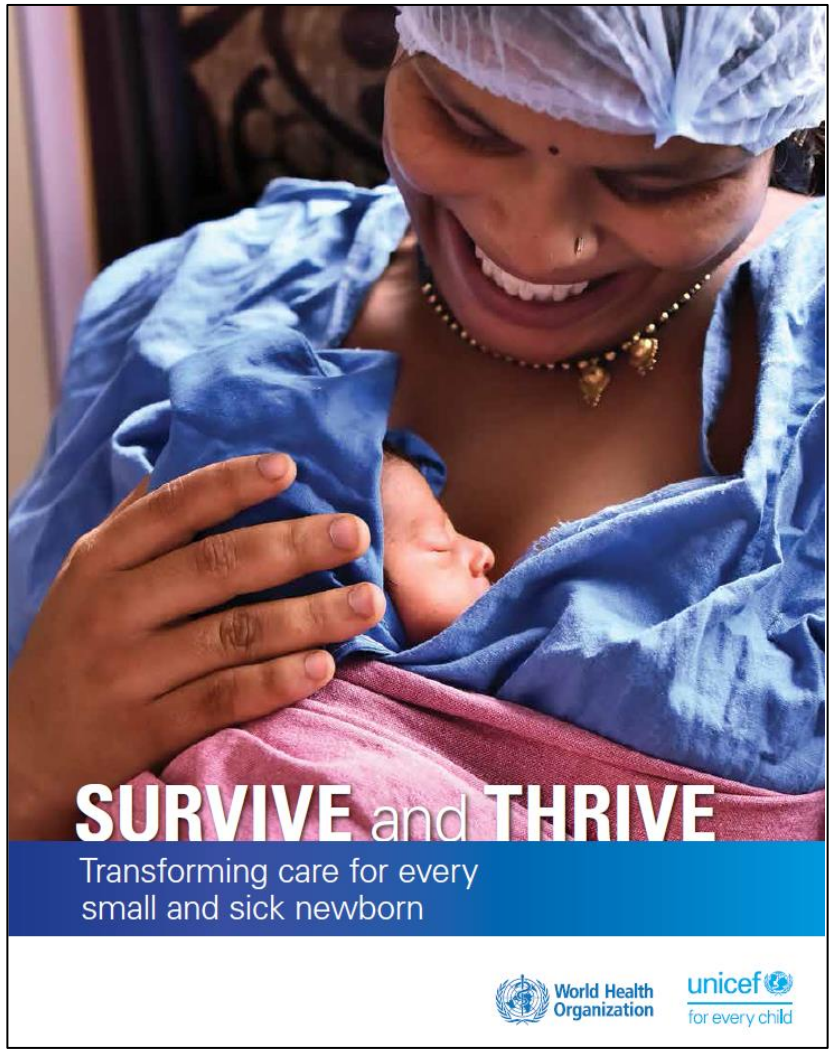
# IMPULSE

IMProving qUaLity and uSE of newborn indicators

## VALIDATION AND DISSEMINATION WORKSHOP

## DODOMA, TANZANIA

## 31 JULY 2024




LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE | MARCH MATERNAL ADOLESCENT REPRODUCTIVE & CHILD HEALTH | DOCTORS WITH AFRICA CUAMM | WHO Collaborating Center for Maternal and Child Health Trieste Italy | MAKERERE UNIVERSITY 1922 - 2022 School of Public Health College of Health Sciences, Makerere University | ISO 9001: 2015 certified IFAKARA HEALTH INSTITUTE research | training | services | Chiesi FOUNDATION

IMPULSE

IMProving qUaLity and uSE of newborn indicators

- Why the focus on newborn and stillbirth data?
- What is the IMPULSE Study?
- IMPULSE Phase 1: methods, findings, validation discussion
- IMPULSE Phase 2:How can we work together for phase 2?

