



# **Multi-country SRS Planning and Experience-Sharing Conference**

**Going Far Together**

 **2 - 5 June, 2025**

 **Ramada Resort by Wyndham**

# Agenda

## Day 3, June 4 – How to develop an SRS Design and Outings

8:30am	<ul style="list-style-type: none"><li>Optional Session: In depth discussion of VIVA digital solutions for data managers and IT teams</li></ul>
9-10:30am	<ul style="list-style-type: none"><li>Topic 5: Developing a plan for defining SRS design- what comes next? Revisit situational assessment, design and implementation plan; decide what activities are needed to complete SRS design</li></ul>
10:30-11	<ul style="list-style-type: none"><li>Break</li></ul>
11-12pm	<ul style="list-style-type: none"><li>Situational assessment presentations and report out on learning- 3 countries, 15 min each, 15 min for questions</li></ul>
12-1pm	<ul style="list-style-type: none"><li>Situational assessment presentations and report out on learnings- 3 countries, 15 min each, 15 min for questions</li></ul>
1-2pm	<ul style="list-style-type: none"><li>Lunch</li></ul>
2-6 pm	<p>Optional Outings</p> <ul style="list-style-type: none"><li>Ifakara Health Institute field site visit in Bagamoyo</li><li>Gift shopping for traditional crafts in Dar es Salaam</li></ul>

## Topic 5: Developing a plan for defining an SRS design

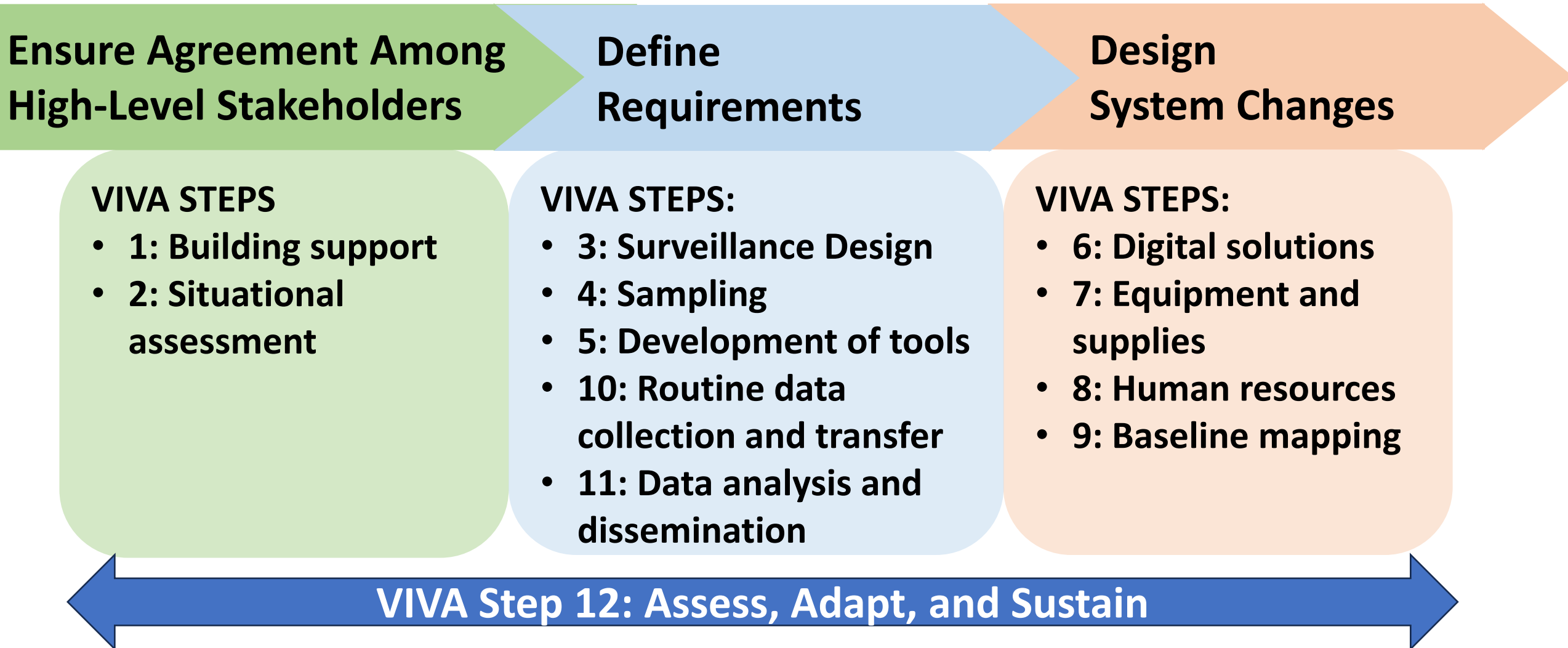


A close-up photograph of a person's hands holding a large, round, blue beaded basket. The basket is decorated with intricate patterns of yellow, orange, and red beads. The person is wearing a colorful, patterned garment. The background is blurred, showing more of the same patterned fabric.

Developing a plan for defining SRS  
design: what comes next?

*Collaborative Requirements Development*

# *Collaborative Requirements Development and the Vital Insights for Vital Action (VIVA) 12-Step Guide*





# Ensure Agreement Among High-Level Stakeholders

## WHAT

### **VIVA STEP 1 Building support**

*The first phase of CRD process >>>*

### **VIVA STEP 2 Situational assessment**

- *Engaging inter-agency teams in assessment process can increase shared understanding of the issues and opportunities*
- *Provides information to:*
  - *Describe the processes, persona, and tasks*
  - *Inform the requirements*

## HOW

### **Identify Key Leaders**

- Representing all potential data consumers
- Representing ministries and programs with a stake
- Who have authority to enable (or block) SRS implementation
- Who define shared objectives & mutual benefits

### **Question to be answered:**

- What information is needed by whom, and what would they do if they had this information?

# Define Requirements

## WHAT

### **VIVA STEPS 3 & 4**

- Define core processes for integrated SRS, to inform requirements
- Driven by integrated vision
- Document requirements to translate design into implementation

### **VIVA STEPS 5 & 10**

Tools implement the processes supported by DAK personas

### **VIVA STEP 11**

Define data user needs (requirements) to inform data use plans

## HOW

### **Identify Data Sources**

- What data are needed to meet the information needs of SRS?
- Existing mortality data sources
- New data needed

### **Address Data Policy, Access, Needs**

- Who is owner or custodian?
- What policies/governance are required to make it accessible?
- Harmonize data standards
- Data/information flow
- Timeliness requirements
- Analysis/dissemination

# Design System Changes

## WHAT

### **VIVA STEPS 6 & 9**

Requirements for the processes to be implemented electronically defined in DAK

### **VIVA STEPS 7 & 8**

Systematically documenting requirements/processes informs budget needs and list of capabilities

## HOW

### **Systems/Platform**

- Digital solution? Yes or no
- Agree on platform(s)
- Data interoperability/exchange
- Hardware/software
- Comms/networking

### **Operating Procedures:**

- Define roles, access, security, confidentiality
- Assign responsible parties
- Operations manual

**VIVA Step 12: Assess, Adapt, and Sustain through DAK data quality assessment**



# End of Presentation



**Comments,  
Questions and  
Discussions**

# Topic 5: Five additional decisions for your design

## **1. Formative research to inform data collection, reporting process, and linkage/integration with CRVS**

- a) Based on your data collection strategy discuss the need for a formative research
- b) Outline the scope of the formative research (broadly)

## **2. Human resources: SRS management and implementation team**

- a) How will you staff the SRS?

## **3. Data tools**

- a) Identify tools that will be used for various types of data

## **4. Data system, digital solution and data flow**

- a) Develop a diagram for your data flow
- b) Discuss IT solution at each level and for each type of data

## **5. Ethical clearance**

- a) Discuss need for ethical clearance, what would be required and how to proceed

Break

# Country Presentations on Situational Assessments and Lessons Learned







# Mortality monitoring and cause of death determination in Ghana via a Sample Registration System (SRS)

## A Situational Analysis

Multi - Country SRS Planning and Experience Sharing Conference  
June 1-6, 2025 | Dar es Salam, Tanzania  
Presented by: Ayaga A Bawah, Ghana



Regional Institute  
for Population Studies



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# Ghana Technical Working Group

- Prof. Ayaga A. Bawah - Regional Institute for Population Studies, University of Ghana
- Dr. Wisdom Atiwoto - Ministry of Health, Ghana
- Dr. Lawrence Lartey - Ghana Health Service
- ★ • Dr. Adam Zakaria - Ghana Health Service, Public Health Division
- Mad. Sarah Woode - Ghana Statistical Service
- Mr. Kingsley Kwakye - Births and Deaths Registry, Ghana
- Mr. Daniel Azongo - Navrongo Health Research Centre, Ghana
- Williams Kwarah - Vital Strategies

# Country setting

- A lower-middle economy (World Bank) located in West Africa.
- It is divided into 16 regions and 261 districts, with approximately 32 million population, 57% living in urban locations.
- ★ • The life expectancy at birth is approximately 66 years.
- The completeness of death registration remains low at 39% as at 2023. CDR of 7/1,000 population.
- Recent amendments in law allows the decentralization of births and deaths registration mandated by the BDR to run the CRVS.

Ghana



# Significance of an SRS

- Health and wellbeing of a country is measured by mortality indicators.
- Accurate and timely data on the number and causes of death critical for determining burden of diseases.
- ★ • It is essential for identifying and detecting emerging health threats and adopt mitigation measures to address such threats.
- Helps to evaluate impact of interventions and provide evidence for priority-setting, policy-making, and monitoring of impact of scaled health programs and policies.
- Measure the effectiveness and impact of its health sector and disease control programs.



# The Challenge

- Existing systems do not adequately permit government to reliably and continuously collect and use mortality data in a timely manner at national and subnational levels.
- Death registration in the current form is limited in coverage – registration is below 40 percent in most cases.
- Routine data from health facilities is unrepresentative because it is only limited to deaths that occur in health facilities.
- Surveys and censuses do not produce data on a routine bases and often limited in scope.
- SRS could help harmonize existing systems and provide nationally representative data for planning.



# Vision Statement for an SRS

★ To establish a nationally representative data collection system that accurately captures quality mortality data, enabling the estimation of mortality rates across all ages, cause of death and all-cause mortality based on precise demographic denominators for public health action by 2030.

# Objectives of Situational Analysis

- To assess current situation in mortality data collection, reporting and actions in Ghana and identify existing gaps.
- SWOT analysis to assess existing systems, their strengths and weaknesses and how these could be leveraged as building blocks for SRS.
- Determine the specific requirements for the SRS implementation.
- Assess the funding landscape for the SRS implementation
- Develop recommendations for the SRS in Ghana.



# Methodology

- A mixed-methods approach
- Identification of relevant stakeholders and institutions.
- Desk review to gather relevant institutional reports and documents essential for assessing existing data systems and identifying critical gaps.
- Scoping review to systematically identify and analyze published literature on mortality data to deepen understanding of Ghana's readiness to implement an SRS.
- Interviews with selected stakeholders to gain insights into the current operational systems for generating mortality statistics.
- Areas assessed included
  - Governance and stakeholders
  - Current death registration systems and other sources of mortality data
  - Information systems
  - Funding landscape

# Methodology

- Descriptive statistics used to summarize key findings; results presented in tables and charts.
- Network analysis done to visualize the flow of mortality data among stakeholders and identify potential linkages for enhancing coordination and integration within the existing system.
- Conducted SWOT analysis to assess internal factors that may support or hinder the integration of an SRS within the current mortality data capturing framework.
- Funding landscape analysis was conducted to understand available funding opportunities and mechanisms.



# Findings - Governance and stakeholders

- Legal framework exists (*The Burials Ordinance of 1912 (Births, Deaths, and Burials Ordinance)*); revised **Registration of Births and Deaths Act, 2020 (Act 1027)**
  - ✓ Act mandates registration of deaths within 10 days of occurrence with a Medical Certificate of Cause of Death (MCCD)
  - ✓ Challenges with enforcement, due to religious, cultural, and financial constraints.
  - ✓ Although the MCCD is legally free, lack of clarity around its issuance often results in informal charges levied on bereaved families.
  - ✓ Shortage of medically trained pathologists, leading to delays in completion of death certification well beyond the mandated 10-day free registration window

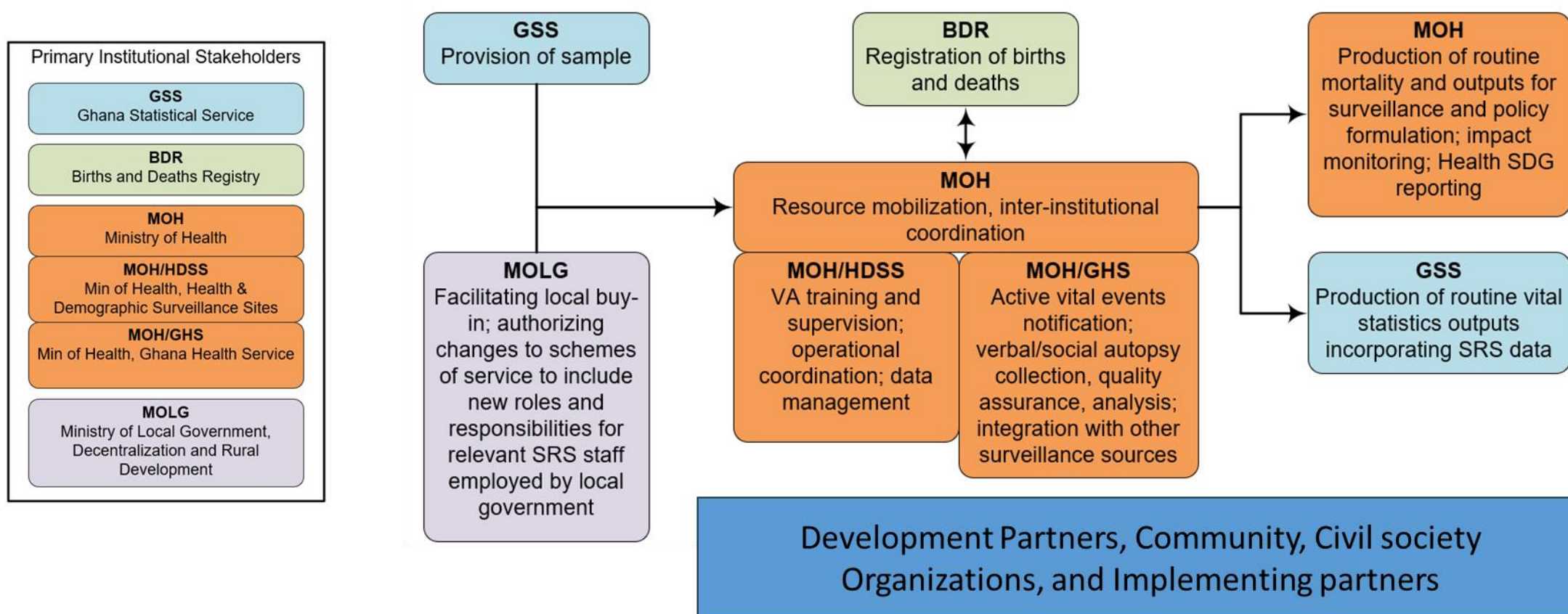
Key improvements include the **decentralization of the Births and Deaths Registry and digitisation of registration processes**



# Findings - Stakeholders

Several stakeholders identified as key actors who play crucial roles in the implementation of SRS in Ghana

