemination of vital statistics	Timely production and dissemination of high-quality vital statistics from civil registration records.

Annex E: Completed Business process description for timely registration and certification of a birth occurring at home (as-is and desired process)

This is a sample process.

	As-is Process Description	Desired Process Description
Name of process	Timely registration and certification of birth occurring at home	Timely registration and certification of birth occurring at home
Process actors	Authorized family member ("Family"), local authority, local health facilities, subnational civil registration (CR) office, central CR office	Authorized family member ("Family"), community health worker (CHW), local health facilities, hospital / other data entry site, central CR office
Process purpose	To ensure that every birth that occurs at home that has been declared to the civil registrar within the period specified by law for timely registration, is registered and certified.	To ensure that every birth that occurs at home that has been declared to the civil registrar within the period specified by law for timely registration, is registered and certified. The desired process reduces the number of visits to different locations required for the family.
Triggers	Formal report of the occurrence of the birth by the family	Attending CHW is present at the birth or receives report of birth from the family

Process flow*	1. Report Birth	1. **Report Birth**
	1.1. Authorized family member reports occurrence of birth to nearest local authority (for example, village head)	1.1. Attending CHW (for example, midwife, traditional birth attendant, or village health worker) is present at the birth or receives report of birth from the family
	1.2. Local authority issues proof of birth to family	1.2. CHW verifies birth
	1.3. Family receives proof of birth	1.3. CHW fills out declaration form and collects other documentations
	1.4. Family submits proof of birth to local health facility	1.4. CHW issues acknowledgement of declaration to family
	1.5. Local health facility receives proof of birth	1.5. Family receives acknowledgement of declaration
	1.6. Local health facility verifies birth and issues birth notice	2. **Declare birth**
	1.7. Family receives birth notice	2.1. Attending CHW transmits declaration form to local health facility
	2. Declare birth	2.2. Local health facility receives declaration form and other documentations
	2.1. Family submits birth notice and other documentations to the subnational (for example, District) CR official	2.3. Local health facility reviews declaration form and other documentations
	2.2. CR official receives the birth notice and other documentations from the family and requests family to fill out a declaration form	2.4. Declaration form is entered into central IT system:
	2.3. Family fills out declaration form and submits to CR official	2.4.1. If local health facility has IT capabilities
	2.4. CR official receives declaration form	2.4.1.1. the local health facility enters declaration form and scans and uploads declaration form and other documentations into central IT system
	2.5. CR official issues acknowledgment of declaration and requests family to return in 15 or more days for birth certificate	2.4.2. If local health facility does not have IT capabilities:
	2.6. Family receives acknowledgment of declaration and waits 15 days or more	2.4.2.1. Local health facility brings declaration form and other documentations to hospital/other data entry location
	3. Register birth	2.4.2.2. Hospital/other data entry location receives declaration form and other documentations
	3.1. CR official reviews and verifies documentation	2.4.2.3. Hospital/other data entry location enters declaration form and scans and uploads declaration form and other documentations into central IT system
	3.2. CR official enters birth into central CR IT system	2.5. Central IT system receives birth data
	3.3. Central IT system receives and stores birth data	3. Register birth
	3.4. CR official formerly registers the birth in CR IT system	3.1. Central CR official verifies birth declaration
	3.5. CR official archives the documentation	3.2. Central CR official formerly registers birth in CR IT system
	4. Certify birth	3.3. Central IT system informs local health facility or hospital/other data entry location that the registration is complete and certificate can be issued
	4.1. Family submits acknowledgment of declaration and requests birth certificate to subnational CR office	4. Certify birth
	4.2. CR official receives acknowledgment of declaration	4.1. Local health facility receives certificate
	4.3. CR official confirms registration of birth	4.1.1. If Local health facility has IT capabilities
	4.4. CR official prints birth certificate and submits to family	4.1.1.1. Local health facility prints birth certificate
	4.5. Family receives birth certificate	4.1.2. If local health facility does not have IT capabilities,
		4.1.2.1. Hospital/other data entry location prints birth certificate
		4.1.2.2. Hospital/other data entry location sends birth certificate to local health facility
		4.1.2.3. Health facility receives birth from hospital/other data entry location
		4.2 CHW returns to local health facility
		4.3 Local health facility issues birth certificate to CHW
		4.4. CHW receives birth certificate
		4.5. CHW brings birth certificate to family
		4.6. Family receives birth certificate
Process output	Birth registered in the CR IT system; birth certificate printed	Birth registered in the CR IT system; birth certificate printed

Date created:	01.01.2020	Last revision date:	14.05.2020	Date created:	01.03.2020	Last revision Date:	10.05.2020

* The level of detail of the process flow shown in this example may not be needed for the process description templet and the level of detail can be adjusted according to local needs. The details here will facilitate the development of the process maps.

Annex F: Journey Map

Journey Map
Developed by:

Scope of Experience: _____

NOTE: Print on A3 paper, use a sticky note for each entry; alternatively, use pencil to fill in sections.

Phases of Experience	List out the steps in the arrows above.
Actions/ Activity/Process What are the activities being conducted and by whom? List the responsible parties for undertaking actions.	
Platforms, technology What are the platforms (paper form, mobile apps, phone, email) that are used?	
People Where is the action occuring at each step? What's happening during this activity?	
Decisions What are the decisions that were agreed upon? List who is responsible for decision. How will these decisions be shared out?	
Time& Cost Document the time & cost for each step	
Pain points Are there any pain points or challenges?	

Annex G: Suggested key performance indicators for use with the CRVS Systems Improvement Framework

Countries should identify the performance parameters associated with each CRVS process and aim to improve performance against these parameters. The following table presents suggested key performance indicators (KPIs) that can be used to assess the performance of the CRVS system. There are three different types of indicators in the table. One section, comprising two higher-level indicators, reflect the overall progress and efficiency of a country's CRVS system. The remaining KPIs are grouped into two sections: client-centric and service provider-centric. The two high-level KPIs in section 1 and select KPIs from sections 2 and 3 can be used as monitoring indicators in the routine monitoring of the CRVS system (see Stage 3 of the framework).