# IMPULSE project team

IMPROVING qUaLity and uSE of newborn indicators

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| CAR<br>Doctors with Africa, CUAMM | Ethiopia<br>Doctors with Africa, CUAMM | Tanzania<br>Ifakara Health Institute | Uganda<br>Makerere University School of Public Health | Italy<br>WHO Collaborating centre, Burlo | Italy<br>Doctors with Africa, CUAMM | UK<br>London School of Hygiene & Tropical Medicine |
|---|---|---|---|---|---|---|
| **Ousman Mouhamadou**<br>**Data collectors** | **Firehiwot Abathun**<br>**Dawit Fisseha**<br>**Mary Ayele**<br>**Data collectors** | **Jacqueline Minja**<br>**Honorati Masanja**<br>**Data collectors**<br>**Donat Shamba (PI)** | **Muhumuza Kananura**<br>**Rornald Peter Lochoro**<br>**Data collectors**<br>**Peter Waiswa (PI)** | **Ilaria Mariani**<br>**Sara Geremia**<br>**Paolo Dalena**<br>**Lorenzo Cora** | **Francesca Tognon**<br>**Martina Borellini**<br>**Giovanni Putoto** | **Marzia Lazzerini (PI)**<br>**Louise Tina Day (Co-PI)**<br>**Joy Lawn** |
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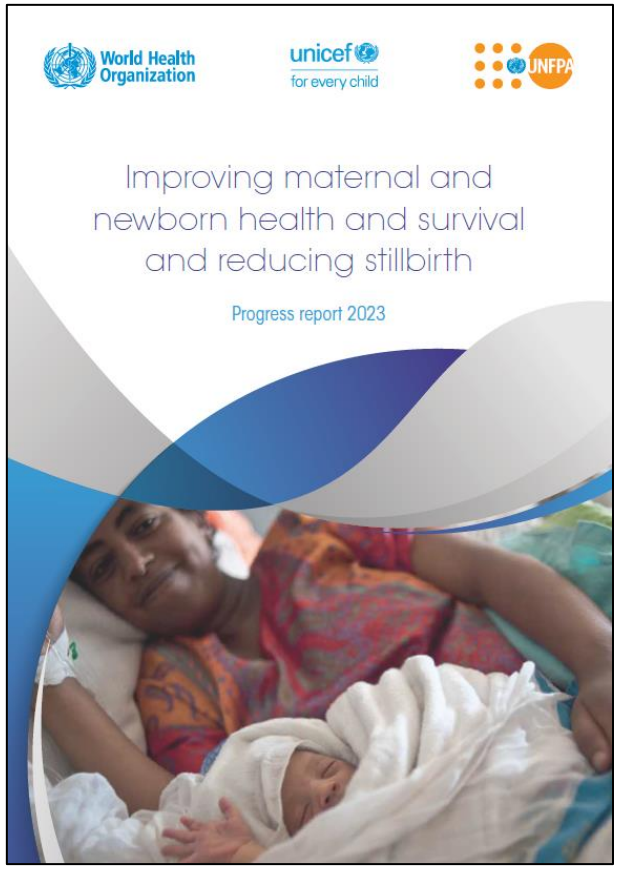
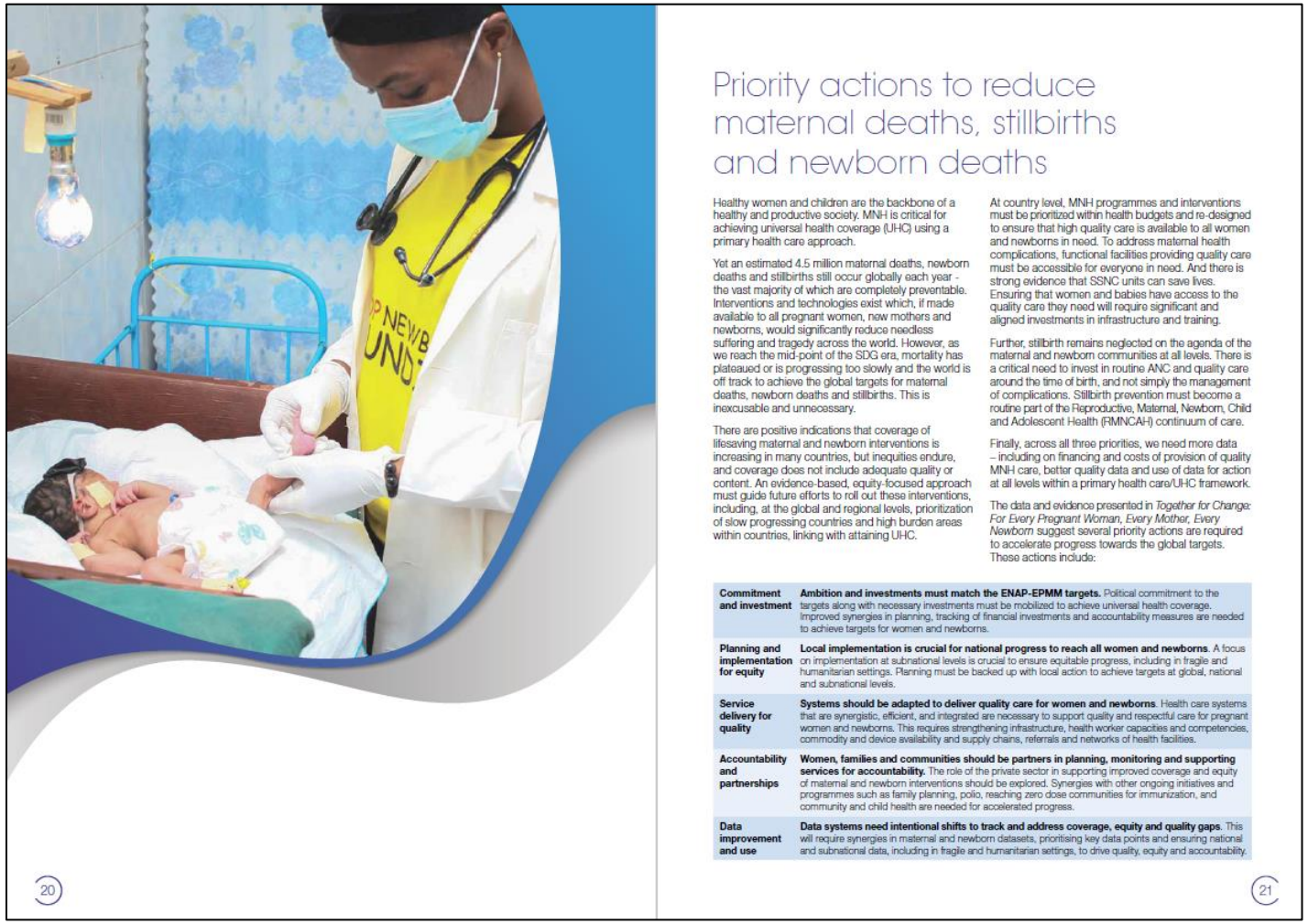
# WHO/ UNICEF/ UNFPA Maternal and newborn global progress report 2023

IMPROVING qUaLity and uSE of newborn indicators

## “Preventable stillbirths and newborn deaths remain extraordinarily high”



### Priority actions to reduce maternal deaths, stillbirths and newborn deaths

Healthy women and children are the backbone of a healthy and productive society. MNH is critical for achieving universal health coverage (UHC) using a primary health care approach.