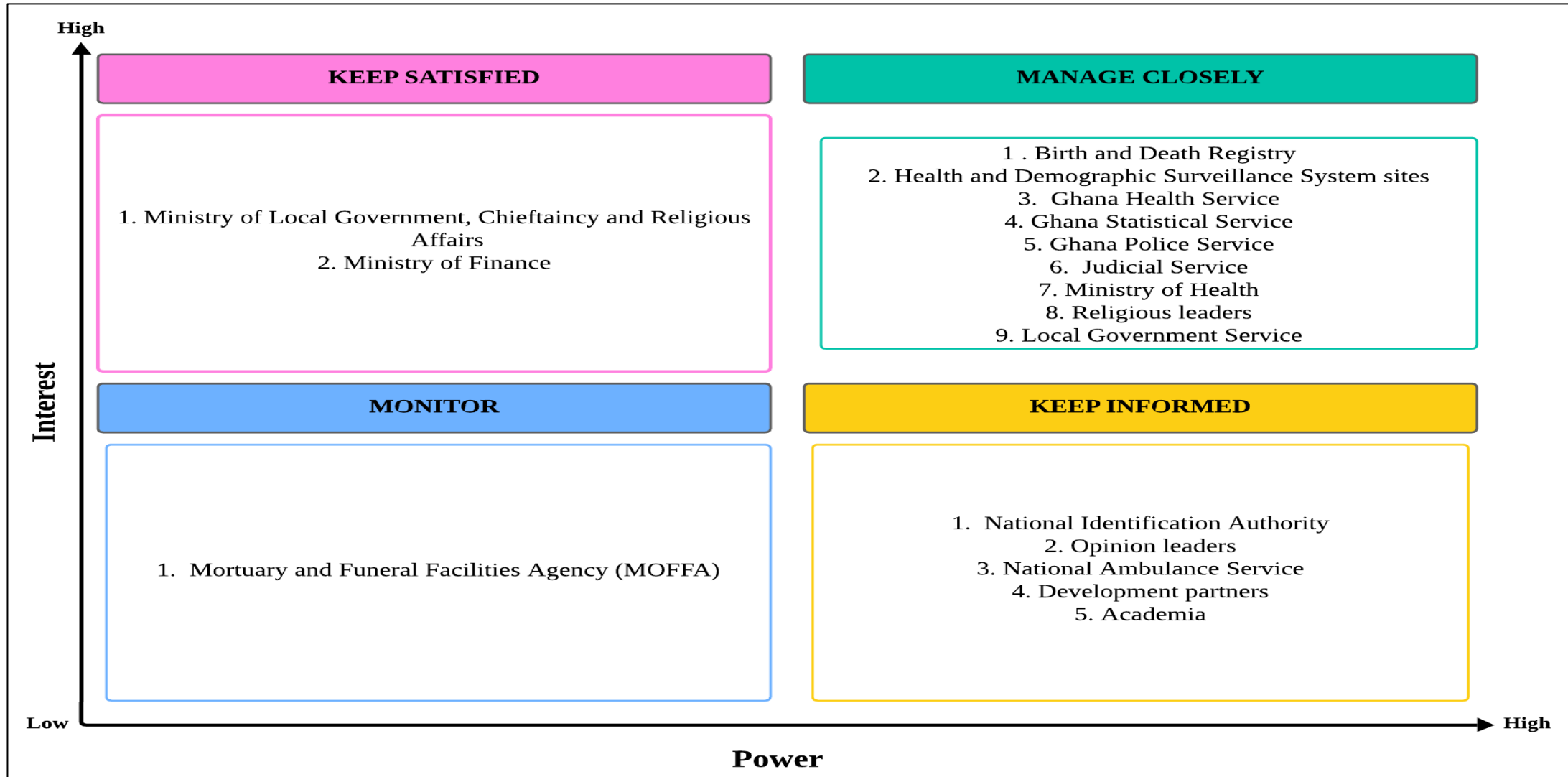
## Primary Stakeholders and Institutional Relationships





# Findings - Stakeholder Power Interest Matrix

To further understand the influence and involvement of various stakeholders in the integration of an SRS, a power-interest matrix was developed to determine their level of power (ability to influence the SRS process) and their level of interest.



# Findings - current death registration systems and other mortality data sources

## Births and Deaths Registry

- Collects data on registered deaths and compiles statistical reports to inform national planning and policy decisions.
- Collaborates with Ghana Statistical Service and Ghana Health Service to ensure accurate reporting of these vital statistics.
- Has a decentralized electronic registration system where deaths are reported to the District Registrar to initiate the process and data synced to a national database.
- Lack of functional notification system due to fragmented mortality data systems leading to under-registration of deaths and limited cause of death information







# Findings - current death registration systems and other mortality data sources

## Ghana Health Service

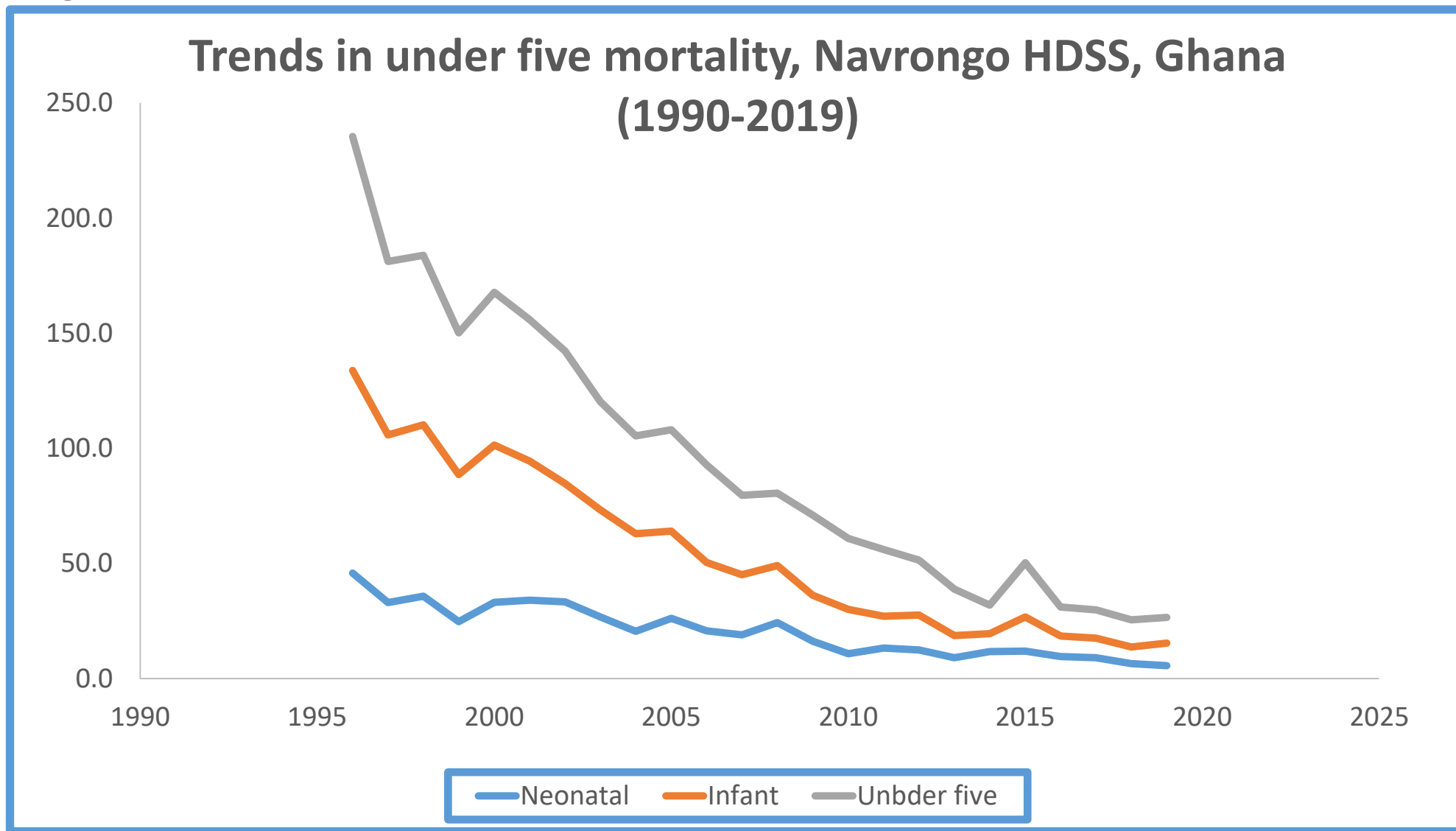
- Deaths registered in health facility are certified by a Doctor who assesses, completes and issues the medical certificate of cause of death.
- Where the cause of death is uncertain or sudden, further investigations may be required. This could involve:
  - ✓ Clinical audits to review the patient's medical records.
  - ✓ Post-mortem examinations (autopsies), especially if the death is unexplained or suspected to be due to unnatural causes.
  - ✓ Laboratory tests to confirm infections, toxicology reports, or underlying conditions.
- Hospitals report mortality data to the GHS DHIMS2 and COD platforms , which compiles institutional mortality statistics.
- Challenges such as incomplete death registration and limited autopsy practices can affect the accuracy of cause-of-death reporting.

# Findings - current death registration systems and other mortality data sources

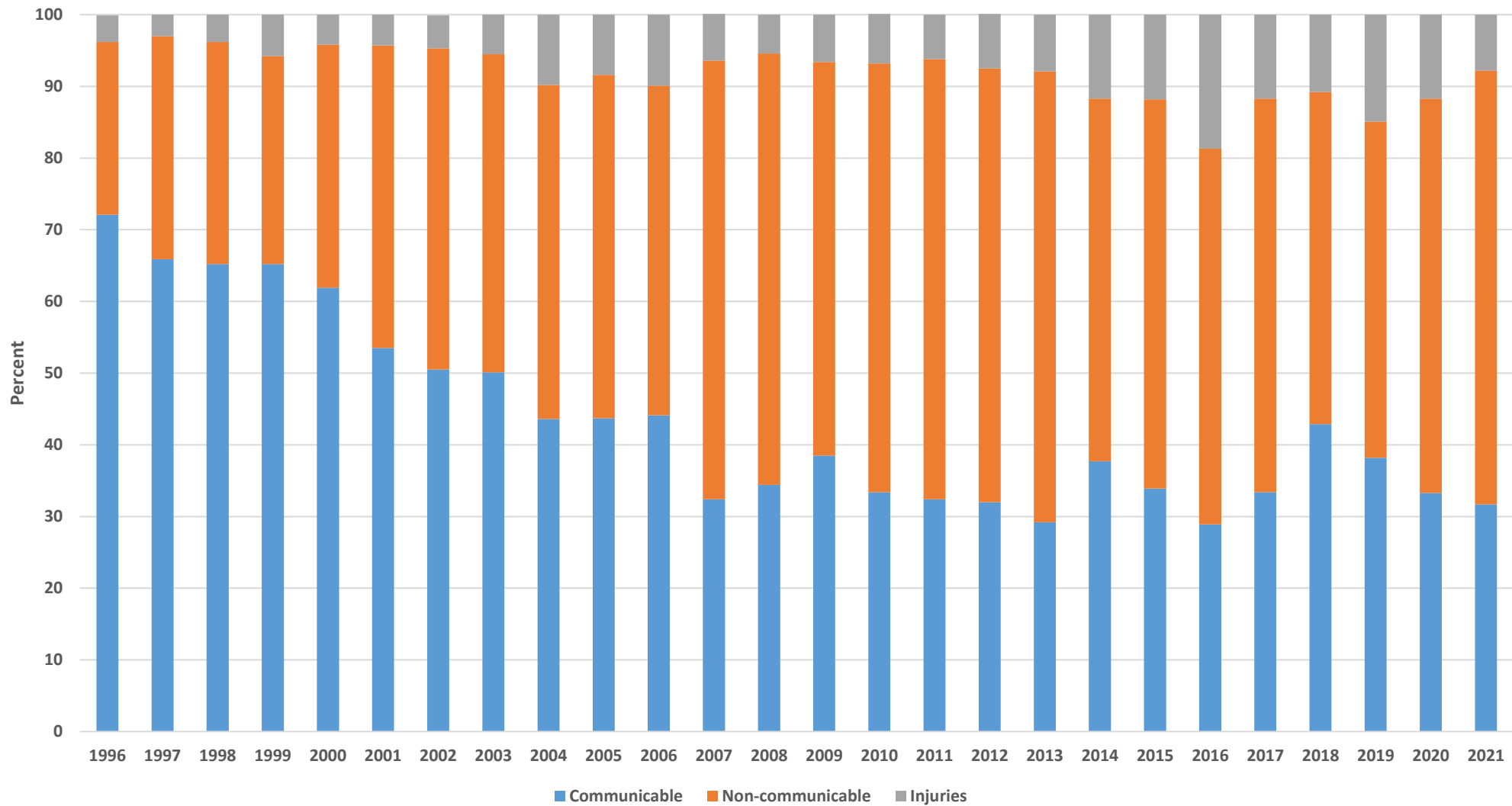
## Health and Demographic Surveillance Systems (HDSS)

- Currently, there are three HDSS sites in Ghana – northern, middle, and southern belts.
- All deaths recorded in the HDSS are followed up and a verbal autopsy (VA) is conducted to ascertain the possible cause of death. Kintampo HDSS is piloting MITS and collecting mortality data.
- The VA involves interviewing relatives, caregivers who were closely associated with the deceased person during the period leading to death.
- Different systems exist for coding or determining the cause of Death from the VA.
- There have been a transition from physician coding to automated systems of coding (**InterVA**, InSilicoVA and SmartVA).
- The VA tools currently used are the 2016 and 2022 WHO Verbal Autopsy tools.

# Findings - current death registration systems and other mortality data sources



# Findings - current death registration systems and other mortality data sources





# Findings - current death registration systems and other mortality data sources

## Ghana Statistical Service (GSS)

- The GSS records death statistics mainly through national censuses, household surveys, and administrative records.
- A key source is the Maternal Health Survey, which gathers mortality data by assessing household deaths, causes of death, and pregnancy-related mortality.
- GSS collaborates with the Births and Deaths Registry to compile official death registration statistics which provides insights into demographic trends, regional variations, and mortality rates across the country.
- GSS also works with health institutions and international partners to improve the accuracy and completeness of mortality data.

# Findings - current death registration systems and other mortality data sources

**Non-traditional sources:** Several non-traditional sources of mortality data exist.

- ***Community-Based Reporting:*** community leaders, religious institutions, and funeral homes often keep informal records of deaths within communities.
- ***Police and coroner reports through road traffic accidents and suicides/homicides:*** Public reports of deaths, especially in cases of accidents, epidemics, or disasters, can provide real-time insights into mortality trends.
- ***Mortuaries and Funeral Homes or Facilities:*** these death records are recorded mainly for operational purposes, therefore are not standardized and not integrated into national mortality databases.
- ***Academic and Research Institutions:*** these institutions other than the HDSS sites conduct studies on mortality patterns, through surveys and verbal autopsy methods. data collected do not often make their way into official statistics.