The KPIs can be quantitative or qualitative. For example, the value for the indicator "registration completeness" is numeric and is expressed as a percentage. Indicators such as "Does the country compile vital statistics based on civil registration?" will have a "yes" or "no" response. The data for other indicators, such as "Time taken to complete registration and receive certificate," though quantitative, cannot be one single numeric value and may vary widely from one geographical area to another, especially between rural and urban areas. For indicators such as these, it is advisable to capture the variation; as an average in these cases will not reflect the actual performance issues in difficult areas of the country. Furthermore, exact values cannot be easily assigned to the indicators in some cases — instead, ranges can be used. For example, "average time taken to obtain a birth certificate" may be best expressed in a range, such as 1 to 3 days.

Sl No.	Key performance indicators and milestones	Possible baseline value	Possible source(s) and challenges	Possible root cause	Possible redesign	Comments (if any)
1	**High level**					
1.1	Percentage of events notified, registered, and certified within the time limit prescribed under the law out of the expected number of events occurring within the territory of the country · Separately for births, deaths, and marriages · Separately for notification, registration, and certification · Separately for each sex · Separately for each major administrative unit	Numerator: Number of events notified, registered, and certified during the calendar year Denominator: Estimated number of events (to be obtained from National Statistics Organization or Ministry of Health	Registration records National Statistics Organization			

Sl No.	Key performance indicators and milestones	Possible baseline value	Possible source(s) and challenges	Possible root cause	Possible redesign	Comments (if any)
1.2	Percentage of events notified, registered, and certified within the time limit prescribed under the law and within one year of occurrence · Separately for births, deaths, and marriages · Separately for notification, registration, and certification · Separately for each sex · Separately for each major administrative unit	X% within prescribed time limit Numerator: Events [notified, registered, or certified] within the legally stipulated period Denominator: Estimated number of events Y% after prescribed time limit but within 1 year of occurrence Numerator: Events [notified, registered, or certified] after prescribed time limit but within 1 year of occurrence Denominator: Estimated number of events Z% after 1 year of occurrence Numerator: Events [notified, registered, or certified] after 1 year of occurrence Denominator: Estimated number of events	Registration records			

Sl No.	Key performance indicators and milestones	Possible baseline value	Possible source(s) and challenges	Possible root cause	Possible redesign	Comments (if any)
1.3	Percentage of events registered out of the number of events known to the health sector • Separately for births and deaths • Separately for each sex	Numerator: Number of events registered Denominator: Number of events known to the health sector	Registration Records Ministry of Health			90

2	**Client-perspective**					
	Access to registration and certification services					
2.1	Provinces, states, districts or other areas that have no registration services	List administrative units that have no services	Civil registration (CR) law and/or administrative orders Annual report on CR system	The law explicitly excludes certain areas and does not mandate registration of all events Registration centers in some areas are non-functional, due, for example, to conflict or complete absence of physical infrastructure and human resources	Advocate to amend the CR law to mandate registration of al;l events and include all areas within the boundaries of the country Make special arrangements to register events occurring in conflict areas Organize mobile registration units to cater to these areas Change the process to use community health workers, village chiefs, or village-level workers to facilitate declaration and send the completed declaration forms to the assigned registration center	One of the main principles of CR is universality. It is critical that this rights-based approach is followed in letter and spirit. Therefore, countries' CR laws must ensure that no person is left behind by design
2.2	No specific population groups are left without registration services (e.g. noncitizens, refugees, or internally displaced persons)	List of omitted groups	CR law or administrative orders	The CR law explicitly excludes certain population groups	Advocate to amend the CR law to include all populations within the scope of civil registration Establish special registration centers in big refugee camps to capture events occurring to refugee families	In some countries, special arrangements may have to be made for internally displaced persons

2.3	Estmated average distance to registration service	~X km (rural) ~X km (urban) *or* ~Y km in, for example, hilly province ~Z km in other provinces *or* ~Y to ~Z km	Past assessment or study. The average distance may vary by province or district. Range as a measure can also be used. This can also be obtained or validated during the field visit through a convenient sample of exit interviews.	Registration service located at province or district level or otherwise located at a far distance and hard to reach The CR law provides for the current organizational arrangement and process	Change process to use community health workers, village chiefs, or other village-level workers to facilitate declaration and send the completed declaration forms to the registration service Organize mobile registration units that will visit localities at regular intervals or organize periodic registration camps Explore digital transfer of declaration forms from health facilities using information technology Amend law to authorize the abovementioned functionaries to act as informants	It is assumed that the average distance in urban settings is not a major issue. However, there may be situations where mothers who come to cities or towns for from elsewhere for delivery and return to their usual residence must return to that city or town to register the birth of their children and obtain birth certificates. This is also true for the registration of deaths occurring in cities or towns
2.4	Average time taken to travel to registration service	X hours (rural) X hour (urban)	Past assessment or study. Range as a measure can also be used as an alternate to average. This can also be obtained form a convenience sample during the field visit through exit interviews.	Registration service located at province or district level or otherwise in a location that requires long travel time to reach	Same as above	Same as above
	Costs of registration and certification					
2.5	Cost of registration · Separately for birth, death, and marriage registration	Cost in local currency for certifying each type of vital event	Rules or administrative orders	The CR law provides for registration fees	Amend law to make registration services free	Some countries may have different fees for urban and rural areas or for different administrative areas. In such cases, this should be appropriately reflected in the baseline value
2.6	Cost for obtaining certificate · Separately for birth, death, and marriage registration	Cost in local currency for certifying each type of vital event	Rules or administrative orders	The CR law provides for certification fees	Amend law to make the first copy of the certificate free	Same as above. In some countries the first copy of the certificate is provided free of charge and additional copies are charged. If this is the case, that should be noted.