Yet an estimated 4.5 million maternal deaths, newborn deaths and stillbirths still occur globally each year - the vast majority of which are completely preventable. Interventions and technologies exist which, if made available to all pregnant women, new mothers and newborns, would significantly reduce needless suffering and tragedy across the world. However, as we reach the mid-point of the SDG era, mortality has plateaued or is progressing too slowly and the world is off track to achieve the global targets for maternal deaths, newborn deaths and stillbirths. This is inexcusable and unnecessary.

There are positive indications that coverage of lifesaving maternal and newborn interventions is increasing in many countries, but inequities endure, and coverage does not include adequate quality or content. An evidence-based, equity-focused approach must guide future efforts to roll out these interventions, including, at the global and regional levels, prioritization of slow progressing countries and high burden areas within countries, linking with attaining UHC.

At country level, MNH programmes and interventions must be prioritized within health budgets and re-designed to ensure that high quality care is available to all women and newborns in need. To address maternal health complications, functional facilities providing quality care must be accessible for everyone in need. And there is strong evidence that SSNC units can save lives. Ensuring that women and babies have access to the quality care they need will require significant and aligned investments in infrastructure and training.

Further, stillbirth remains neglected on the agenda of the maternal and newborn communities at all levels. There is a critical need to invest in routine ANC and quality care around the time of birth, and not simply the management of complications. Stillbirth prevention must become a routine part of the Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCAH) continuum of care.

Finally, across all three priorities, we need more data – including on financing and costs of provision of quality MNH care, better quality data and use of data for action at all levels within a primary health care/UHC framework.

The data and evidence presented in *Together for Change: For Every Pregnant Woman, Every Mother, Every Newborn* suggest several priority actions are required to accelerate progress towards the global targets. These actions include:

| | |
|---|---|
| **Commitment and investment** | **Ambition and investments must match the ENAP-EPMM targets.** Political commitment to the targets along with necessary investments must be mobilized to achieve universal health coverage. Improved synergies in planning, tracking of financial investments and accountability measures are needed to achieve targets for women and newborns. |
| **Planning and implementation for equity** | **Local implementation is crucial for national progress to reach all women and newborns.** A focus on implementation at subnational levels is crucial to ensure equitable progress, including in fragile and humanitarian settings. Planning must be backed up with local action to achieve targets at global, national and subnational levels. |
| **Service delivery for quality** | **Systems should be adapted to deliver quality care for women and newborns.** Health care systems that are synergistic, efficient, and integrated are necessary to support quality and respectful care for pregnant women and newborns. This requires strengthening infrastructure, health worker capacities and competencies, commodity and device availability and supply chains, referrals and networks of health facilities. |
| **Accountability and partnerships** | **Women, families and communities should be partners in planning, monitoring and supporting services for accountability.** The role of the private sector in supporting improved coverage and equity of maternal and newborn interventions should be explored. Synergies with other ongoing initiatives and programmes such as family planning, polio, reaching zero dose communities for immunization, and community and child health are needed for accelerated progress. |
| **Data improvement and use** | **Data systems need intentional shifts to track and address coverage, equity and quality gaps.** This will require synergies in maternal and newborn datasets, prioritising key data points and ensuring national and subnational data, including in fragile and humanitarian settings, to drive quality, equity and accountability. |

# WHO/ UNICEF/ UNFPA Maternal and newborn progress report 2023

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## Priority actions to reduce stillbirths and newborn deaths

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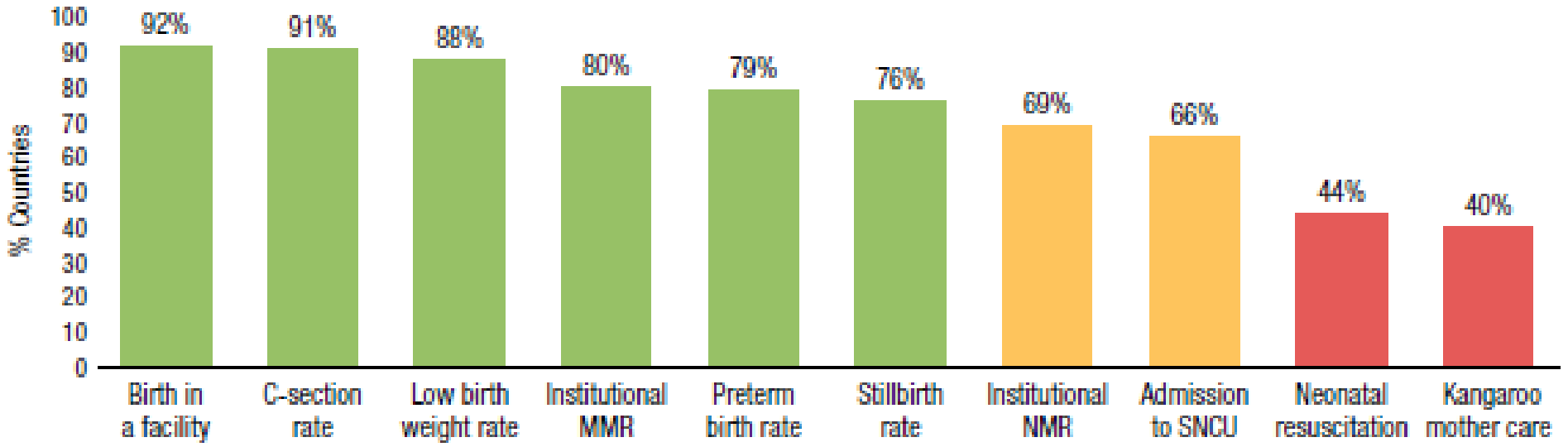
## Data and information systems for MNH indicators

### Data and information systems

Data and information are a core component of the provision of quality MNH care because they allow for measurement, programme tracking, informed decision-making, evidence-based implementation and accountability. Many countries are routinely tracking, collecting and using data on maternal and newborn

Reports into the joint *Tracking Tool* from 106 countries across all SDG regions reveal mixed progress towards the ENAP-EPMM targets and milestones. While there is broadly strong political commitment towards achieving the ENAP-EPMM targets across the globe, the necessary investments have not yet been made to support these in many countries. Further, in many cases where national plans and policies are in place,

Figure 13: Countries with an RHIS that includes key MNH indicators (n=105)




Source: ENAP-EPMM Joint Tracking Tool analysis, 2023.