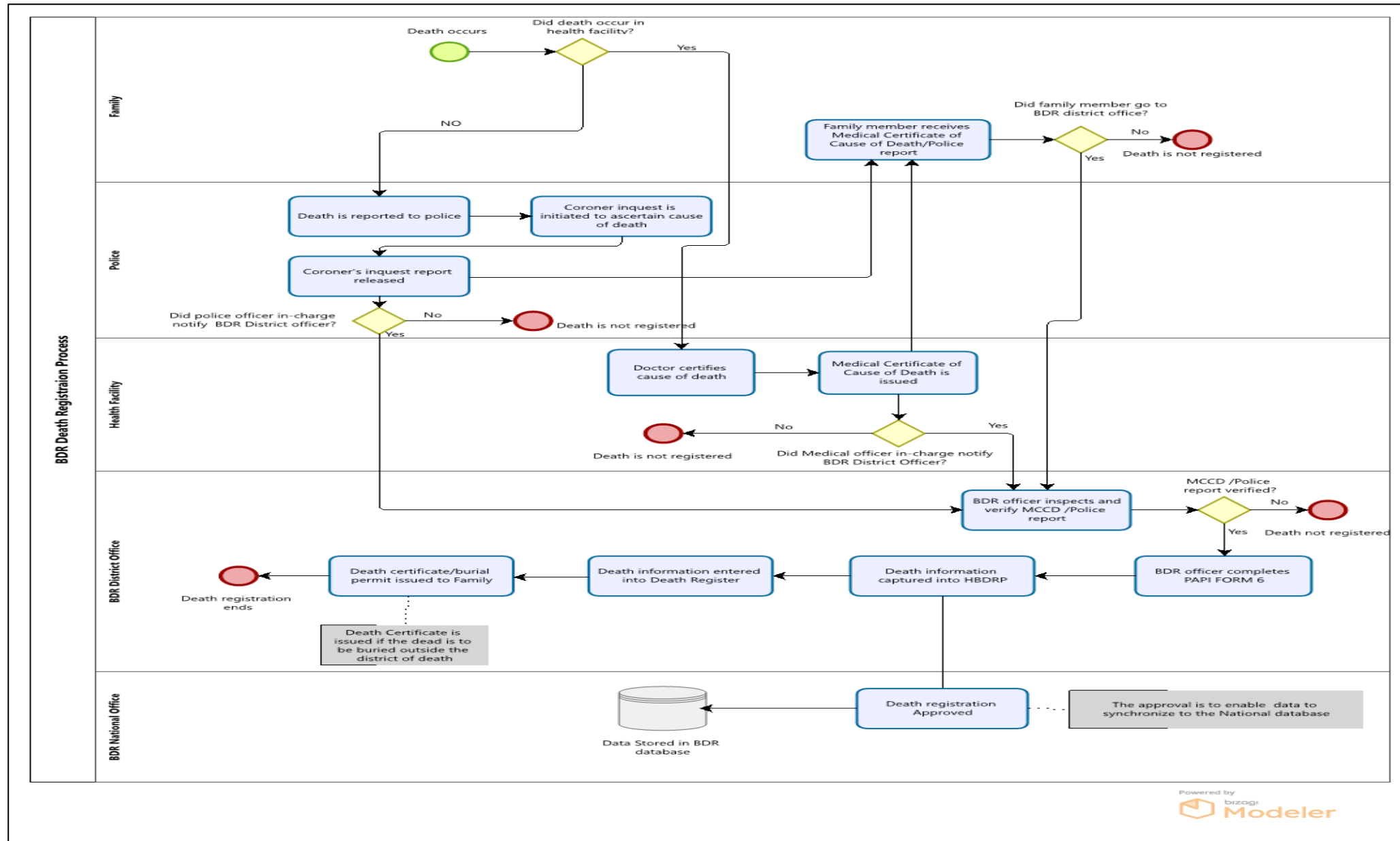
***\*Strengthening institutional coordination can help incorporate these non-traditional data sources into a more comprehensive mortality tracking framework.***



# Findings - Information system

- Death registration is passive in Ghana.
  - Persons and institutions expected to notify the BDR.
- The system identifies two streams of events:-
  1. Community deaths and facility-based deaths.
    - Community deaths reporting initiated by relative or informant of deceased.
    - Police or coroner reports written and possible cause of death determined.
    - BDR registers death.
  2. Facility death reporting
    - A doctor certifies the cause of death and issues a Medical Certificate of Cause of Death (MCCD).
    - MCCD is sent to the BDR to complete death registration.

# Findings - Current Registration process flow map at BDR



## Findings - Funding landscape assessment

- Ghana's readiness to implement an SRS is hinged on understanding the funding landscape that can support its development, operationalization, and long-term sustainability.
- ★ • Ghana potentially has mixed sources of funding for an SRS implementation where resources can be leverage both internally and externally.
- There is a strong possibility of pooling resources from domestic and external sources using various funding mechanisms especially co-funding models.

# Findings - Funding landscape

## Key stakeholders

### Key government bodies involved include:

- Ministry of Health
- Ministry of Finance
- Ministry of Local Government, Chieftaincy and Religious Affairs

### Development partners and donors:

- The World Bank,
- World Health Organization (WHO),
- United Nations Children's Fund (UNICEF),
- The Global Fund,
- USG (USAID, CDC through PEPFAR and Global Health Security),
- CIDA/Global Affairs Canada,
- Global Financial Facility (GFF),
- UNAIDS,
- UNFA,
- UNDP,
- Bloomberg Philanthropies, and
- Bill and Melinda Gates Foundation (BMGF)

## Current and potential funding sources

### Domestic

- Leverage respective ministries budgetary allocations for surveillance activities and strengthening CRVS system.

### External sources

- Engage development partners to expand support for surveillance activities to include mortality surveillance
- .Engage partners who historically supported Demographic and Health Surveys (e.g. UN agencies, World bank, US government).
- Other bilateral, multilateral and foundations including WHO, CIDA/Global Affairs Canada, Bill & Melinda Gates Foundation, and Bloomberg Philanthropies D4H. and US Government Global Health Security, PEPFAR and PMI activities.



# Findings: Funding landscape

## Strategic priorities and alignment

- SRS supports the goals of the National Health Sector Strategy, which emphasizes the importance of digital transformation, real-time data availability, and improved mortality surveillance.
  - Ghana included mortality surveillance into the Medium-Term Development Plan.
- SRS supports Sustainable Development Goal (SDG) target 16.9, which promotes legal identity for all, including birth registration.
- Many development partners are strategically aligned with these SDGs in Ghana.

## Funding gaps and opportunities

- Technology infrastructure – mobile and computer systems, and data storage infrastructure.
- Staff capacity building low.
- Community engagement is underfunded despite being essential for improving awareness and uptake of civil registration services.
- Opportunities to pool resources through effective coordination; and ensuring SRS complements and strengthen other digital health systems and CRVS modernization programs.



# Findings: SWOT Analysis

## Strengths

- Favorable Legal Policy Environment
- Existence of Institutions mandated to register deaths
- HDSS Sites providing leadership and technical support.
- Availability of diverse mortality data sources.
- Nationwide coverage of BDR offices.
- Expertise exists in country

## Weakness

- Overdependence on development Partner/Donor Funding
- Poor death registration coverage, currently at about 39%.
- Lack of integration of parallel data collection systems, weak notification systems, heavily paper-based systems.
- Public apathy to register deaths, especially in rural areas.
- Cultural and physical barriers.
- Institutional bottlenecks – limited MCCD, penalties for late death registration, weak enforcement of burial laws.





## Opportunities

- Existence of National Identification System.
- High mobile phone and internet penetration presents opportunities for death notifications.
- Political commitment to achieving 80% coverage of death registration under SDG 17.19.2.
- Ghana's Development Partners' strong commitment towards the CRVS and data use for decision making.
- Existence of data exchange platform.
- Existence of functional health information platforms like DHIMS and LHIMS.

## Threats

- Political will and funding volatility due to shifts in political priorities and change in government.
- Diminishing donor support in the midst of competing priorities.
- Low demand creation especially in rural areas.
- Some communities do not report child deaths due to stigma or cultural norms.
- Pockets of conflicts in some geographical areas could pose a threat to registration.
- Low internet connectivity in rural communities could negatively affect digital operating systems for registration.

# System design considerations

## 1. Start with a linkage to CRVS with the ultimate aim of full integration. Full integration would require

- Legislative instrument to establish the required legal requires.
- This will be costly and time constraints.
- Existing legislation for data sharing which will be leveraged on.

## 2. Smallest geographic units: Enumeration Area

- Existence of a geographic unit which is the enumeration areas
- The EA is what is used for both census and other surveys in the country.
- There is experience and skill in using the EA
- Use of a two-level stratification, that is at national and regional to give estimates at these levels
- \*GSS is planning to move to grid system so we may explore that option also



# System design considerations

## 3. Statistical domains relevant for Ghana

- The statistical domain or unit of analysis will be national and subnational (regional)
- We will sample clusters (EAs) at the regional levels
- Allows for political commitment and appreciation of problems and information disseminated
- Actions are mostly administered through administrative structures and this allows ease of implementation

## 4. Minimum data

- Births and pregnancies
- Deaths by age
- Cause of death
- Population by age and sex
- Rural/urban considerations
- SES

# System design considerations

## 5. Data collection strategy

- Leverage on existing community health nurses and volunteers working in communities for notification and registration.
- Use CHO/CHN to conduct VA interviews.
- Collaborate with local government authorities to leverage other existing structures.
- This allows to facilitate active search of deaths for verbal autopsies to be conducted.

## 6. Assessment for complete

- To undertake surveys every two years.
- To compare data with HDSS site

## 7. Phased Implementation

- Due to operational and initial cost implications, the phased approach has been recommended to learn lessons for expansion to include all regions.
- Initial pilot to test protocol, tools, and digital platforms.
- Phase 1 implemented in 6 northern regions and Western North (USAID survey clusters).
- Phase 2 nationwide scale-up.

# System design considerations

## 8. Governance Structure

- Ghana to consider the Adoption of ACDC mortality surveillance governance recommended structure.
- Steering committee at national level to offer oversight(relevant stakeholders).
- Technical working group to offer technical assistance.
- Administrative governance levels from district to national.

# Conclusions

- Ghana has the capacity and potential to successfully implement an SRS.
- Though challenges exist, effective and efficient stakeholder coordination, collaboration and ensuring clear roles and responsibilities are important success factors.
- Leverage technology and transition paper-based systems to electronic platforms.
- Religious and cultural factors need collective and sustained efforts at community through to the national level.
- Government needs to improve and sustain human resource capacity and address logistical needs.
- Sustained domestic resource mobilization and priority setting must be seen as a continuous effort throughout SRS implementation.



# Next Steps

- Meeting to brief relevant stakeholders.
- Identify stakeholders for the governance structure setup (steering committee, administrative structure set up).
- ★ • Hold TWG meetings to develop working plans for the development of design protocols.
- Development of design protocols.
- Stakeholder meeting to review developed design protocol.

# Acknowledgement



BILL & MELINDA  
GATES *foundation*



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**USAID**  
FROM THE AMERICAN PEOPLE



*Thank you*





# Mortality Surveillance Situational Assessment Report: Kenya

4<sup>th</sup> June 2025



# Administrative Profile

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Republic, with national and devolved (County) governance structure – Constitution of Kenya 2010.

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The National Government performs most governance functions (Security, Education, Health Policy, Level 6); while Devolved units, Composed of 47 counties, perform functions of local governance.

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The counties are further subdivided into 389 sub-counties, 993 divisions, 4,032 locations, and 9,128 sub-locations as of 2024.

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# Health Service Delivery Structure



## Tier 1: Community Health Services

- Services at the household/village level via Community Units (CUs)
- 1 CHP supports 20 households supervised by CHA



## Tier 2: Primary Care Services

- Level II (Dispensaries): Basic care, immunizations, antenatal, first-aid
- Level III (Health Centers): Diagnostics, common illness treatment, maternal & child health



## Tier 3: County Referral Services

- Level IV & V facilities: Specialized services, surgeries, complex illness management



## Tier 4: National Referral Services

- Level VI facilities: Tertiary care by sub-specialists for highly complex conditions



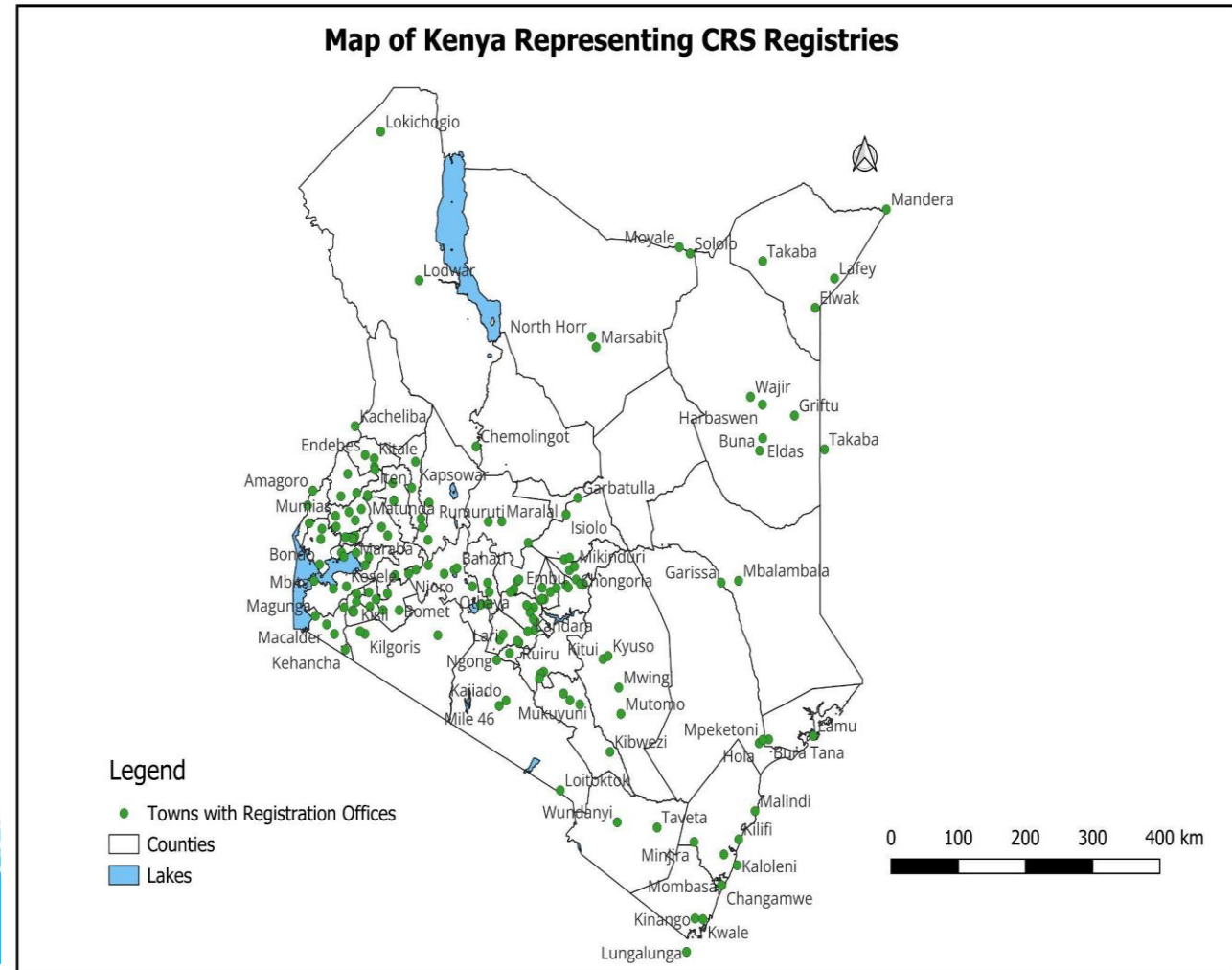
REPUBLIC OF KENYA

# Civil Registration Services

- CRVS registers, analyses and disseminates data on vital statistics
- The civil registration services in Kenya is present in all counties
- There are 167 operational sub-county CRS offices
- Birth registration completeness - 77%
- Death registration completeness - 45%



(KVSIR, 2023)