	Certification of registered events					
2.7	Percentage of population who received registration certificates out of those who registered the events · Separately for birth, death, and marriage certificates · Separately for urban and rural and by major administrative areas · Separately by sex	X% Numerator: Population who received registration certificates Denominator: Population who registered the events	For birth certificates, mainly from Multi-Indicator Cluster Survey or Demographic and Health Survey Ideally, the CR management information system should collect the data for each registered event in a routine manner	The business process a) puts the onus on the parents or family members to collect the certificate, which may involve visit(s) to registration center; and b) does not allow for certificates to be issued immediately after registration Certificate is not required for any purpose and therefore there is no incentive for collection People are not aware of the importance of certificate Blank certificate form not in stock Cost of certificate too high Shortage of staff or long absence of staff that are designated to sign certificates, making it difficult to issue certificates	Change the process to a) ensure that the certificates are issued promptly after registration; b) open registration centers within large health facilities for prompt issuance of certificate; and c) use networks, such as health and local administration, to deliver certificates Create demand for certificates Launch publicity campaign with messages related to importance of certificates Ensure supply of forms and registers Amend law to make the first copy of certificate free of charge Ensure that positions are filled quickly or alternative arrangements are made through various possible actions, such as delegation of duties to other staff in the center	
	Time required to complete registration and certification					

2.8	Average waiting time to register an event after the declaration is made	· Promptly: 　o same day (within 3 hours) or 　o same day (beyond 3 hours) · Within 1 to 3 days · Beyond 3 days	Past assessment or study. This may vary depending on the level and extent of digitization. This can also be obtained or validated during the field visit through a convenient sample of exit interviews and observation method.	The workflow in the registration center for converting the declaration to registration involves cumbersome and non-value-added activities Very heavy workload at the registration center Shortage of registration forms If registration process is automated or digitized, the computer is not working or the internet is down	Redesign the workflow for the registration process by removing non-value-added activities Redesign process through opting for a more decentralized process Explore digitization of registration process Ensure printing and supply of forms and registers in the registration centers Ensure proper upkeep of equipment Redesign the process to enable offline registration	When registration and certification are not completed on the same day, parents or family members must return to the registration centers a second time
2.9	Estimated average waiting time to obtain a certificate after registration of event · Separately for birth, death and marriage	· Promptly: 　o same day (within 3 hours) 　or 　o same day (beyond 3 hours) · Within 1 to 3 days · Beyond 3 days	Past assessment or study. This may vary depending on the level and extent of digitization. This can also be obtained or validated during the field visit through exit interviews and the observation method. The idea is not to get the exact estimate but to get an idea about the extent of the problem, if any.	The workflow in the registration center for issuance of certificate after completion of registration involves cumbersome and non–value-added activities Very heavy workload in the registration center Shortage of blank certificate forms In some places where the registration process is automated or digitized, the computer is not working or the internet is down	Redesign the workflow for the registration process by removing non-value-added activities Redesign process to be more decentralized Explore digitization of registration process Ensure printing and supply of forms and registers in the registration centers Ensure proper upkeep of equipment Redesign or implement a process to ensure offline certification	
	Complexity of the CRVS processes					

2.10	Is name of the child compulsory for birth registration?	Yes/no	Civil registration law/standard operating procedures (SOPs)	The law does not allow registration of a child without a name	Amend the law to allow registration without name and provide for insertion of name later	In many countries, children are not named immediately after birth; refusal to register a birth without a name acts as a barrier for registration
2.11	Is production of marriage certificates compulsory for registration of birth?	Yes/no	Civil registration law or SOPs	Law does not allow registration of child without parents showing their marriage certificate	Amend the law to remove this provision or allow production of alternative documents	In many countries, marriage registration is not common, particularly in rural areas; having to show a marriage certificate can become a serious barrier for birth registration
2.12	Do both parents have to be physically present for registration of their child?	Yes/no	Civil registration law or SOPs	The law requires both parents to be present at the time of registration of the birth	Amend the law to allow one parent or head of the household to report a birth for registration	In countries where time limits for registration are short, it can be a challenge for a mother to stay away from the newborn for long, especially when the registration center is far away. The father may be staying elsewhere. Therefore, it is important to have another person in the family who can be designated as informant.
2.13	Is a court order or approval of higher authority required for late registration?	Yes/no	CR law	The law requires that a court order or approval of higher authority be obtained for registration of events after the time limit	Amend the law to provide a grace period (for example, 1 year) after the time limit; allow informants to report the event after the time limit and before the end of the grace period by submitting an application stating reasons for delay	In countries with low levels of awareness and inadequate and inefficient registration services, family members often fail to register events before the time limit

| 2.14 | Number of visits needed to register and certify the vital event

• Separately for birth, death, and marriage | Number of visit | Civil registration law or SOPs. This can also be obtained or validated during the field visit through a convenient sample of exit interviews and observation method. | Law mandates registration at subnational level civil registration office

Law mandates registration with birth notice from health facility

Law mandates the issuance of proof of birth from local authority to receive birth notice

Too many vital events to process along with other duties (leading to documents not being ready when the family comes and them having to come again)

Process not adequately digitized

Lack of monitoring | Establish regulation to allow Community Health Workers (ex: traditional birth attendant, midwife or village health workers) to act as informants for the civil registration of birth

Community Health Workers fill out and submit birth registration application form

Link electronic data capture at health facilities, district hospital, or other data entry location to central civil registration IT system to adequately digitise the process

Community Health Worker can pick up certificates and deliver to family | |
| | *Quality of registration and certification services* | | | | | |

2.15	Percentage of people satisfied with the quality of service provided · Process clarity · Friendly staff · Friendly waiting area in the registration center	percentage	Past assessments or study. This can also be obtained or validated during the field visit through exit interviews and observation method. The idea is not to get the exact estimate but to get an idea about the extent of the problem.	Publicity messages do not cover processes and only appeal to people to register events by highlighting the benefits	Redesign communication strategy to include messages on procedures and documents required for registration	This does not include prompt service, as it is already included in 8 and 2.9
				Registration centers do not have an information desk, portal or display board in the registration center providing details of the process	Develop a standard basic minimum infrastructure for a model registration center required to improve the client experience and include this in the budget demand for phase-based implementation	
				Not enough funds for improving infrastructure of the registration centers	Include client services in the training curricula of registration staff	
				Registration staff are not trained on the importance of client services	Develop a supervisors' manual that will include, among other things, ascertaining client satisfaction whenever they visit registration centers	
				Lack of supervision		