Birth in a facility | C-section rate | Low birth weight rate | Institutional MMR | Preterm birth rate | Stillbirth rate | Institutional NMR | Admission to SNCU | Neonatal resuscitation | Kangaroo mother care

Source: ENAP-EPMM Joint Tracking Tool analysis, 2023.

SDG

# Every Newborn Measurement Improvement Research

Data use in countries for programme improvement and accountability

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Improving Quality and Use of Newborn Indicators (IMPULSE)
In Central Africa Republic, Ethiopia, Tanzania, Uganda)
(funded Chiesi Fundation) 2021-2024

EN-BIRTH STUDY 2

Every Newborn – Measurement Improvement for Newborn and Stillbirth Indicators (EN-MINI) Tools
in Bangladesh, Tanzania – funded by USAID 2019-2022

EN-MINI tools

EN-BIRTH STUDY 1

Every Newborn - Birth Indicators Research Tracking in Hospitals
Assessment of validity of newborn indicator measurement
in Bangladesh, Nepal, Tanzania – funded by CIFF 2016-2021

2030
End Preventable Maternal and Newborn Deaths and Stillbirths

2025
Effective use of data in national health information systems

Data for action - Every Newborn Action Plan

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Chiesi FOUNDATION

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IMProving qUaLity and uSE of newborn indicators

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| complete list on next slide | **National Advisory Group**<br>Prof Norbert Richard Ngbale<br>Prof Jean Chrysostome Gody<br>Dr Carine Kiteze<br>Dr Claudia Adam<br>Dr. Jean-Louis Komayan<br>Dr Stephane Muzindusi Bikoro | **National Advisory Group**<br>**Dr Ahmed Makuwani,**<br>**Sr Ziada Sellah,**<br>**Dr Felix Bundala,**<br>**Mr Claud Kumalija,**<br>**Dr James Tumaini Kengia**<br>Dr Robert Moshiro,<br>Dr Edwin Swai<br>Dr Nahya Salim<br>Dr Daimon Lugano<br>Mr Alexander Baluhya<br>Mrs Feddy Mwanga<br>Dr Pius Muzzazzi<br>Dr Matilda Ngarina<br>Dr Ulrika Baker | **National Advisory Group**<br>Dr Mugahi Richard<br>Dr Peter Waiswa<br>Dr Victoria Nankabirwa<br>Patricia Pirio<br>BODO, Bongomin<br>Dr Sharon Tsui<br>Christine Mugasha | **International Advisory Group**<br>Dr Theresa Diaz; Mr Martin Dohlsten<br>Dr Danielle Ehret; Dr Tedbabe Degefie Hailegebriel<br>Prof Debra Jackson; Dr Ornella Lincetto<br>Dr Allisyn Moran; Dr Assumpta W. Muriithi<br>Dr Moise Muzigaba; Dr Barbara Rawlins<br>Dr Jennifer Requeio; Dr Johan Ivar Saebo<br>Dr Kavita Singh; Dr Alex Stevenson<br>Dr Merran Thomson; Prof Karen Walker<br>Dr Wilson Were; Dr Teshome Desta Woldhanna<br>Mr Andrew Storey<br>Dr Oluwaseun Aladesanmi (Seun) | | |

# Website

IMPULSE
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[lshtm.ac.uk/impulse](lshtm.ac.uk/impulse)

## Improving quality and use of newborn indicators (IMPULSE study)

The **IMP**roving q**U**a**L**ity and u**SE** of newborn indicators (IMPULSE) study aims to improve newborn routine data quality and use in high mortality settings for Every Newborn to survive and thrive.

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## About

**Collaborating partners**

DOCTORS WITH AFRICA CUAMM

IFAKARA HEALTH INSTITUTE

The **IMP**roving q**U**a**L**ity and u**SE** of newborn indicators (IMPU two-phase project aiming to describe and improve the qualit facility-level newborn indicators in four African countries: **Ce Republic, Ethiopia, United Republic of Tanzania** and **Ugan**

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**MARCH C...** @MA... · 1h

Today at 1pm BST!

**MAR...** @. · Apr 27

How do colonial reproductive policies shape #fertility behaviour in ...

# IMPULSE study aims and objectives

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**Aim:** To improve newborn routine data quality and use in low- and middle-income countries and specifically in Africa for Every Newborn to survive and thrive.

**IMPULSE Phase 1 Objectives**

In four African countries (Central African Republic, Ethiopia, Tanzania and Uganda) focusing on health facilities caring for small or sick newborns, to:

1. Map newborn indicator data availability in existing routine health information systems (RHIS)
2. Assess newborn key indicator data quality in existing RHIS.
3. Understand newborn indicator data use by different stakeholders in existing RHIS.
4. Analyze technical, organizational and behavioural enabling factors in RHIS to improve newborn indicator data quality and use
5. Measure the effect of the COVID-19 pandemic on newborn RHIS data