# Mortality surveillance systems: KHIS

- Monthly aggregate death data
- IDSR: Weekly cause-specific mortality data
  - Published in weekly epidemiological bulletins
- KHIS tracker – morbidity and mortality data



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# Electronic Community Health Information System (e-CHIS)

- Community-level data collection tool
- Tracks service delivery, follow-up
- Supports supervision and reporting
- Utilised by the community health promoters (CHPs)
  - Household Registration
  - Household member registration
  - Muting and Death Reporting
  - Event-based surveillance



# Civil Registration Services System

- There exists a CRVS System - Digitalisation is ongoing
- The birth certification module is complete
  - Now assigning UPI numbers as it is integrated with the National Registration Bureau and IPRS databases
  - Currently implemented at Nairobi CRS offices
- Death registration module – Establishment ongoing



# Situational assessment



# Methodology of the Assessment

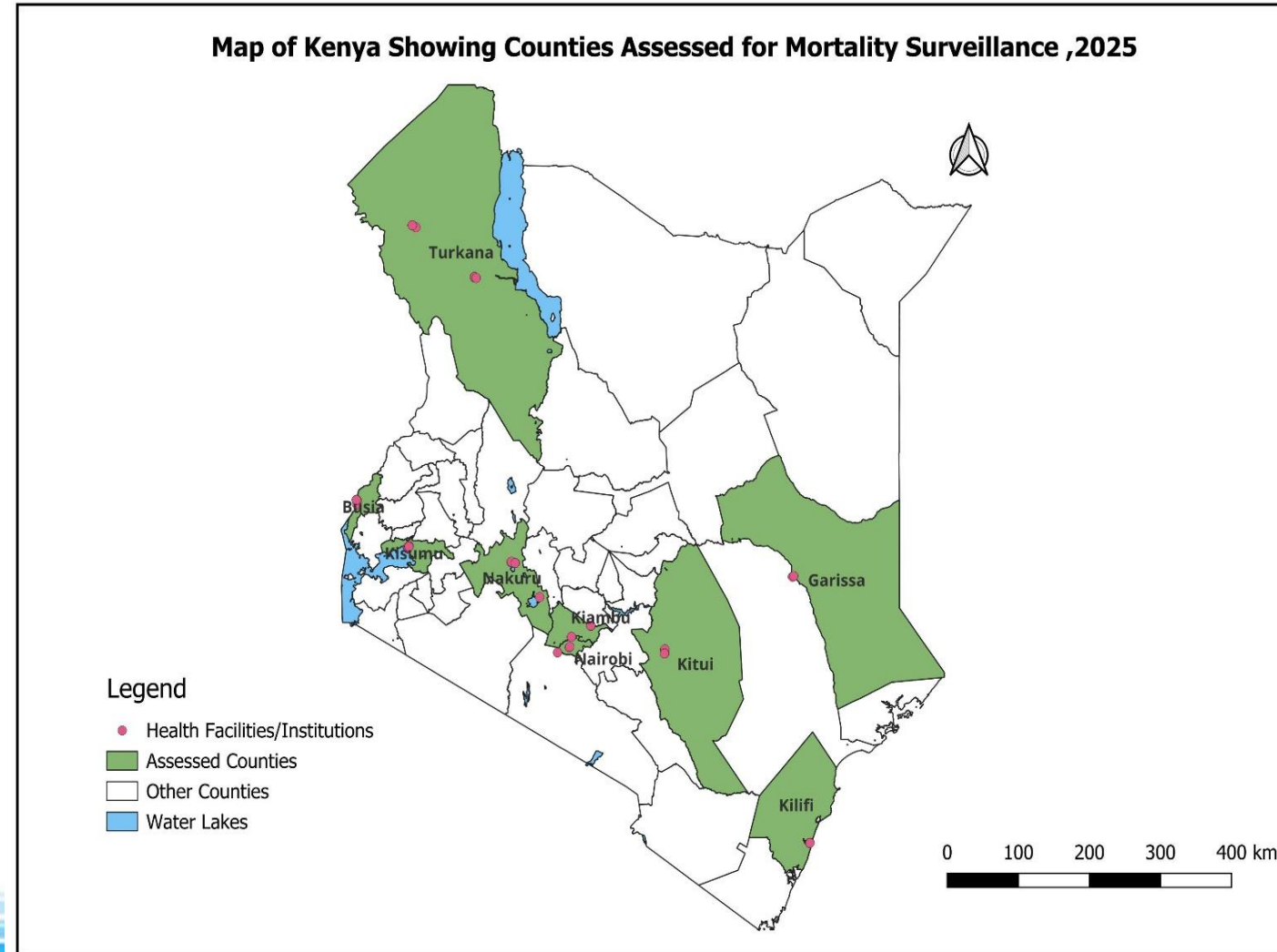
- Desk Review
  - Policies, frameworks, and business process mapping
- Stakeholder consultations
- Field Visits
  - On-site evaluation of mortality surveillance practices
- Tools
  - Semi-structured interview guides on Kobo Collect
  - Interviews were recorded using tablets
  - Key data collection forms catalogued through photographs





# Field visits: Selected Counties

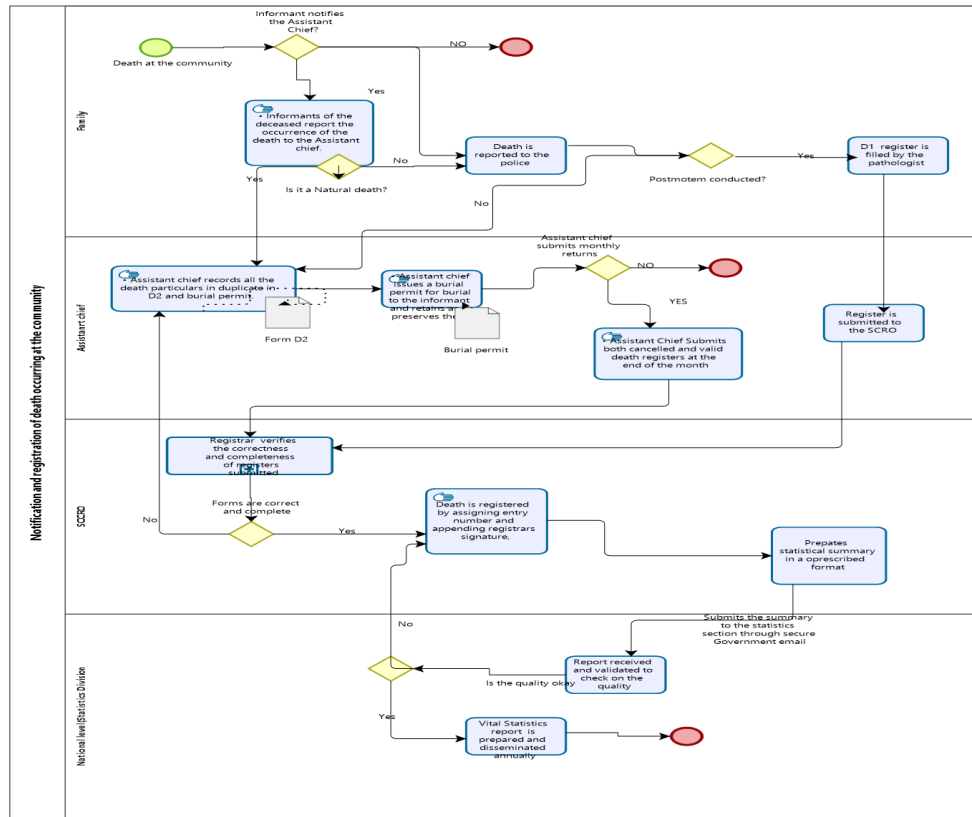
County	Rationale
Turkana	ASAL, Refugee population (Kakuma Refugee Camp)
Nakuru	Urban population, Rift Valley region
Busia	Cross-border population
Kisumu	Experience with CHAMPS/HDSS
Garissa	ASAL, Islamic population
Kitui	ASAL, Eastern region, rural population, VA pilot site
Kilifi	Experience with mortality surveillance/HDSS
Kiambu	Part of Nairobi metropolitan, urban population
Nairobi	Urban population, burial site (Langata cemetery)



# Legal & Policy Framework for Mortality Surveillance & SRS

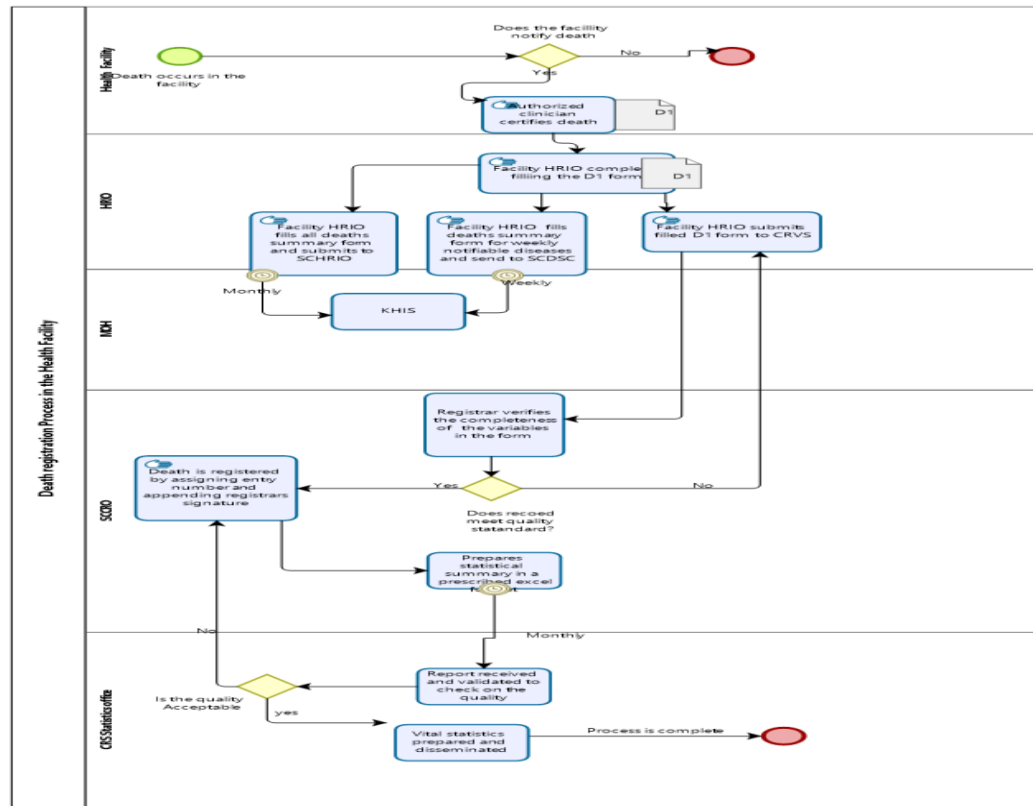
Category	Framework/Act	Purpose	Relevance to SRS
Global & Regional	SDG 3.1, Africa CDC Mortality Surveillance Framework	Improve health outcomes, reduce maternal mortality	Outlines global/regional mandates and offering technical support
National	Birth & Death Registration Act, Digital Health Act (2023)	Birth and death registration, support data systems	Statutory backing for mortality data collection
Health Sector Policies	Kenya Community Health Policy (2020-2030)	Guide on provision of community health services for UHC	Leveraging on the community health service providers to capture vital events

# Civil registration for community deaths



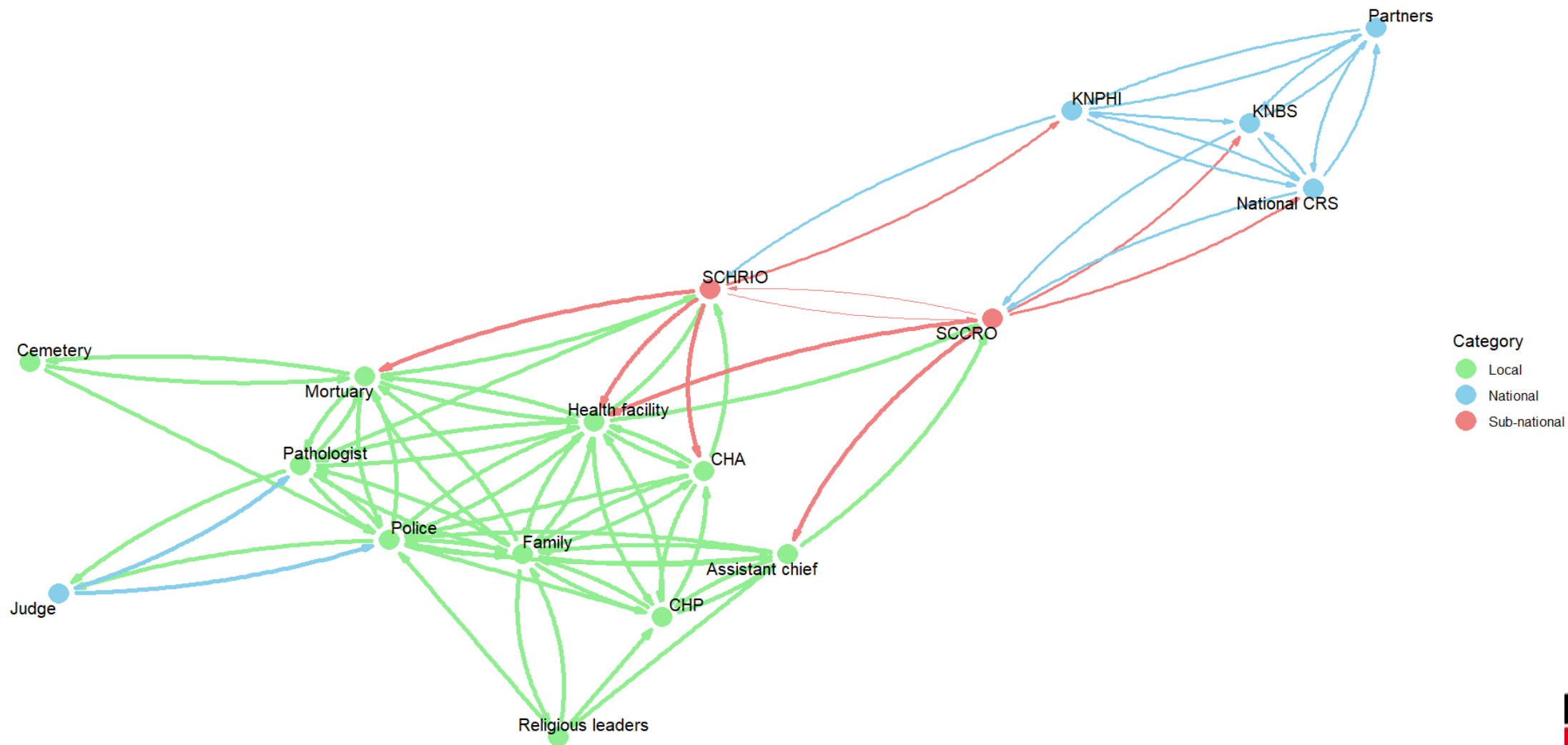
- Family is the starting point for the registration process
- Assistant chief as registration assistants
- Lay reporting of CoD
- Form D2 used for notification of death(paper-based)
- Submitted to CRVS office for completion of registration

# Civil registration for facility deaths



- Death ascertainment done by medical officer of health
- Form D1 filled by HRIO
- Submitted to sub-county civil registrar for completion of registration
- Copy sent to the national CRVS office

# Information network analysis





# Case study- Turkana county(Refugee population)

- Kakuma Refugee camp- served by unit heads and reporting to the area chief (in the host community)
- Socio-cultural factors hindering the reporting of community deaths(fear of death, no benefit from death registr)
- Burials are done at an established cemetery within the camp
- **Best practice-** Bi-weekly mortality audits for all deaths at Lodwar County Referral Hospital