2.16	Number of corrections made per 100 registration records	X out of 100 registration records	This indicator should be compiled as a part of regular monitoring of the quality of any registration system. This is computed by counting the total number of corrections made during a specified period divided by the total number of registrations during the same period and multiplying the ratio by 100. Corrections in registration records are made only when requested by the clients, which is limited to the information available on the certificates they receive. However, in many instances, certificates are not received by or issued to clients, and clients may not request corrections. Therefore, the total number of mistakes may go unnoticed.	Registration staff are not sensitized to the importance of collecting correct information Lack of clarity among registration staff on the importance of data items in the registration Lack of proper supervision at all levels Quality parameters not included as part of regular monitoring	Redesign the training curricula for registration functionaries to appreciate the importance of each of the data items collected for registration Develop standard operating procedures that will include a detailed description of the concepts and importance of each of the data items in the registration record and the possible sources of errors and how to guard against them Develop a supervisors' manual that will include routine checking and feedback on type of errors made at the time of collection of information in declaration form and thereafter transcription in the registration records Include indicators on quality of registration record as part of the monitoring and evaluation framework	Two types of information are collected at the time of registration: legal and statistical. The collection of error-free legal information ensures error-free certificates, although data entry or transcription errors cannot be ruled out. Collection of good-quality statistical information produces good-quality vital statistics.
	Public engagement					
2.17	Percentage of the population with a vital event who are aware of the importance of registration	percentage percentage in rural areas percentage in urban areas	Past assessments or study. This can also be obtained or validated during the field visit through exit interviews and the observation method. The idea is not to get the exact estimate but to get an idea about the extent of the problem.	Inadequate or inappropriate communication strategy and messaging	Develop a communication strategy with appropriate messaging Leverage interpersonal communication, for example, as part of the maternal and child health program, for messaging on registration of births	

3	**Service provider**					
	Supervision, management, coordination, and monitoring and evaluation					
3.1	Institutional mechanism for field supervision exists	Yes/no	CR office documents and supervision reports	There is no established systematic supervision and feedback mechanism No supervisors' manual	Establish an institutional mechanism for field supervision and feedback for improvement of quality of services and products Develop a supervisors' manual Train supervisors on the different aspects of field supervision and feedback	
3.2	Mechanism for regular performance monitoring of registration system exists	Yes, on a regular basis Yes, but not regular No	CR office documents, monitoring reports, annual reports	There is no established system of regular monitoring of performance of the system	Establish a monthly monitoring system to monitor the performance of registration centers on the various aspects, such as a) number of events registered b) level of registration c) extent of late and delayed registration d) certificates issued e) stock of forms and registers Establish a real-time monitoring system	The monitoring system can help keep watch over poorly performing centers and enable managers to take steps to correct the situation as quickly as possible Countries that have a fully digitized system or that have automated their registration system can build a real-time monitoring system as an integral part of the system itself

3.3	Annual review of the CRVS system	Yes/no	CR office documents, annual reports	There is no established system of annual review of the CRVS system	Organize an annual review meeting or workshop at the national level of senior registration functionaries and other stakeholders, including relevant development partners and civil society organizations, to review the progress of CRVS systems, identify challenges, and propose further steps for improvement Organize an annual review meeting of civil registrars at the national or province levels to take stock of the performance of each province, identify field challenges, and make recommendations for action for improvement	Review meetings of the civil registration functionaries below the province level can be held on a more regular basis. The results of the regular monitoring system can be discussed in the annual review meetings
3.4	High-level interagency CRVS coordination committee at the national level exists and is functional	Yes, fully functional Yes, but not functional No, the committee does not exist	CR office documents, terms of reference of the high-level coordination committee, minutes of the meetings of the committee,	Designated lead agency has insufficient authority to convene other stakeholders Functioning high-level interagency CRVS coordination committee not prioritized by country leaders	Ensure that the high level CRVS coordination committee meets at predecided intervals and that guidance and directions are followed up through appropriate actions Advocate with country leaders to prioritize CRVS system governance and ensure functioning or establishment of high-level CRVS coordination committee Legal framework designates lead agency for high-level CRVS coordination committee with necessary authority to convene other stakeholders	

3.5	Technical Working Group at the national level exists and is functional	Yes, fully functional Yes, but not functional No, the group does not exist	CR office documents, terms of reference of the Technical Working Group, minutes of the meetings of the group	No functional or active high-level interagency CRVS coordination committee	High-level interagency CRVS coordination committee appoints Technical Working Group that provides technical guidance for the implementation of the CRVS system Ensure that the group meets at predetermined intervals and that decisions are followed up through appropriate actions	
3.6	Coordination mechanism at subnational level for day-to-day coordination exists and is fully functional	Yes, fully functional Yes, but functional only in a few areas No such mechanism exists	CR office documents, administrative directions for the establishment of these mechanisms, minutes of the meetings of the coordination groups	No designated committees at subnational level to resolve day-to-day implementation problems Lack of monitoring and followup on actions of existing subnational committees	Establish coordination committees at province or district levels with officials representing departments involved in registration work to resolve the day-to-day implementation problems Monitor the work of these committees in terms of meetings held and follow-up actions taken on the decisions of these committees	These local committees are critical for the day-to-day functioning of registration at the local levels, particularly when the different departments of the government are involved in registration work at the local level: for example, CR, health, statistics, local administration
	Production of quality and timely statistics					
3.7	Annual vital statistics report based on CR records compiled	Yes/no (indicate for how many of the previous years)	Vital statistics compiling office	The CR law does not provide for transmission of statistical records to vital statistics Low human resource capacity in vital statistics compiling office	Change the law to clearly define roles and responsibilities for transmission of statistical records and compilation of vital statistics compiling office Simplify the process for transmission of records Explore digital transfer of statistical data items Build capacity of staff of vital statistics compiling office	