EN-MINI tools

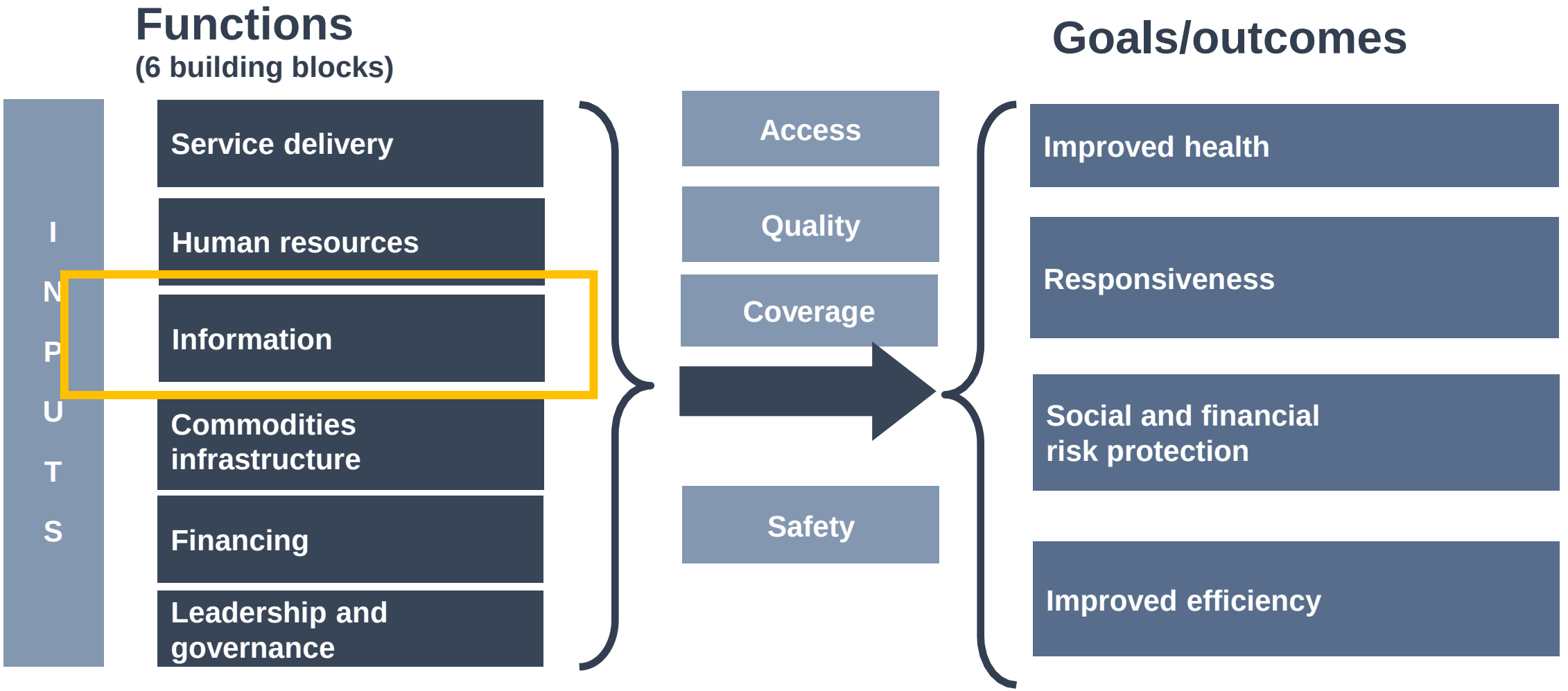
**IMPULSE Phase 2 protocol**

Developed using evidence generated in phase 1 and a theory of change with focus on high quality care in health facilities caring for small and sick newborns in LMIC and specifically Africa, to:

- Co-create practical sustainable intervention(s) to improve routine newborn data availability, quality and use of data for action to improve newborn health and wellbeing.
- To test effectiveness and cost of the co-created intervention
- Specific research questions will be described during the design of the phase 2 protocol.

?

# Functions and goals of a health system




Source: World Health Organization (WHO), 2000

# The Performance of Routine Information System Management (PRISM) -Framework

INPUTS | PROCESSES | OUTPUTS | OUTCOMES | IMPACT

## RHIS determinants

**Technical factors:**
- Complexity of reporting forms and procedures
- HIS design
- Computer software
- Information technology complexity

**Organizational factors:**
Critical management functions & information needs
- Governance
- Planning
- Training
- Supervision
- Quality
- Finance

- Promotion of a culture of information

- Resource availability

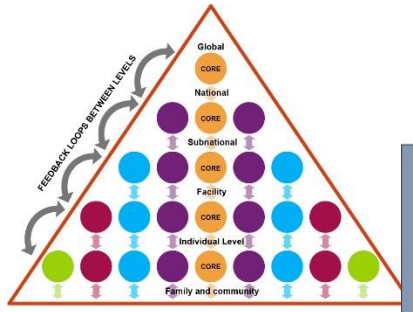
**Behavioral factors:**
- Level of knowledge of content of HIS forms
- Data-quality checking skills
- Problem-solving for HIS tasks
- Competence in HIS tasks
- Confidence levels for HIS tasks
- Motivation

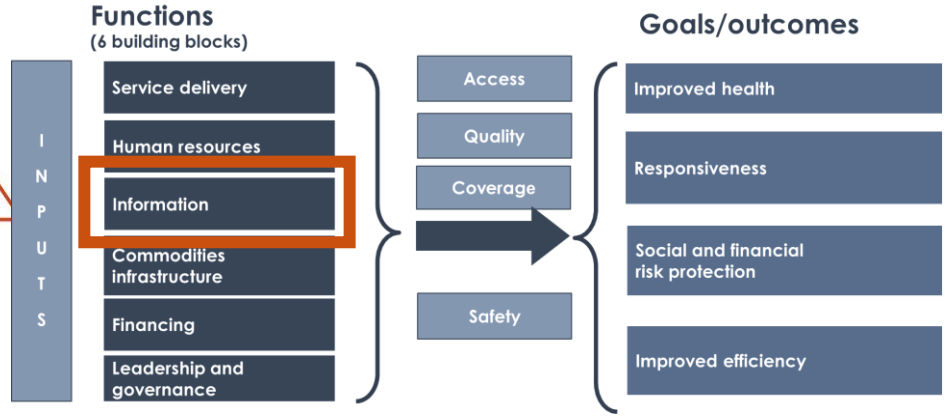
**RHIS processes:**
- Data collection
- Data transmission
- Data processing
- Data analysis
- Data quality check
- Feedback