# Summary

## System fragmentation

- Mortality data is fragmented across several institutions
- Parallel systems with limited integration

## Death Registration Coverage

- Coverage remains low in some regions e.g. in ASAL areas
- Infrastructural challenges hence delayed reporting







# Ct....

## Cause of Death Data

- Limited implementation of verbal autopsy
- Low-quality MCCoD data

## Funding and resource allocation

- Mortality surveillance not prioritized at all levels across institutions
- No sustainability plan for Mortality Surveillance

## Policy and legal frameworks

- Existing policies and laws governing collection of mortality eg CAP 149
- Limited enforcement





# Lessons learnt

## Situational Assessment

- Need for a government-led initiative for ownership and sustainability
- Interoperability of mortality systems is important for surveillance
- Value of multi-sectoral collaboration

## SRS Conference

- Need for integration of mortality surveillance systems
- SRS and MOH are viable structures for improving CRS data completeness
- Governance structures for SRS should be properly instituted, and roles clearly outlined





# Next Steps

Review SRS governance structure

Develop SRS samples

Define SRS system requirements

Develop a costed strategic action plan

## Action photos



Stakeholder engagement meeting in Naivasha



Situational Assessment team at Nakuru County Civil Registrar's office



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# Acknowledgement



Ministry of Health

Gates Foundation



**Thank You!**



Mali



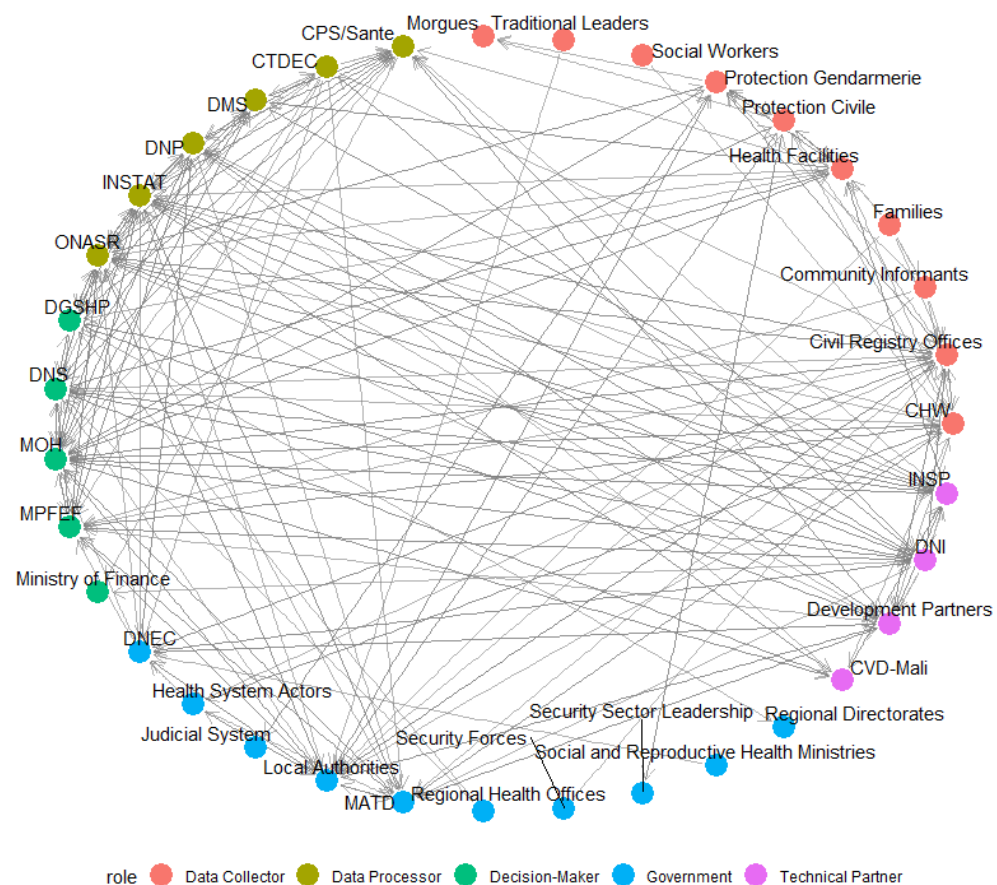
# *Toward Integrated Mortality Surveillance: Lessons from Mali's SRS Planning Initiative*

*Vers une surveillance intégrée de la mortalité : enseignements de l'initiative de planification du SRS au Mali*



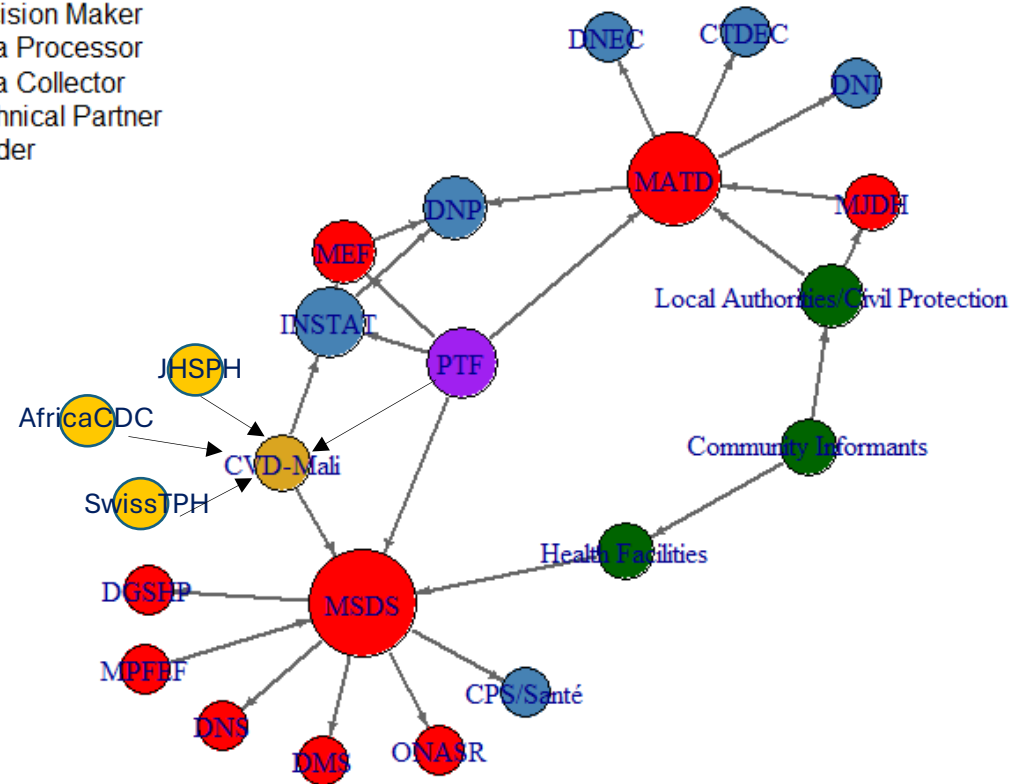
# Stakeholder Mapping Exercise, (first draft)

CRVS/SRS Stakeholder Network - Circular Layout

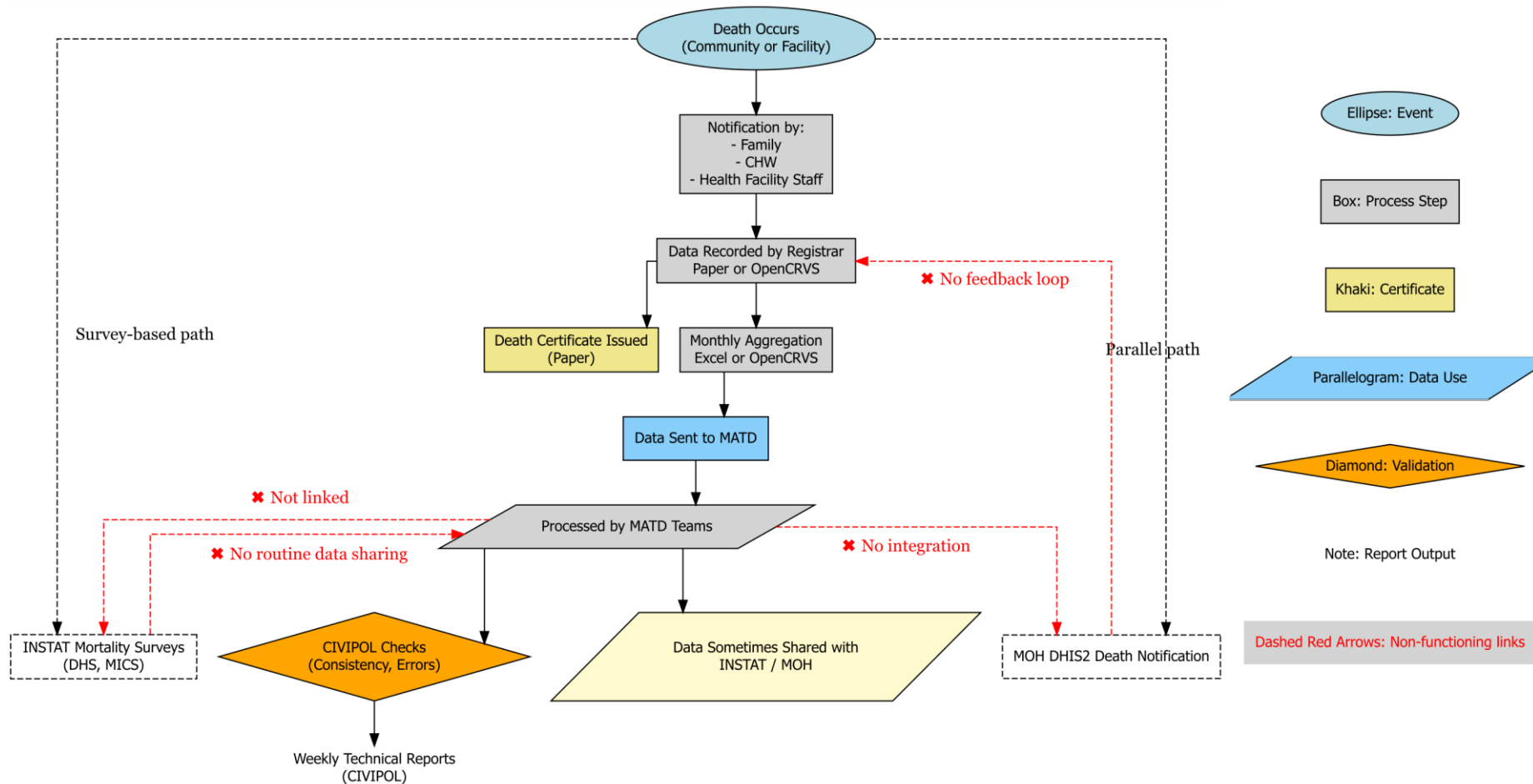


# Stakeholder Mapping Exercise, (getting there)

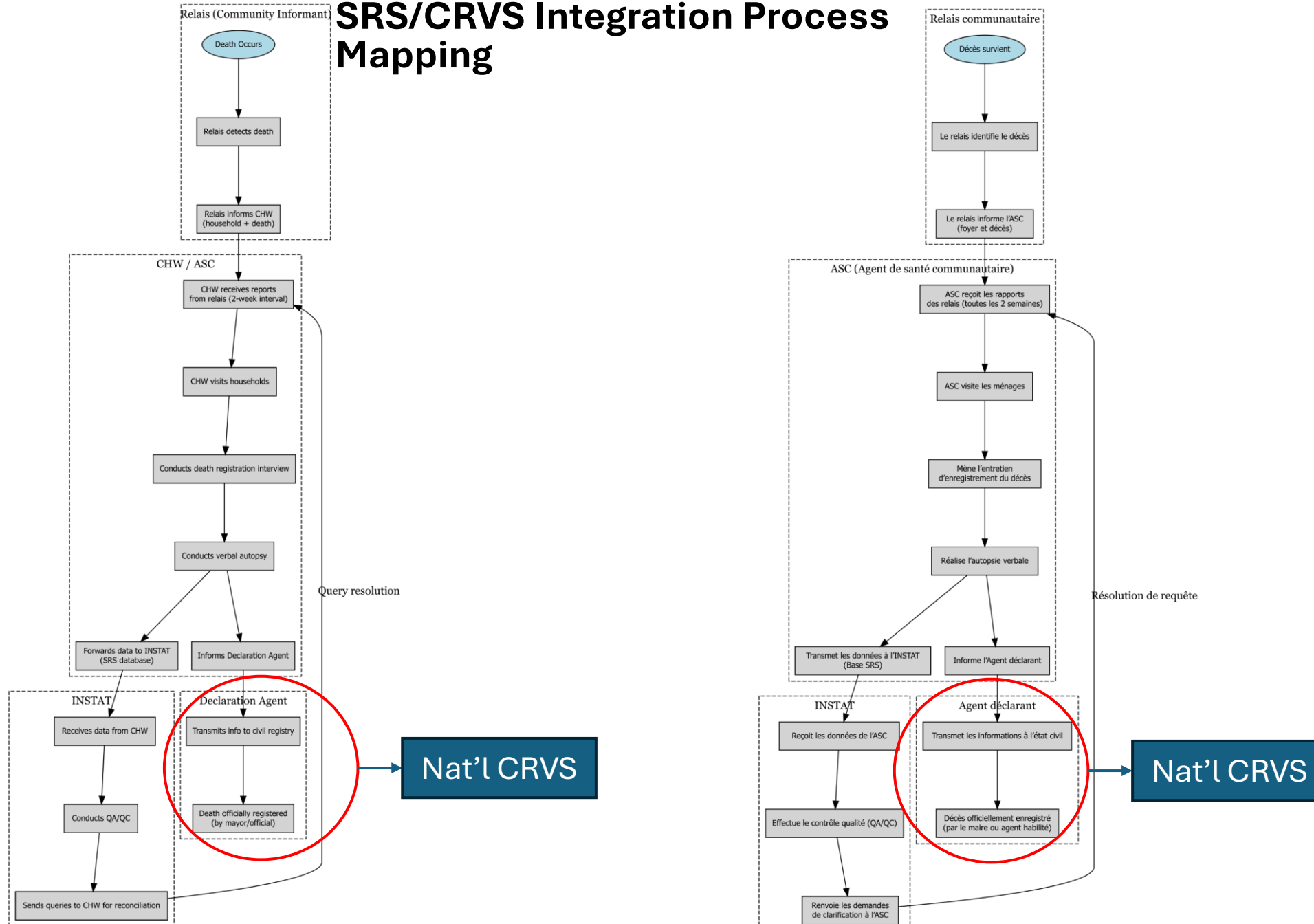
- Stakeholder Role
- Decision Maker
  - Data Processor
  - Data Collector
  - Technical Partner
  - Funder



# Process Mapping Exercise



# SRS/CRVS Integration Process Mapping



## What are we going to do when we go home?

- Distill all information and exercises into reference documents
- Decide the high-level KEY stakeholders to invite to decide additional items on SRS mortality registration tool
- Calculate workload for reporting structure actors
- Plan in-person meeting in Bamako to have discussions on protocol

## Que va-t-on faire quand on rentrera à la maison ?

- Distiller toutes les informations et exercices dans des documents de référence
- Déterminer les parties prenantes CLÉS de haut niveau à inviter pour décider des éléments supplémentaires de l'outil d'enregistrement des décès dans le cadre du SRS.
- Calculer la charge de travail des acteurs de la structure de rapportage
- Planifier une réunion en présentiel à Bamako pour discuter du protocole

Additional remarks

Commentaires additionnels



## SRS Vision

The Sample Registration System (SRS) in Mali aims to deliver high-quality, **timely**, and **actionable** all-cause and cause-specific mortality data for **all ages** at national and subnational levels by **2030**. Designed to be **digital**, **interoperable**, and **linked with the CRVS** and other national health systems, the SRS will be **locally owned** and resilient, enabling **early detection** of public health threats and **informing effective policy and planning**. The target users of the SRS system in Mali include government entities, particularly the Ministry of Health and Social Development, including national and local health authorities, policy makers, planners, and other relevant stakeholders. Data generated by the SRS will **drive evidence-based interventions to reduce mortality** and improve the health and welfare of all Malians.