3.8	Annual vital statistics report meets the quality standards and is produced on time	Error rate: X% missing data Y% inconsistent data Z% records received beyond the cut-off date	Quality measures compiled by the vital statistics compiling office	The data collected through the registration system are incomplete and inconsistent The statistical data are received in the vital statistics compiling office far beyond the cut-off date, resulting in incomplete vital statistics	Orient civil registration staff at the local level about the importance of statistical data items and the need to ensure quality In the case of online registration, build quality checks at the time of data entry to reduce error Ensure that the vital statistics compiling office provides feedback at various levels to the registration offices on common types of errors Include transmission of statistical data from registration centers as one of the performance indicators of the CRVS system	
3.9	If the country compiles an annual vital statistics report, does it produce all the tables recommended by the UN Statistics Division?	Yes/no	Annual Vital Statistics Report	Not all data items recommended in the priority list in the UN Principles and Recommendations for Vital Statistics are collected at the time of registration	Modify the declaration/ registration form to add any data items that are not included from the priority list of the UN Principles and Recommendations for Vital Statistics	
3.10	Vital Statistics Performance Index		Annual vital statsitics report			
	Production of timely and quality causes-of-death data					
3.11	Country collects cause-of-death statistics for all deaths occurring in health facilities using the international standard form for medical certification of cause of death or Percent of deaths with medically certified cause of death	Yes, in all health facilities Yes, but in X out of Y health facilities No, not in any health facility	Report on causes of death Health and CR office documents	No systematic process has been implemented for collecting data on causes of death from health facilities Not all health facilities are included within the purview of collection of causes of death data	Develop a roadmap for implementation on collection and compilation of causes-of-death statistics program Include all health facilities in the country, if required, in a phased manner Harmonize practices for medical certification of cause of death so that the international standard form for medical certification of cause of death is consistently used	

3.12	Causes-of-death statistics produced meet the quality standard and are produced in a timely way And / or Percent of deaths with unusable COD	Yes Yes, partially No	Causes-of-death report	ICD-10 or, starting latest from 2022, ICD-11 is not used for mortality coding of causes of death	Introduce WHO-recommended form for collection of data on causes of death from health facilities Introduce ICD-10 or, starting latest from 2022, ICD-11 in mortality coding of causes of death Implement a regular orientation and training program for doctors on the importance of cause of death and the actual process Implement a regular training program for coding staff on using ICD mortality coding	
3.13	Does the country have any system for collecting and compiling causes of death for deaths occurring at home?	Yes Yes, but not routinely No	Causes-of-death report	There is no established routine verbal autopsy system for collecting causes of death	Advocate for a routine verbal autopsy system of collection of data on causes of death for a sample of deaths occurring outside of medical care	
	Financing					
3.14	Is there adequate government funding allocated for maintaining the CR system and implementing the CRVS improvement plan?	Yes, for both Yes, for maintenance but not for implementation of improvement plan or vice versa No	Civil Registration Office	Government does not see the CRVS system as a priority	Advocate with policymakers at the highest levels about the importance of CRVS systems, including the utility for the system	
3.15	Is there funding available from development partners and donors to support implementation of the CRVS System Improvement Plan?	Yes Yes, but not adequate No	Civil Registration Office	Some development partners do not see the CRVS system as a priority	Advocate with donors and development partners about the importance of the CRVS system and how it aligns with their respective partners	

Annex H: Level 1 and Level 2 maps of the business process for the timely civil registration and certification of a birth occurring at home

Level 1 business process map for timely registration and certification of a birth occurring at home.

Level 2 business process map: Report birth

Level 2 business process map: Declare birth

Level 2 business process map: Register birth

Level 2 business process map: Certify birth

Annex I: Further fish bone examples for performance issues

Fishbone 1: Distance from home to registration service is too far

Categories (top): Human Resources · Physical Infrastructure · Information Technologies

Categories (bottom): Business Process · Policies, Laws and Regulations · Management and Coordination

Effect: Distance from home to registration service is too far

Causes:
- Law mandates registration at district civil registration office
- Civil registration offices located at district capital
- Law mandates registration at district civil registration office
- Civil registration computers only at district level
- Civil registration only possible at district level
- Law mandates registration at district civil registration office

Fishbone 2: High-level interagency CRVS Coordination Committee exists but no regular meetings, no endorsed TOR, no defined membership

Categories (top): Human Resources · Physical Infrastructure · Information Technologies

Categories (bottom): Business Process · Policies, Laws and Regulations · Management and Coordination

Effect: High-level interagency CRVS Coordination Committee exists but no regular meetings, no endorsed TOR, no defined membership

Causes:
- no identified High-Level CRVS Coordination Committee members
- Designated lead agency with insufficient authority to convene other stakeholders
- Relevant agencies have not appointed High-Level CRVS Coordination Committee members
- Functioning High-Level CRVS Coordination Committee not prioritized by country leaders
- No directive to legal agencies to draft such policies, regulations, laws
- No clear policies, regulations or laws regarding governance of High-Level CRVS Coordination Committee
- no clear roles or responsibilities among agencies
- Designated lead agency with insufficient authority to convene other stakeholders
- Lack of TOR
- Stakeholder collaboration fraught
- Designated lead agency with insufficient authority to convene other stakeholders

Human
Resources

Physical
Infrastructure

Information
Technologies

Technical Coordination
Committee members
not appointed

No functional or
active High-Level
CRVS Coordination
Committee

No clear definition and
criteria for Technical
Coordination Committee

Interagency
Technical
Coordination
Committee exists
but no regular
meetings, no
endorsed TOR,
no defined
membership

No existing management
structure for establishing
and activating Technical
Coordination Committee

No functional or active
High-Level CRVS
Coordination Committee

Business
Process

Policies, Laws
and Regulations

Management
and Coordination

Annex J: Conducting the field assessment

Preparation for field visits

The core team, in consultation with the Technical Working Group (TWG), should select the sites for field visits. The unit of selection will be local registration offices and their catchment areas. The other offices or institutions with which these registration centers interact on a day-to-day basis (such as the local health facility) should also be visited to observe, better understand, and analyze the processes and possible associated challenges (for example, limitations in enablers or coordination issues). The provincial or district offices that coordinate the work of the local registration offices should also be visited to learn about and observe upstream processes and capabilities.