**Improved RHIS performance**
- Data quality
- Information use

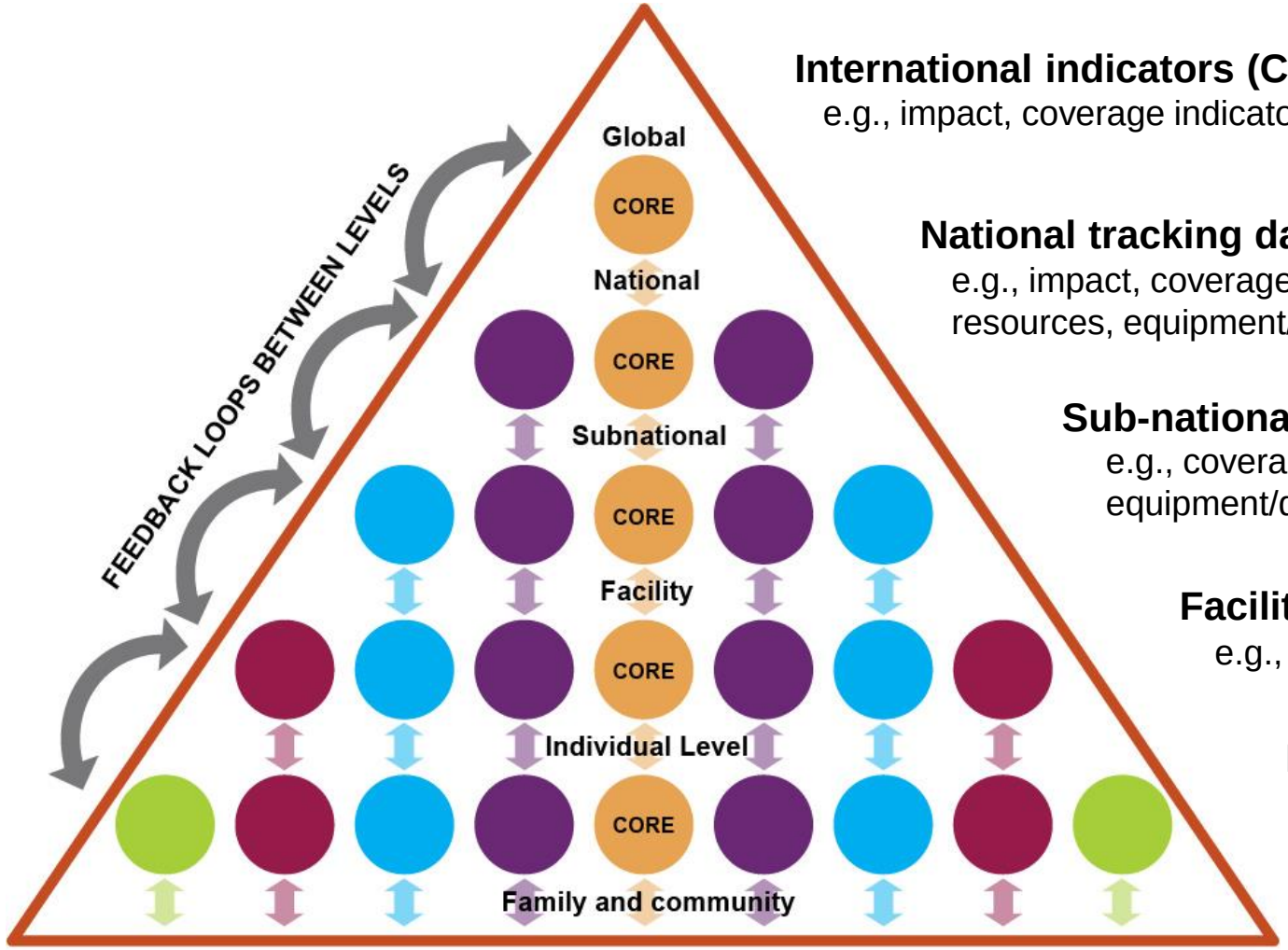
**Improved health system performance**

**Improved health status**



# Routine data collection and use by system level




**International indicators (Core) to track SDGs and UHC**
e.g., impact, coverage indicators

**National tracking data**
e.g., impact, coverage, service readiness indicators, human resources, equipment/drugs

**Sub-national/ District management**
e.g., coverage, more detailed service readiness indicators, equipment/drugs

**Facility management**
e.g., for quality improvement

**Individual client care data**
e.g., details for clinical decision, client experience of care

Adapted from: Day LT, Ruysen H, Gordeev VS, et al: "Every Newborn-BIRTH" protocol: observational study validating indicators for coverage and quality of maternal and newborn health care in Bangladesh, Nepal and Tanzania. Journal of Global Health 2019, 9(1).