## Vision du Système d'Enregistrement par Sondage (SRS)

Le Système d'Enregistrement par Sondage (SRS) au Mali vise à fournir, d'ici **2030**, des données de mortalité toutes causes confondues et par cause spécifiques, de haute qualité, **en temps opportun** et **exploitables**, pour **tous les âges**, aux niveaux national et infranational. Conçu pour être **numérique**, **interopérable** et **connecté à l'état civil (CRVS)** ainsi qu'aux autres systèmes de santé nationaux, le SRS sera **localement géré** et résilient, permettant la **détection précoce** des menaces pour la santé publique et éclairant **l'élaboration de politiques et de plans efficaces**.

Les utilisateurs cibles du système SRS au Mali incluent les entités gouvernementales, en particulier le Ministère de la Santé et du Développement Social, y compris les autorités sanitaires nationales et locales, les décideurs politiques, les planificateurs et d'autres parties prenantes concernées. Les données générées par le SRS permettront de **guider des interventions fondées sur des preuves pour réduire la mortalité** et améliorer la santé et le bien-être de tous les Maliens.



**Merci!**



Pakistan



# **SRS -Situational Assessment- Pakistan**

Dr Faiza Bashir

Research Director NIH

# Country Context



Indicator	Value
Population	Male: 124,324,406 Female: 117,154,694 Total: 241,479,100
WHO Region	Eastern Mediterranean
World Bank Income Group	Lower-middle income
Administrative Structure (# provinces, # districts)	4 Provinces, 2 Autonomous territories (AJK & GB), 1 federal territory, 158 districts
Life Expectancy at Birth	Male: 64 years Female: 66 years Avg: 65 years
Crude Death Rate	6.8/1000 population
Completeness of Death Registration	~58%



# Why SRS-Pakistan?

## Population & Mandates

5th most populous  
deaths outside healthcare  
limited community buy-in  
overlapping mandates

## SDG Goals

100% birth and 80% death  
registration;

currently at 58% Vs Census  
with no timelines

## Way Forward

SRS is a practical interim  
solution for enhancing  
registration and CoD

## System Gaps

coordination between  
systems,  
low coverage,  
under-reporting,  
inadequate legal framework

## Reform Efforts

CRVS policy (2020),  
Digital Birth Registration  
Verbal Autopsy pilots





# Planning phase objectives



**Phase 1: Stakeholder  
Engagement & Situational  
Assessment**



**Phase 2: Process Mapping &  
Proof of Concept (PoC)**



**Phase 3: Costed  
Implementation Plan**

# METHODOLOGY



**Mixed-Methods Approach:** Desk review + 6 months of stakeholder interviews

**National Coverage:** Interviews in all 4 provinces and 3 territories

**Structured Tools:** Used standardized interview guides (Forms 1.1, 1.2, 1.3)

**Diverse Respondents:** Federal ministries, health departments, local authorities, graveyards, CRVS

**Field Visits:** LHWs, and graveyards, union council administrations

# DESK REVIEW

1

## **Ongoing Efforts**

A lot of data points  
Many partner organizations  
Systematic approach missing  
Many pilots

2

## **Disintegrated Data**

facility-based, focusing on counts and  
are disconnected  
Mortality analytics are missing

3

## **Capacity**

Multiple digital platforms  
trained HR available

4

## **Legal framework**

.Ineffective ambiguous and voluntary



# Overall Impression

Death and Cause of death reporting is limited

Deaths outside the facilities especially in rural areas & go unregistered & uncertified by medical professionals

Even within hospitals; limited training on standardized reporting protocols like ICD often results in non-specific diagnoses

Cultural stigma surrounding certain conditions, such as HIV/AIDS or maternal mortality, discourages accurate reporting

Limited community compliance

Regions affected by conflict or political instability face frequent disruptions

Multiple digital platforms and trained HR available

System readiness and sensitization for establishing mortality surveillance was there



# Stakeholders



## Health

---

Director General health  
Diseases Surveillance Units  
Provincial LHW prog lead  
Healthcare commissions  
MNCH Coordinators  
Information systems



## Other agencies/ Administration

---

CRVS/ NADRA  
Bureau of Statistics  
Graveyards  
Ambulatory services  
Cantonments  
Religious affairs  
Minorities councils



## Partner organizations

---

Integral Global  
WHO  
UKHSA  
UNICEF  
World bank  
Others

# Legal Framework

## Foundational Law

- The **Births, Deaths and Marriages Registration Act of 1886** still governs registration
- Allows **voluntary registration**; lacks enforcement

## Federal Legislation

- **NADRA Ordinance (2000)**: Assigns civil registration to NADRA and creates the Civil Registration Management System (CRMS).
- **General Statistics (Reorganization) Act (2011)**: Assigns Pakistan Bureau of Statistics (PBS) responsibility for national vital statistics.

## Provincial Legislation

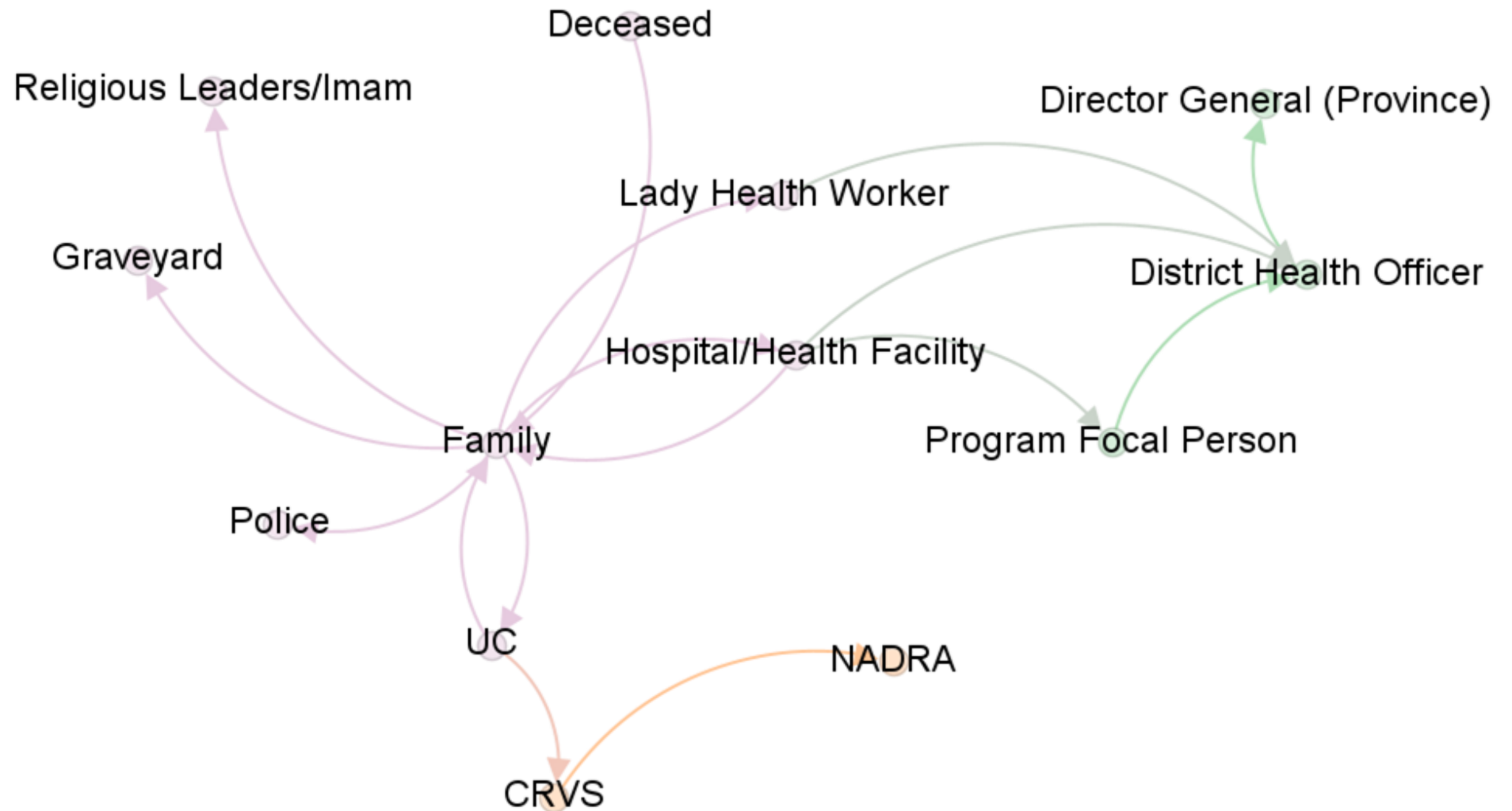
- **Inconsistencies** in legal scope, enforcement, and procedures exist across provinces

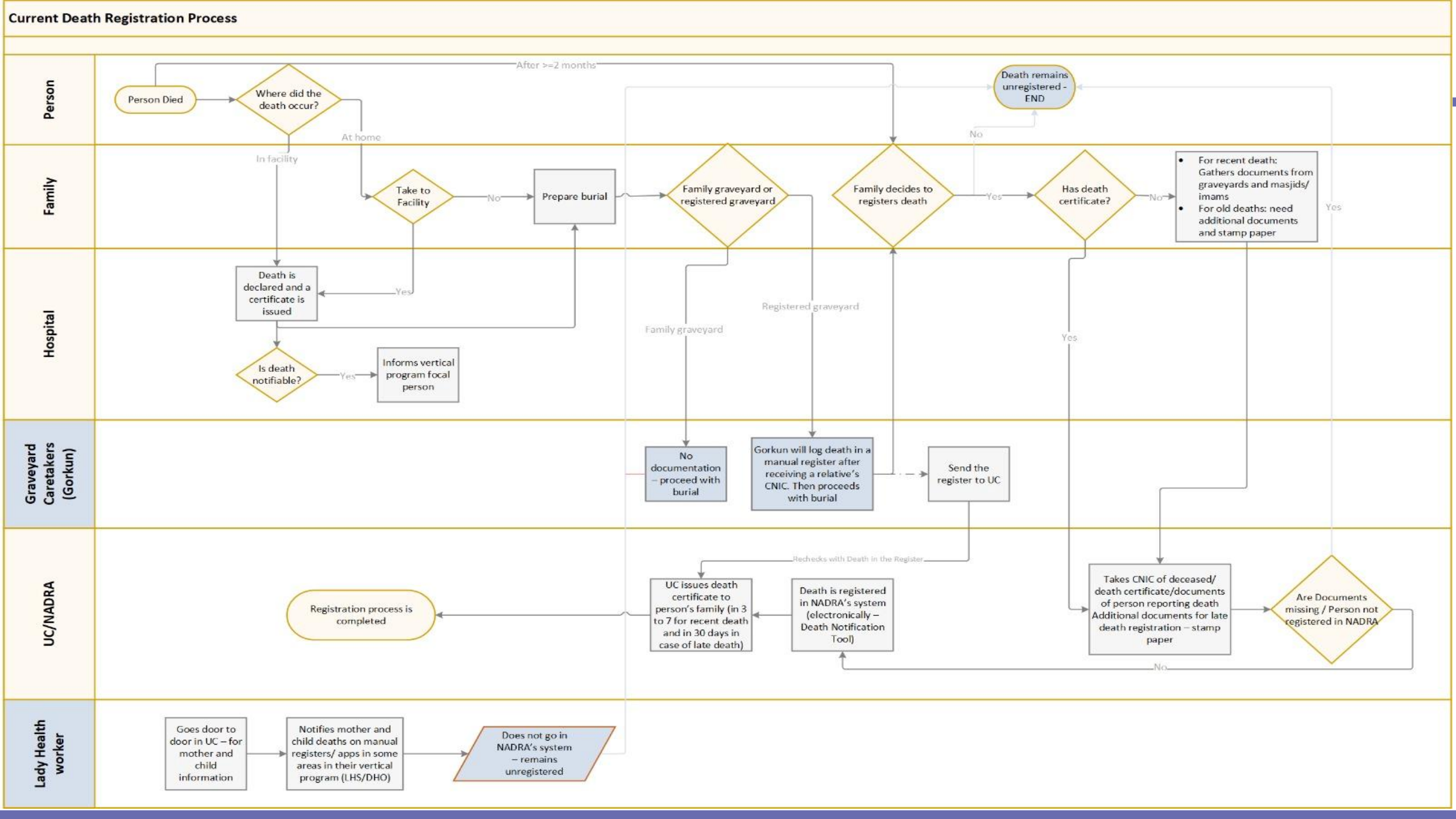




Information system	Data Type	CoD data	Completeness
NADRA CRVS	Aggregate	Limited	31%-58%
HMIS/ RMNCH/ IDSRS/ EMR/ One Patient One ID	Aggregate	No	Mortality data captured but incomplete/missingness/ but no analytics for mortality
Provincial Disease Surveillance Response Unit	Aggregate	Partial	Pools data from multiple systems (IDSRS, Vertical Disease Programs, etc.)
Graveyard Records	-	No	Incomplete, paper-based and not aggregated at any level
Vertical Programs	Aggregate	No	Captured only for target diseases

# NETWORK ANALYSIS







# SWOT ANALYSIS

## Strengths

- Established digital frameworks CRMS, IDSRS
- Existing provincial surveillance platforms (e.g., IDSRS, DDSRU)
- 70%LHW coverage and polio is an add on
- Political willingness to enhance mortality data

## Opportunities

- Leveraging NADRA's digitization
- Integration with existing Health information systems
- Trained VA experts
- Linkages with academia
- International donor support

## Weaknesses

- Multiple standalone data systems
- Underreporting
- Weak legal frameworks
- Funding
- Uncovered areas

## Threats

- Socio-cultural barriers
- Competing initiatives
- Logistical constraints
- Financial sustainability
- Weak enforcement of mandatory reporting

# INTEREST-POWER GRID



Interest	<p><b>High interest; Low power</b> <i>(Stakeholders to inform and involve in advocacy efforts.)</i></p> <ul style="list-style-type: none"> <li>• Program managers/implementers (DHIS2/EMR/IDSRS)</li> <li>• Physicians</li> <li>• Community</li> <li>• Public and academic institutions</li> <li>• Research community</li> <li>• Donors</li> </ul>	<p><b>High interest; High power</b> <i>(“Key players” Keep closely involved throughout the system development and implementation to ensure support)</i></p> <ul style="list-style-type: none"> <li>• NADRA</li> <li>• Health ministry/departments</li> <li>• Media</li> <li>• Ministry of Planning</li> </ul>
	<p><b>Low interest; Low power</b> <i>(Monitor and engage minimally)</i></p> <ul style="list-style-type: none"> <li>• Religious communities</li> <li>• NGOs</li> </ul>	<p><b>Low interest; High power</b> <i>(Not main targets but could oppose the system: keep them informed and acknowledge their views)</i></p> <ul style="list-style-type: none"> <li>• Local government (UC level)</li> <li>• Police</li> <li>• Politicians</li> <li>• Healthcare commissions</li> <li>• Cantonments</li> <li>• Religious scholars</li> </ul>
Power		

# Funding landscape analysis



Sustainable SRS implementation requires a diversified funding base, leveraging both domestic and international support

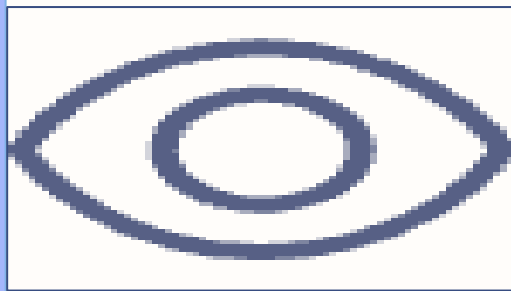
## Available hubs:

1. Domestic budgets:
  - Federal government (PBS, NHSR&C):
  - Provincial governments
2. Bilateral donors (Grants, Technical Assistance)
3. Multilateral agencies (Loans, Grants)
4. Private foundations

## Key Resource Gaps:

- **Operations:** Consistent funding for staff, data processing, & quality control
- **Infrastructure:** Modern data collection tools, secure storage, efficient reporting
- **Human Resources:** Continuous training for enumerators, supervisors, & data analysts
- **Logistics:** Support for transport (especially remote), field communication, & activities
- **Cause of Death (Verbal Autopsy):** Funding for VA training, tools, & quality assurance





## Vision

Establish a strong, nationally representative SRS that delivers timely and accurate data on births, deaths, and causes of death to guide policy, and promote inclusive development across Pakistan.