The selection of sites will not necessarily be random but should be representative of geographic diversity, making sure that the sample covers rural, semi-urban, and urban areas, as well as hard-to-reach areas, as required for the validation of information in the CRVS-SAR tools. The capital city should be necessarily included in the sample. The sample should also cover any special populations, such as refugees, internally displaced persons, and nomads. The number of sites will be decided based on resources at hand.

The field teams, after having received the orientation training and having planned their field visits, will embark on the actual field assessment. There are some preparatory steps that each team will have to take before proceeding to the actual field assessment. A schedule of visits will be required: offices to be visited will need to be briefed well in advance. Those in roles of counterparts in the field offices will have to be well specified and provided with guidelines to help prepare for the visit and any prior arrangements for interviews. Careful consideration will have to be given to the issue of advance notice for some of the office visits. The effect on the visit may vary from country to country. The preparatory information provided to the officials who are to be visited should be sufficient to help them prepare for the visit, but details about what the team will be looking out for should not be provided so field teams can observe business as usual in the offices.

All field assessment teams should be provided with the following documents:

· Copies of the as-is process maps finalized in the workshop;

· Copies of the CRVS-SAR tools updated in the workshop;

· Copies of key laws, rules and regulations, and all relevant standard operating procedures; and

· Field questionnaires (as applicable).

Data collection during the field visit

Field teams can adopt a variety of approaches for collecting information during the visits. These include observations, face-to-face interviews, and focus group discussions with service providers, clients receiving the services (including those waiting for the service and those who have just received the service), program managers, key informants and other individuals whose views can influence the service process, and representatives from parts of the population who have no experience with any of the registration services. Each team may need a combination of methods to complete the assignment in the field. Suggested methods are described below.

- *Face-to-face interviews:* Interviews should be conducted to obtain in-depth information about the knowledge and execution of current practices and perception or knowledge of problems within those practices. Information collected in the applicable CRVS-SAR tool should be used as a guide to elicit the information. As an informal conversation, the plan should be to explore specific topics raised in the interview and to follow all leads that emerge during the discussion. Probing and posing follow-up questions should be key to gaining an understanding of the perspectives of interviewees.

- *Observation:* The field team should observe practices pertaining to registration, validation, certification, transmitting, compiling and storing of data, and other steps in the CRVS business processes, as applicable. Observation is an important way of collecting information about people, since their description of their work don't always match with actual practices. The field team should anticipate that something could go awry with the process during their observation. The decision to intervene should have to be weighed against the impact of being able to observe actual practices in the field. For example, if the objective is to assess how long it takes to register an event, then observers should not intervene in situations that could reduce the time. But if it would ease a mother to be helped with carrying her child, this can be done, since it does not affect the time for the registration. The burden that the process places on the mother could nevertheless be noted. If exit interviews are planned, however, intervening with this help may affect the outcome of the interview and should not be undertaken.

- *Focus group discussion:* Some interviews can be conducted in a group setting. The groups are used to clarify or confirm data gathered through other qualitative methods. An effective focus group should include six to twelve participants purposely selected to provide information of interest for the assessment.

The field teams should make every effort to take extensive field notes, which should be used later in the analysis. All team members should take field notes on a daily basis and make sure that their notes cover their area of expertise (for example, the legal expert should document observations on the legal bottlenecks observed in the field). If available, the use of photography and video is recommended to help with observation; however, it should be carried out in a way that acknowledges local cultural context.

Reporting on the assessment findings

The core team should use the information gathered from the survey to review the as-is process descriptions and maps and the information in the CRVS-SAR tool. The team should discuss if any of their work in the field ought to lead to changes or additions to these documents. For example, if the process in the field is different from that shown on the process map, this should be noted and the relevant adjustments made to the map. Changes to the CRVS-SAR tool may include observations on baseline information, unidentified root causes, or even new issues to be added to the CRVS-SAR.