SDG – Sustainable Development Goals, UHC – Universal Health Coverage

# Well-functioning information systems

INPUTS | PROCESSES | OUTPUTS | OUTCOMES | IMPACT

## RHIS determinants

**Technical factors:**
- Complexity of reporting forms and procedures
- HIS design
- Computer software
- Information technology complexity

**Behavioral factors:**
- Level of knowledge of content of HIS forms
- Data-quality checking skills
- Problem-solving for HIS
- Confidence levels for HIS tasks
- Motivation

**Organizational factor**
Critical management functions & information needs
- Governance
- Planning
- Training
- Supervision
- Quality
- Finance

- Promotion of a culture of information

- Resource availability

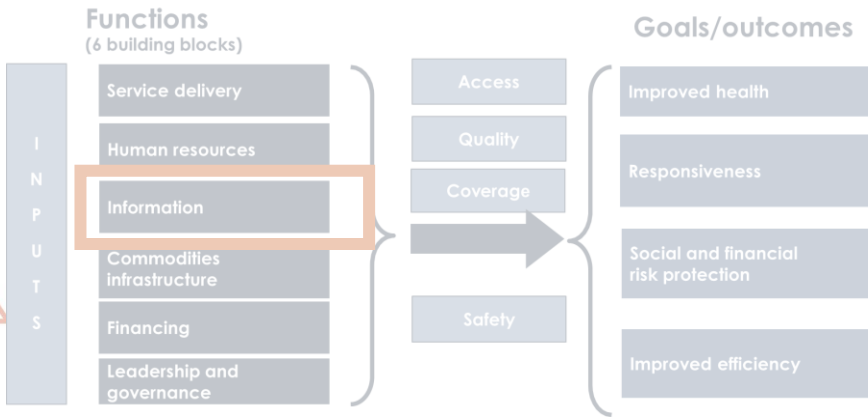
**RHIS processes:**
- Data collection
- Data transmission
- Data processing
- Data analysis

**Improved RHIS performance**
- Information use

**Improved health system**

**Improved health**

**Good data** → **Good decisions** → **Responsive & efficient health system**

# Analyzing a data problem and its causes: an example

**Problem:** Data are not being transmitted on time

**Causes:**

| | |
|---|---|
| **Technical** | Reporting form is complex and requires review of multiple register books |
| **Organizational** | • No incentive to submit reports on time<br>• No standard operating procedure (SOP) on reporting communicated formally |
| **Behavioral** | Staff do not have sufficient skill to prepare reports using data from different register books and health cards. |

# Definitions of the PRISM Determinants: Technical Factors

| INPUTS | PROCESSES | OUTPUTS | OUTCOMES | IMPACT |
|---|---|---|---|---|

**RHIS determinants**

**Technical factors:**
- **Complexity of reporting forms and procedures**
- **HIS design**
- **Computer software**
- **Information technology complexity**

- Standard indicators
- Trained staff
- Well-designed data collection forms
- Systems
- User-friendly reporting forms
- Processes and methods

# Definitions of the PRISM Determinants: Organizational Factors

INPUTS | PROCESSES | OUTPUTS | OUTCOMES | IMPACT

**RHIS determinants**

**Organizational factors: Critical management functions & information needs**
- **Governance**
- **Planning**
- **Training**
- **Supervision**
- **Quality**
- **Finance**

- Promotion of an information culture
- Infrastructure
- Resource availability
- Roles and responsibilities
- Training
- Supportive supervision

# Definitions of the PRISM Determinants: Behavioral Factors

INPUTS | PROCESSES | OUTPUTS | OUTCOMES | IMPACT

**RHIS determinants**

**Behavioral factors:**
- **Level of knowledge of content of HIS forms**
- **Data-quality checking skills**
- **Problem-solving for HIS tasks**
- **Competence in HIS tasks**
- **Confidence levels for HIS tasks**
- **Motivation**

- Motivation
- Attitudes and values
- Skills
- Confidence
- Sense of responsibility
- Empowerment and accountability