We envision an equitable, sustainable, and interoperable SRS - expanding population coverage and fully linked with CRVS, health systems, and local governments - to track progress toward the SDGs over next 5 years.





# Acknowledgments

- Prof Zainab and Her team at AKU
- SRS Core team at NIH
- Partners like CRVS NADRA
- Pakistan Bureau of Statistics
- Ministry of planning
- Dr Chalapati Rao



# Thank you



# VISION

By 2050, Senegal will have a secure, continuous, real-time, sustainable national digital surveillance system for data on births, deaths and their causes by age group and gender, in a collaborative, integrated approach that improves existing systems and enables decision-makers to develop public health policies and interventions tailored to communities.



**Republic of Senegal**  
**One People - One Goal - One Faith**



**Ministry of Health  
and Social Action**

# **Situational Assessment for Integrating SRS into Existing Health Data Management Systems in Senegal**

**Team:**

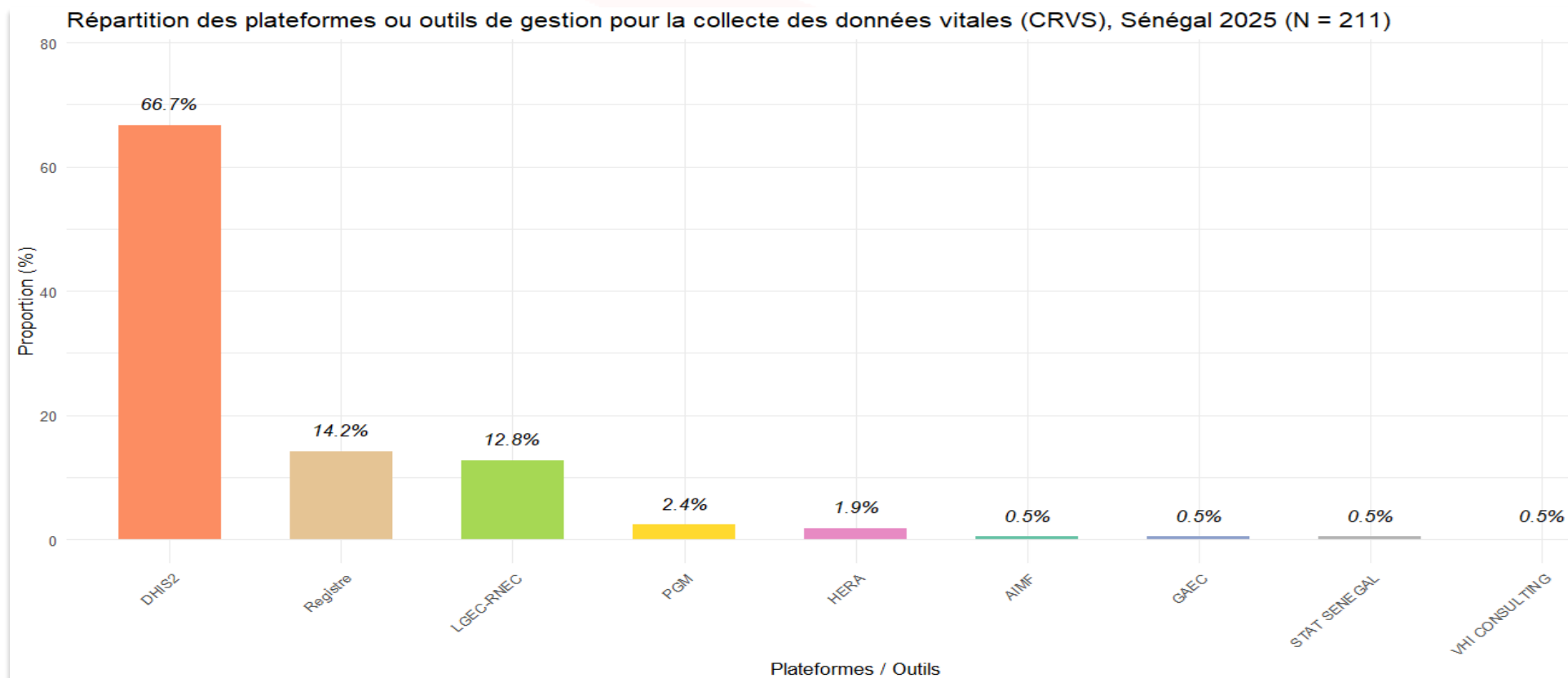
- Pr Ibrahima SECK
- Dr Boly DIOP
- Dr Malick ANNE
- M. Atoumane FALL
- Dr Adia Mah Diamaro DIANÉ
- Dr Tidiane GADIAGA

**Dar Es Salam, Tanzania June 04 2025**



# KEY RESULTS (1/4)

R1: Existence of Platforms and Management Tools for Collecting Vital Event Data (DHIS2, RGEC, LGEC.....)



# KEY RESULTS (2/4)

R2: Existence of Vital Data Collected (deaths, births, pregnancies, causes of death, population counts, etc.).

Types and approaches to data collection	Collected data	
Data types	Accomplished	Proportion %
Deaths	198	93,8
Birth	192	91,0
Pregnancies	145	68,7
Causes of death	128	60,7
Population census	103	48,8
Approaches used		
Civil registration	128	60,7
Census	45	21,3
Surveys	48	22,7
Health information system/routine data	146	69,7
Media	121	62,1

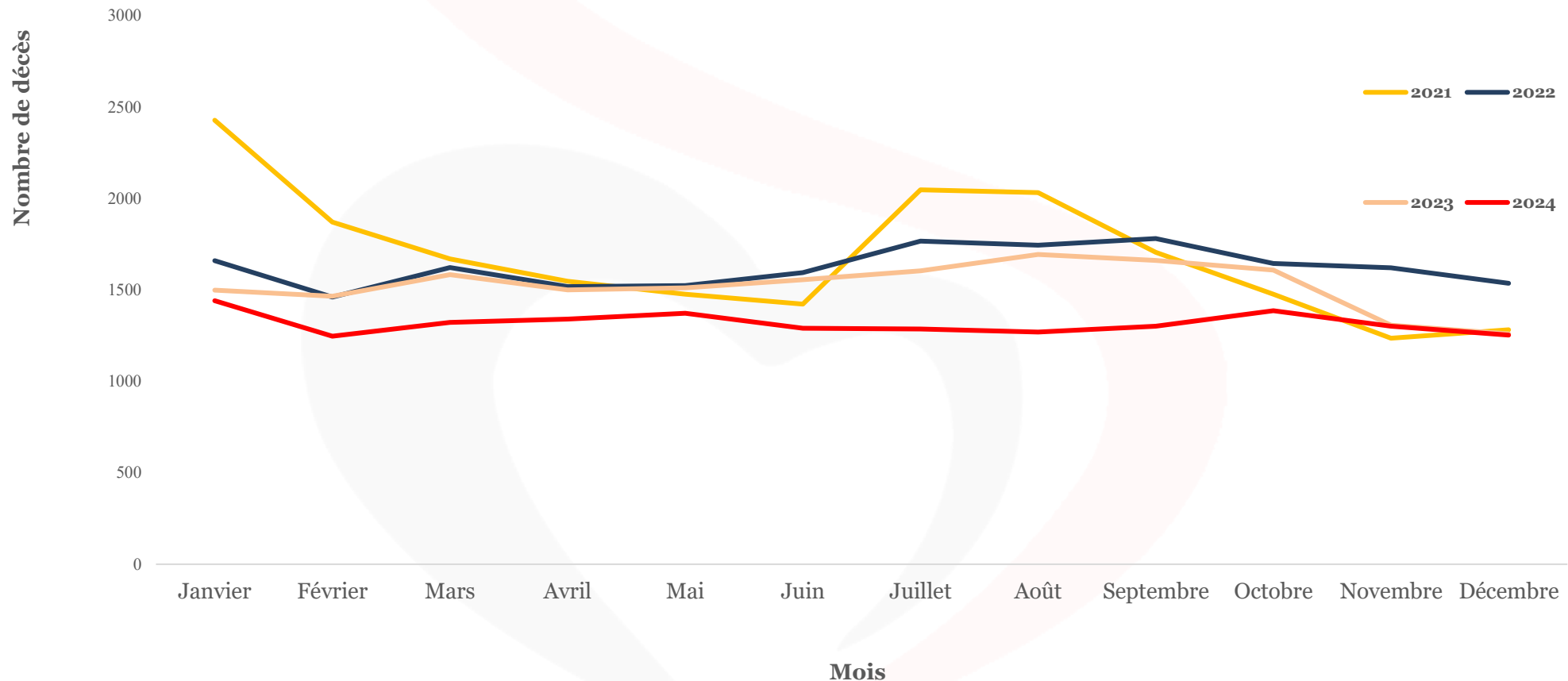
# KEY RESULTS (3/4)

## ▪ R3: Use of Monitoring Systems to Collect Mortality Data

Approaches used to collect data	Collecting data	
	Yes	
	Accomplished	%
Verbal Autopsy	27	56,3
Surveillance of maternal, perinatal deaths, and response (SDMPR)	113	86,3
Integrated disease surveillance and response (SIMR)	105	80,2
Population Observatory / Health and demographic monitoring system (HDSS)/CHAMPS	32	24,4
Civil Registration System and Vital Statistics (CRVS) / Community surveillance	36	27,5
Cemetery surveillance	1	0,8

# KEY RESULTS (4/4)

- R4: Availability of Monthly Changes in the Number of Deaths from 2021 to 2024



# LESSONS LEARNED

- Setting up an SRS is a gradual process.
- The SRS does not replace other existing systems, but complements them.
- Different models for integrating the SRS into the CRVS.

# CHALLENGES AND OPPORTUNITIES

## (1/2)

---

### Gaps

---

- Multiple, compartmentalized subsystems for recording vital events.
- Incompleteness and incompleteness of vital data reported by recording systems.
- Failure to digitize death notification procedures in the health sector.

### Opportunities with SRS

---

- Establishing communication between these subsystems through interoperability.
- Improving the completeness and exhaustiveness of vital data.
- Full digitization of death notification procedures.

# CHALLENGES AND OPPORTUNITIES

## (2/2)

---

### Gaps

---

- Failure to involve community players in mortality monitoring.
- Lack of training for healthcare providers and agents in other sectors on death management and birth registration procedures.

### Opportunities with SRS

---

- Use of community players in monitoring vital events (deaths and births) at community level.
  - Capacity-building for healthcare providers and agents from other sectors on death management and birth registration procedures.
-



# NEXT STEPS

	February 2025	March 2025	April 2025	May/June 2025
Drafting the protocol				
Submission to CNER				
Recruitment of interviewers				
Interviewer training				
Field data collection				
Data processing				
Data analysis				
Report preparation				
Report sharing				

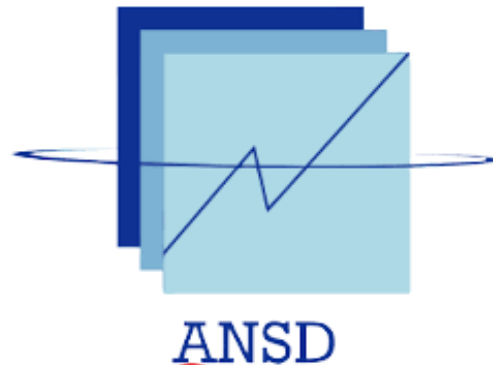
## June - September 2025:

- ✓ Finalization of the situational analysis report.
- ✓ Workshop to share the situational analysis with BSS stakeholders.
- ✓ Drawing up a national plan to implement the SRS in Senegal.
- ✓ Plan budgeting.
- ✓ Plan validation.