Each team should prepare a field report that should include a narrative on the actual observations, notes, recordings of interviews and focus group discussions, photographs, and video recordings. The report should include recommendations for redesigning CRVS processes as well as enabler improvements that may be required. This information is to be captured in the "Redesign proposals" column of the CRVS-SAR. The as-is process descriptions and maps and the CRVS-SAR tools with comments should be annexed to the field report.
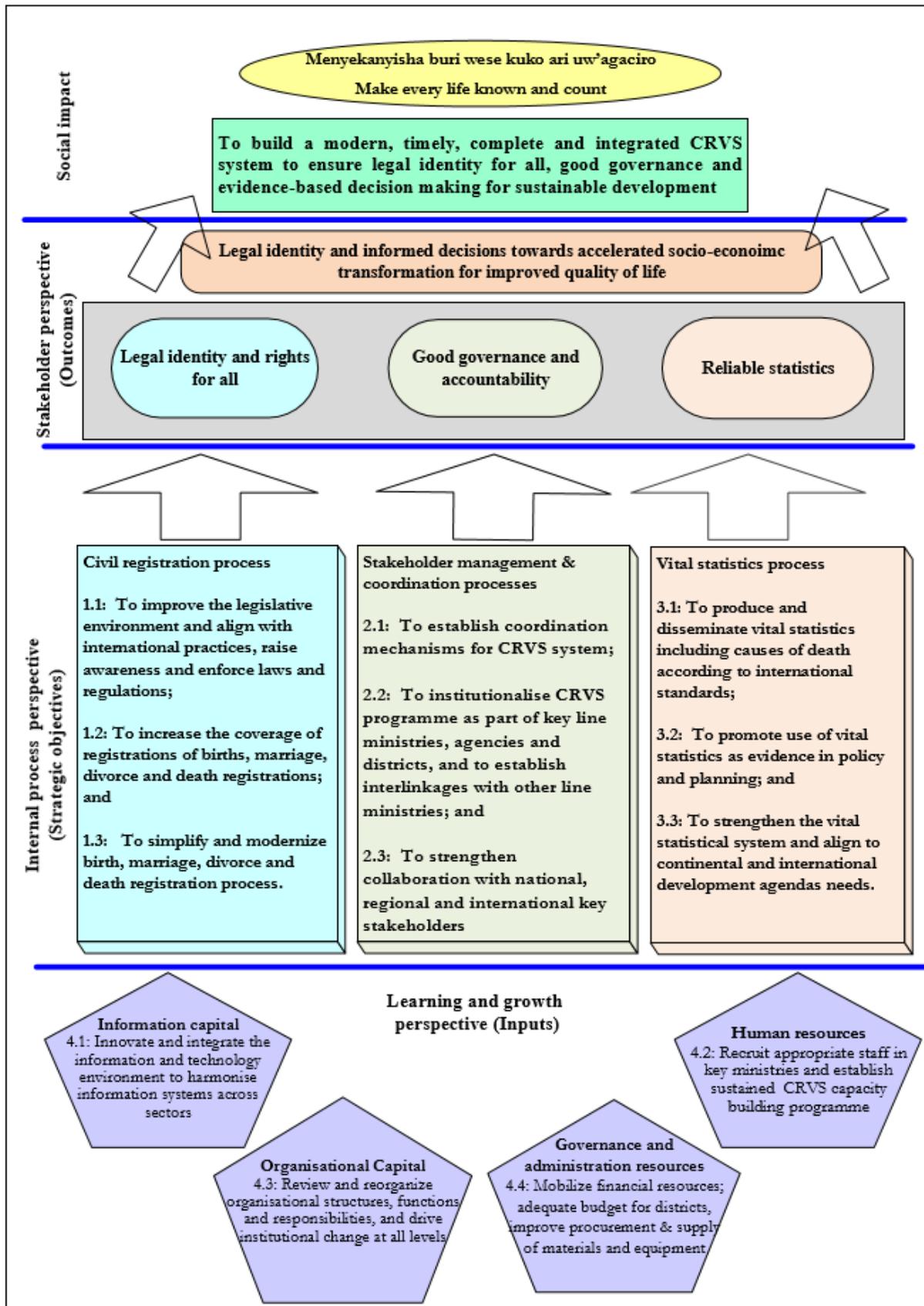
Annex K: Process innovation techniques[29]

Heuristic ("R")/question	Apply when ...
1 **Rethink**	
How could the efficiency of an activity be improved?	· examine every activity to see if any rethinking is possible.
2 **Reconfigure**	
How could an activity be eliminated?	· the activity generates minimal or no value
How can similar activities be consolidated?	· similar activities are performed in multiple locations
	· similar activities are performed inconsistently
	· there could be shared services or other economies of scale
How can reconciliation be reduced by putting quality at the source?	· considerable time is spent reconciling paperwork and correcting errors
	· there is little accountability for errors
How can information-sharing with partners and clients improve the process?	· demand is uncertain or unpredictable
	· items are frequently out of stock
	· inventories are excessive
How can intermediaries and non-value-added work be eliminated?	· intermediaries add no value, merely relaying goods and services
How can best practices from other sectors be borrowed and improved upon?	· keep looking for new ideas
3 **Resequence**	
How can predicting increase efficiency?	· accurate information on client demand is available early
	· time compression is more critical than accuracy or inventory costs
	· product or service variations are relatively low
How can postponement increase flexibility?	· clients want customized products or services
How can parallelism reduce time?	· limited timing dependencies exist between activities
	· time compression is critical
	· rework is necessary due to late error detection
How can the number of interconnections and dependencies be minimized?	· bottlenecks, large queues, or frequent handoffs are an issue
4 **Relocate**	
How can the activity be moved closer to the client or partner to improve effectiveness?	· distance from the client or supplier introduces delay, miscommunication, or error
	· client convenience is critical
	· client volume is large enough and transportation lead times or costs are high
How can the activity be moved closer to related activities to improve communication?	· activities require a high level of teamwork or collaboration
	· review and errors are hard to trace back to the source
How can the cycle time be decreased by reducing travel time and distance?	· travel accounts for a significant part of the process
How can geographically virtual organizations be created?	· resources are geographically dispersed, but don't need to be physically nearby to produce an outcome
5 **Reduce**	
How can the frequency of the activity be reduced or increased?	an activity is non-value-added but necessary
	there is low variation in the process or product
	there is high variability and low setup costs and times
How would more information enable greater effectiveness?	· higher accuracy is needed
	· greater segmentation would yield greater marketing effectiveness

29 Adapted from "The 7Rs of Process Innovation" (http://www.stephenshapiro.com/pdfs/7rs.pdf; accessed 30. June 2020)

Heuristic ("R")/question		Apply when …
	How would less information or fewer controls simplify and improve efficiency?	· a high proportion of costs goes to data collection or controls · the value received from information or controls is minimal
	How can critical resources be used more effectively?	· utilization of key resources is low · critical resources are performing non-value-added or waste work
6	**Reassign**	
	How can existing activities and decisions be moved to a different organization?	· another organization has skills or resources you lack · it is too difficult to change the previous operating model or culture
	How can the activity be outsourced?	· it is neither critical nor a core competency · you have limited resources and want to focus on core competencies
	How can the client perform this activity?	· clients want to be empowered to help themselves (self-serve) · costs need to be reduced
	How can the organization perform an activity that the client is already performing?	· the client wants more value or convenience · the organization wants to get closer to the client
	How can cross-training integrate and compress tasks?	· multiple tasks are needed to produce an outcome
	How can suppliers or partners perform this activity?	· the activity is not a core competency · the activity is in an area of the service that may change rapidly in the future, requiring added flexibility
7	**Retool**	
	How can technology transform the process?	· attempting to make time, location, or performer irrelevant
	How can the activity be automated?	· the current process is paper-based or manual and cannot be eliminated · the activity suffers from errors, inconsistency, or reconciliation problems · greater transaction volumes are needed
	How can up-skilling, down-skilling or multi-skilling improve the process?	· client satisfaction is low (up-skilling) · multiple specialists are needed to produce an outcome (multi-skilling) · technology can create knowledge workers (down-skilling)

Annex L: Example of a civil registration and vital statistics strategy map[30]

Social impact

Menyekanyisha buri wese kuko ari uw'agaciro

Make every life known and count

To build a modern, timely, complete and integrated CRVS system to ensure legal identity for all, good governance and evidence-based decision making for sustainable development

Stakeholder perspective (Outcomes)

Legal identity and informed decisions towards accelerated socio-econoimc transformation for improved quality of life

Legal identity and rights for all

Good governance and accountability

Reliable statistics

Internal process perspective (Strategic objectives)

Civil registration process

1.1: To improve the legislative environment and align with international practices, raise awareness and enforce laws and regulations;

1.2: To increase the coverage of registrations of births, marriage, divorce and death registrations; and

1.3: To simplify and modernize birth, marriage, divorce and death registration process.