## October 2025 - September 2029: Implementation of SRS



# THANK YOU



BILL & MELINDA  
GATES *foundation*

Bloomberg  
Philanthropies







# Sample Registration System (SRS) Planning Grant - Tanzania

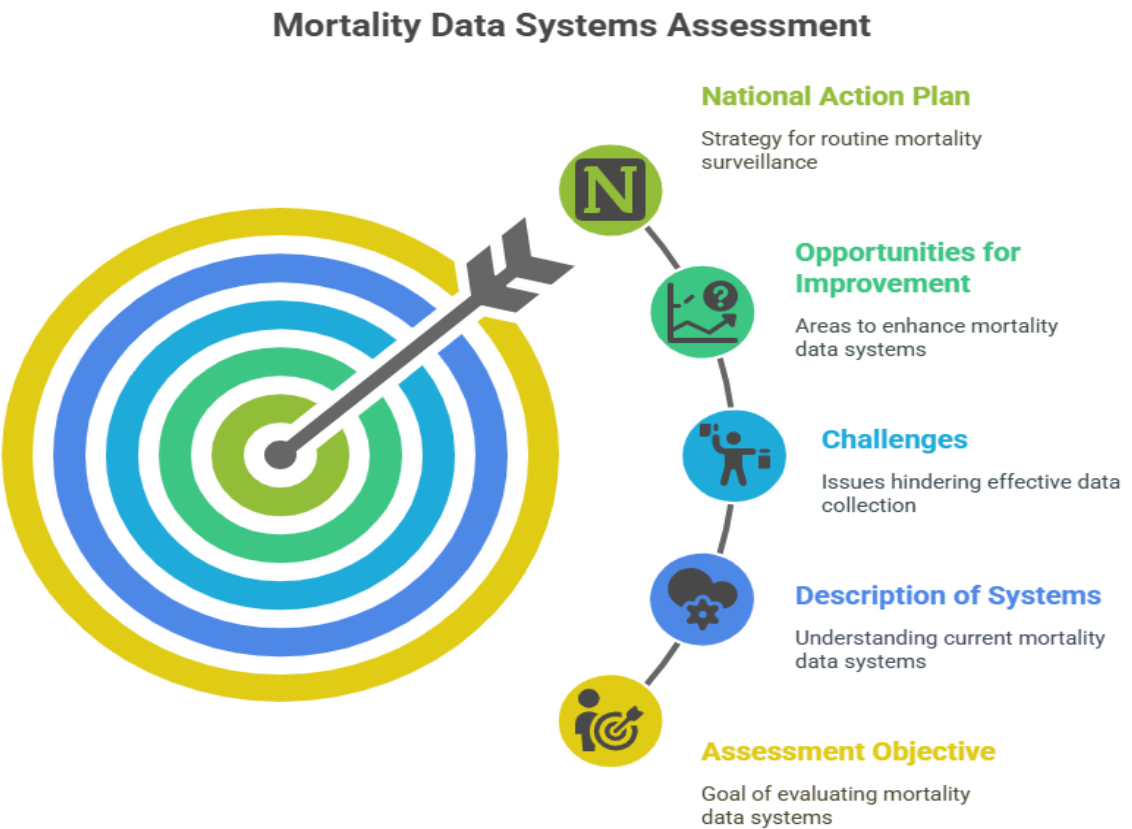
## Mortality Data Systems Assessment

Presenter: Gisbert Msigwa

Ramada Hotel – Dar es Salaam

4<sup>th</sup> June 2025

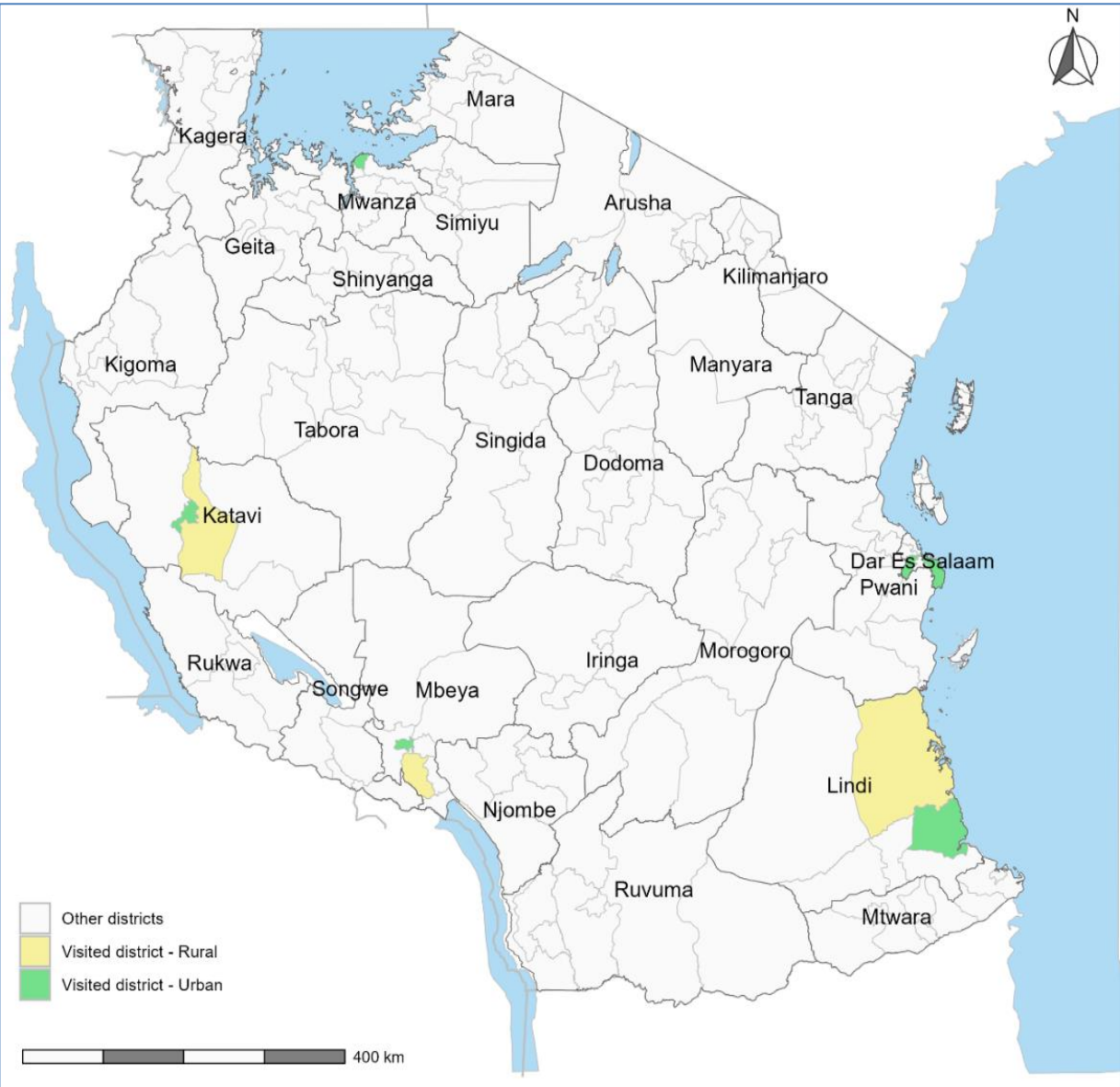
# Objective of this assessment



- The assessment sought to identify and describe the current state, and challenges of existing mortality data systems.
- It also aimed to identify opportunities to improve the state of mortality data in Tanzania and support the formulation of a national action plan for a routine mortality surveillance program through SRS implementation.

Made with Napkin

# Study Proposal, Sites and Respondents

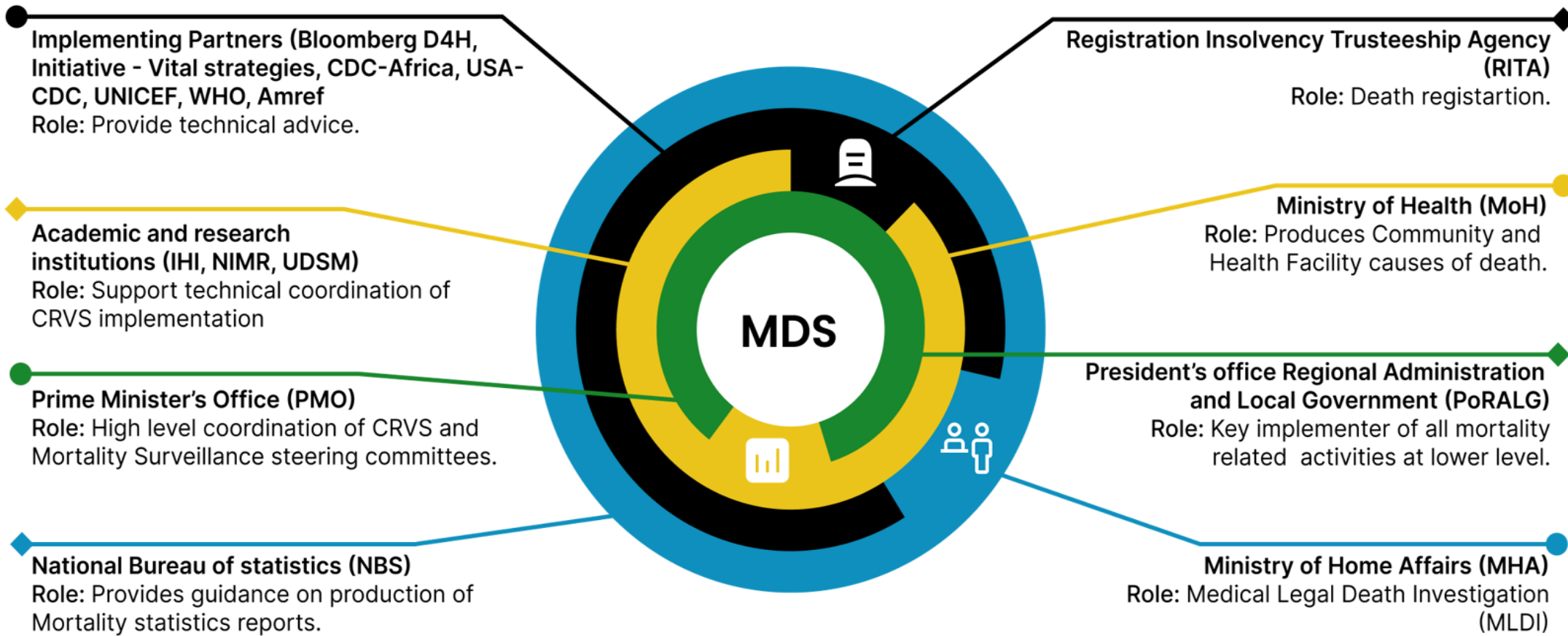


- The study was preceded by the ethical clearance provided by NIMR.
- Individuals working at the national, regional, district, facility, and community levels were participated in the study.
- Data was collected by trained field interviewers using electronic data collection tools embedded in Tablets.
- Study sites included 5 Regions. Two districts (Urban and Rural) were purposively selected in each region.

# Results from the assessment



# Mortality data systems' stakeholders in Tanzania



To have active technical working groups meet as per ToRS, SRS will technically be led by IHI, will be coordinated by MoH while having desk officers from each of the key institutions (NBS, PoRALG, RITA, MoHA etc )

# Mortality data and information systems

SN	Mortality data platform	Managing institution	Geographic Scope	Type of mortality data	Level of data collection
01	CRVS	MoCLA	National	Individual	Health facility and Community
02	DHIS2	Ministry of Health	National	Individual and aggregate	Health Facility
03	MPDSR	Ministry of Health	National	Individual	Health facility and Community
04	IDSR	Ministry of Health	National	Individual and aggregate	Health facility and Community
05	CRVS Decentralized	MoCLA	Regional	Individual and aggregate	Health facility and Community
06	CRVS VA	Ministry of Health	Nationally representative sample	Individual and aggregate	Community deaths only
07	MLDI	Ministry of Home Affairs	National	Individual	Health facility and Community
08	HDSS	National Institute for Medical Research	District	Individual	Community deaths

- 8 systems were identified and assessed, same information being collected multiple times, projections are used as denominators.

SRS will use enumeration to have active denominators.

Through SRS information will be collected once and used multiple times

# Data Capture forms

- We have identified 20 forms that are used for mortality system related data capture by different institutions that were assessed.
- Majority of forms were paper based at a point of data collection and transmission was electronic (hybrid systems)
- Cadres identified to be involved in production of mortality data included nurses, vital events registrar, mortuary attendants, police, community health workers, clinicians and local leaders.

Digitize the data collection forms

Use community CHWs in data collection, they are now government employees and curricula include data collection

The image displays two sample forms from the 'JAMHURI YA MUUNGANO WA TANZANIA' (United Republic of Tanzania) for death registration. The top form is titled 'FOMU YA USAJILI WA KIFO (DEATH REGISTRATION FORM)' and includes sections for 'Taarifa za kisheria (Legal Information)', 'Taarifa za Kitawimu (Statistical Information)', and 'Mtaa Taarifa (Informant)'. The bottom form is titled 'CHETI CHA KIFO' (Death Certificate) and includes sections for 'Jina kamili la Marehemu' (Full name of the deceased), 'Tarehe ya kifo' (Date of death), 'Mahali kifo kilipotokea' (Place of death), and 'Jina la Msaajili Msaidizi' (Name of the registrar). Both forms include fields for personal details like name, age, sex, and date of birth, as well as administrative details like the date and place of registration.

# Features of interoperability between the existing ICT systems used for Mortality Surveillance in Tanzania

- All systems do not routinely exchange data.
- All systems assessed were found to have an ongoing data integration status with the next step being finalization, testing, and rollout.
- All assessed systems had individual and aggregated data, which creates a conducive environment for data users.

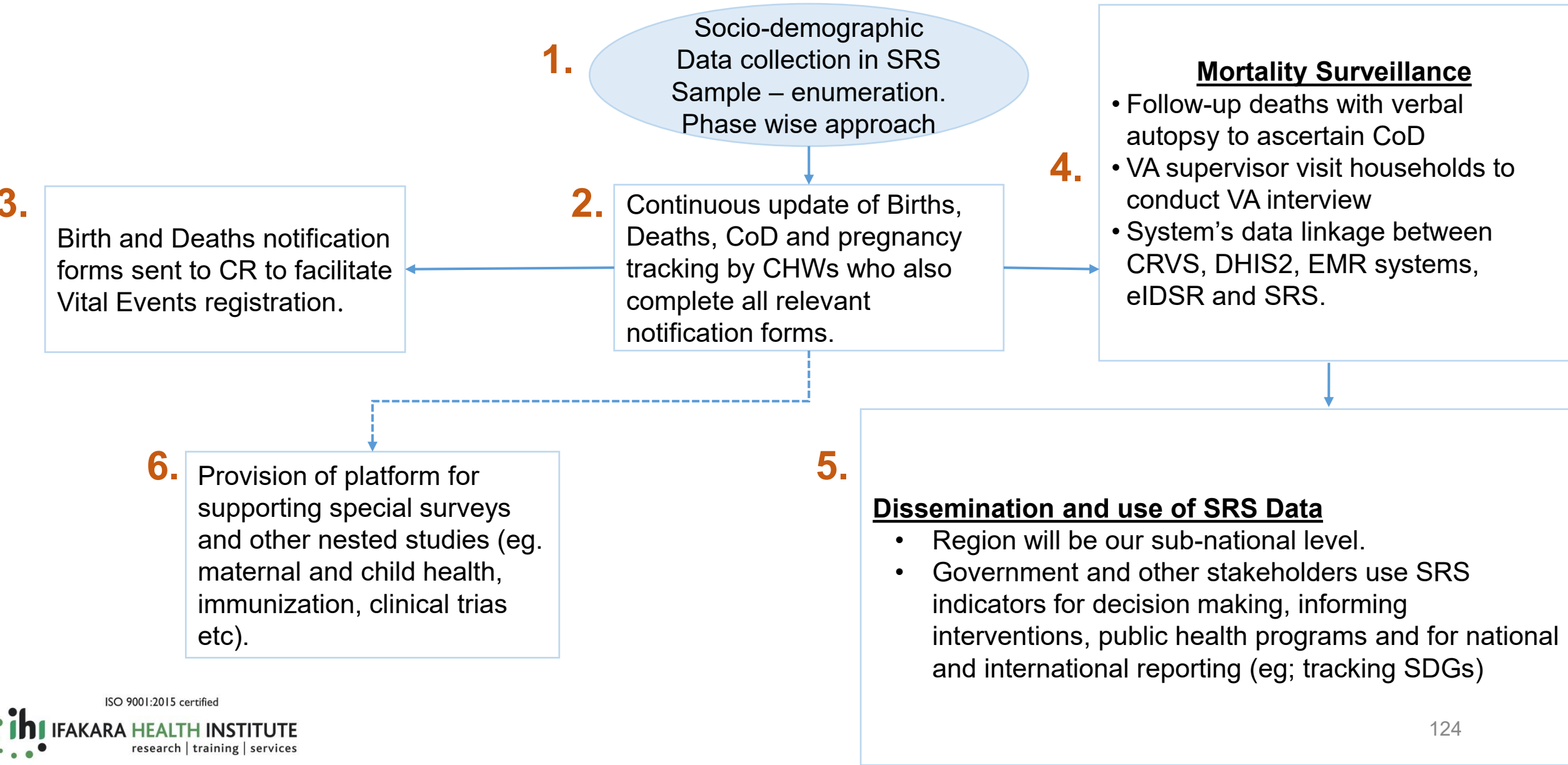
We will use data systems integration to facilitate data exchange between SRS and CRVS

# Vision of Tanzania SRS

To establish functioning and efficient vital events' registration system that supports effective decision making

- The vision will be 5 years to align with RITA's vision and complement on Tanzania Development Vision 2050.
- The SRS will produce timely and accurate agreed data sets.

# Considerations for integrated SRS in Tanzania





# Next steps

- Finalize the assessment report to incorporate the missing contents.
- Design the SRS (agree on sampling strategy).
- Costing the SRS implementation.



# Thank you for listening

Lunch

# Outings

IHI site visit to Bagamoyo  
Gift shopping

Closing