Stakeholder management & coordination processes

2.1: To establish coordination mechanisms for CRVS system;

2.2: To institutionalise CRVS programme as part of key line ministries, agencies and districts, and to establish interlinkages with other line ministries; and

2.3: To strengthen collaboration with national, regional and international key stakeholders

Vital statistics process

3.1: To produce and disseminate vital statistics including causes of death according to international standards;

3.2: To promote use of vital statistics as evidence in policy and planning; and

3.3: To strengthen the vital statistical system and align to continental and international development agendas needs.

Learning and growth perspective (Inputs)

Information capital
4.1: Innovate and integrate the information and technology environment to harmonise information systems across sectors

Organisational Capital
4.3: Review and reorganize organisational structures, functions and responsibilities, and drive institutional change at all levels

Governance and administration resources
4.4: Mobilize financial resources; adequate budget for districts, improve procurement & supply of materials and equipment

Human resources
4.2: Recruit appropriate staff in key ministries and establish sustained CRVS capacity building programme

30   CRVS Systems of Rwanda. National Strategic Plan. statistics.gov.rw/publication/crvs-national-strategic-plan/.

Annex M: Template for strategic action plan

Section A: Strategic overview

1. Introduction

2. Background

3. Purpose of the strategic action plan

   · *State why the plan was developed.*

   · *Describe the activities and processes followed to develop the strategic plan, including stakeholders consulted.*

4. Legislative mandates

   State the name of the relevant laws and outline the key responsibilities of the different institutions involved in the project.

5. Situation analysis

   Present the results of the analysis and assessment of the CRVS system in relation to findings in the external and internal environments. It is important to summarize the service delivery environment, including the demand for services and the nature of the challenges to address. Describe where you are now, what the issues and bottlenecks are, and what opportunities and threats exist.

6. Problem statement

   Conclude section A by summarizing or synthesizing the overall problem the strategic plan aims to address and thereby defining the rationale for change.

Section B: Strategic direction

7. Strategic shift

   Discuss the paradigm shift required to drive a new strategic direction for CRVS in response to the problem statement.

8. Vision

   State the vision of the CRVS project.

9. Mission

   State the mission of the CRVS project.

10. Values

    List and describe values.

11. Strategic outcomes

    State the strategic outcomes (what you wish to achieve).

12. Strategic goals

    State long-term overall strategic goals (what will drive the strategy).

13. Strategic objectives

    This section covers the strategic objectives identified to achieve the strategic outcomes and goals.

14. Strategic intent

Summarize the strategic intent for each strategic objective in the short, medium, and long term.

15. Critical success factors

List and describe the critical success factors.

16. Strategic risks

List the five key risks that may affect realization of the strategic objectives and outline the mitigation strategy.

Strategic risk	Impact of risk on outcome	Risk management strategy
1.		
2.		
3.		
4.		
5.		

17. Resource considerations

- *Describe the funding environment and requirements to realize the strategic objectives.*
- *Describe the human resource environment and requirements to realize the strategic objectives.*
- *Describe the physical environment and requirements to realize the strategic objectives.*
- *Describe the technology environment and requirements to realize the strategic objectives.*

Section C: Strategy implementation and action plan

18. Purpose of the strategy implementation and action plan

19. Strategic objective and sub-objectives

Discuss the strategic intent in detail for each strategic objective.

State the sub-objectives under each strategic objective and responsible entity.

Strategic objective	Sub-objective statement	Entity Responsible
1.	1.1	
	1.2	
	1.3	
	1.4	

20. Five-year improvement plan

Outline interventions and projects on a five-year horizon.

Outline the changes and improvements that will drive the strategy in the next five years.

Sub-objective	Year 1	Year 2	Year 3	Year 4	Year 5
1.1					
1.2					
					.

21. Strategy map

Include the strategy map that summarizes the CRVS strategy.

22. Monitoring, reporting, and evaluation

Describe who will be monitored and reported on in the strategic plan and how this will be done. Outline when the plan will be reviewed and out comes evaluated.

23. Conclusion

Consolidation of the strategic action plan, for example:

· The central tenet of this plan is...

· The overall strategic intent is to...

· Critical to the success of this plan is ...

This strategic action plan needs to be supported by the work program of the various agencies, which outlines the outputs and milestones toward achieving the vision and mission.

Annex N: Overview of Stage 3 activities

Implement, monitor, and evaluate the national CRVS strategic action plan implementation and performance

Activity	Responsible	Tasks	Deliverables
Mobilize resources for implementing the national CRVS action plan	Technical Working Group (TWG), National Core Team (NCT)	Develop a resource mobilization strategy Develop a resource mobilization action plan Implement the resource mobilization action plan	Resource mobilization strategy Resource mobilization action plan Resources for implementing the plan
Prepare for implementation	TWG, NCT	Determine organizational structure and process for implementing, evaluating, and communicating the work Review and refine the national CRVS action plan Prepare for monitoring and evaluation of the implementation progress and results Develop a change management plan	Refined national CRVS action plan Monitoring and evaluation plan Change management plan
Implement the action plan and roll out new CRVS processes	TWG, subcommittee, and leaders of the implementation teams	Implement activities of each action area Monitor and evaluate the progress	
Monitor and evaluate implementation results	TWG, subcommittee	Implement the monitoring and evaluation system Monitor and evaluate the results of implementing the action plan	TBD