- **Promotion of a culture of information**

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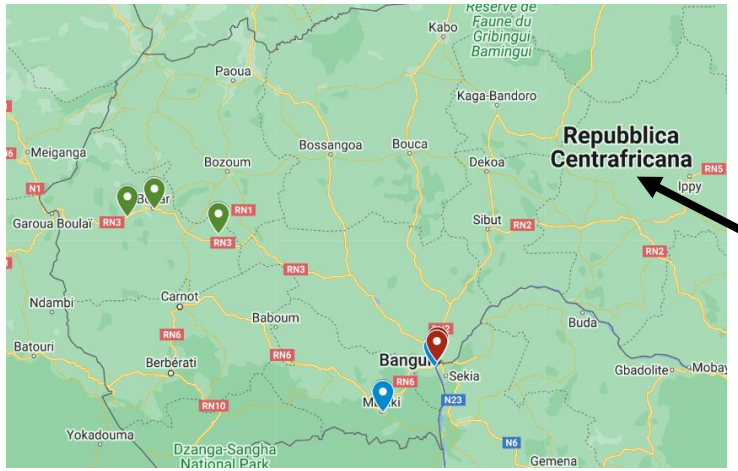
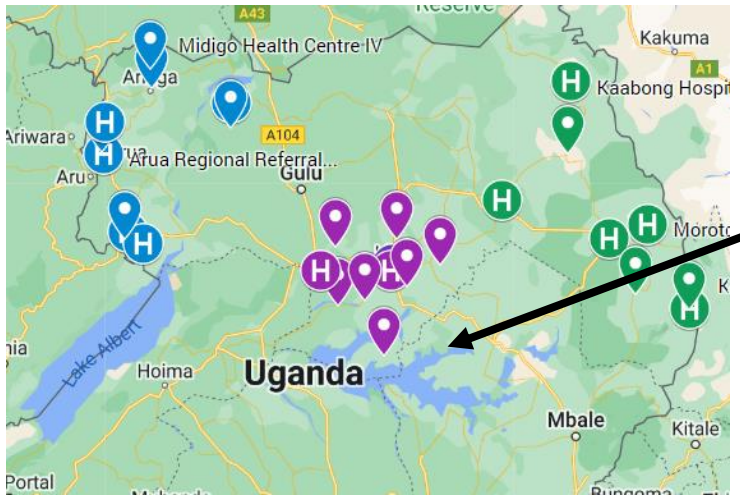
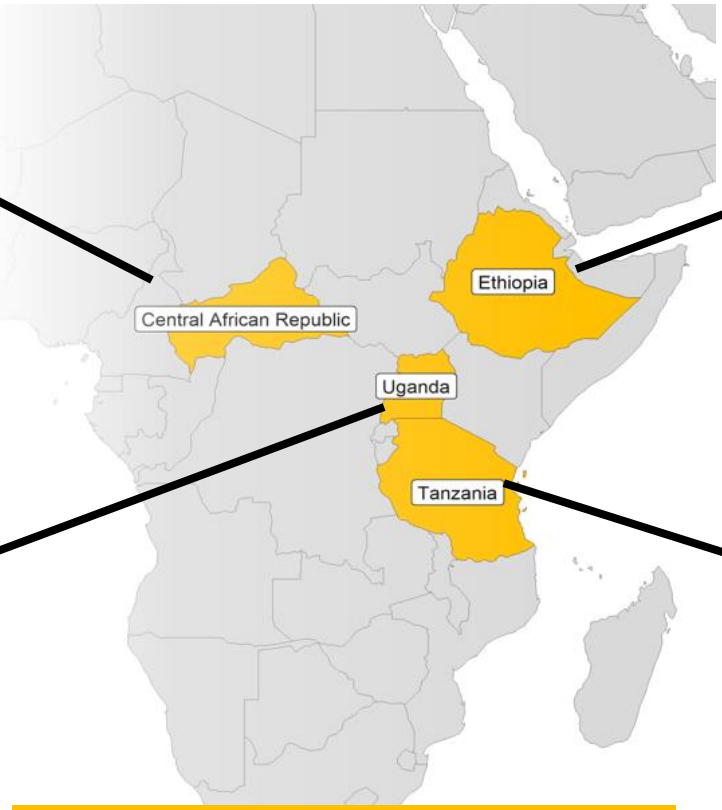
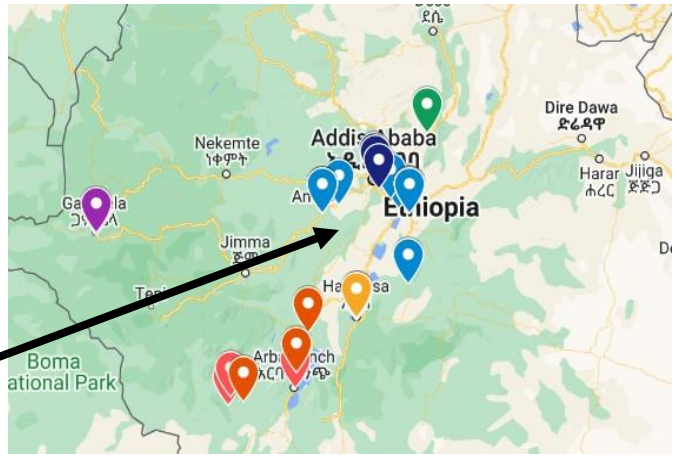
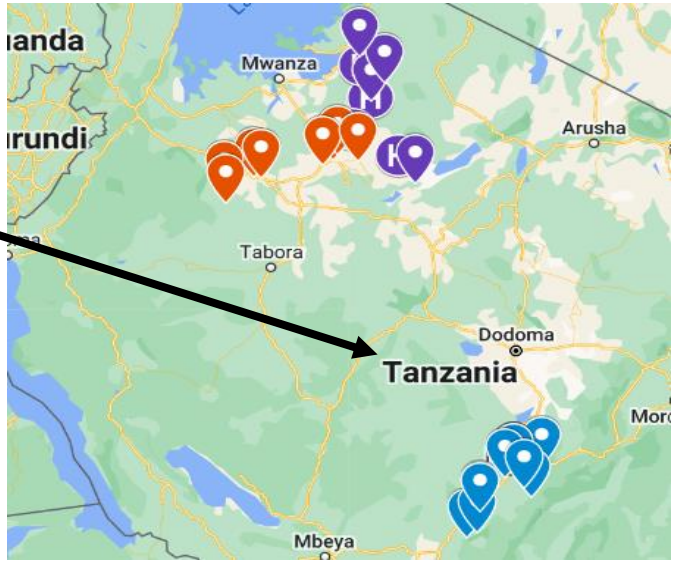
- ✓4 Countries: Central African Republic, Uganda, Tanzania, Ethiopia
- ✓15 Regions/City administration: including fragile settings, difficult to reach
- ✓150 sites across 4 countries




**In TANZANIA: 47 sites**

# IMPULSE Phase 1 Methods

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- ✓ Study design: Observational (cross sectional)
- ✓ Ethics: Clearance all countries + London School Hygiene & Tropical Medicine (GDPR compliant, aggregate data, written consent, password protected devices, encrypted data transfer)
- ✓ Duration:
  - ✓ Phase 1: August 2021 to May2024
  - ✓ Phase 2: June 2024 to 2026
- ✓ In Tanzania: 4 regions: Iringa, Shinyanga, Simiyu, Dar es Salaam/ Dodoma
- ✓ Funded by: Chiesi Foundation

# Tanzania sample - criterion based

Tanzania

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| | Type | Iringa | Shinyanga | Simiyu | Dar es Salaam | TOTAL |
|---|---|---|---|---|---|---|
| Health Facilities | 3rd level of referral health facility (National Hospital) | | | | 2 | 2 |
| | 3rd level of referral hospital (Regional Hospital) | 1 | 1 | 1 | | 3 |
| | 2nd level of referral (District Hospital) Public | 3 | 3 | 2 | | 8 |
| | 2nd level of referral (District Hospital) not-for-profit | 1 | 1 | 2 | | 4 |
| | 2nd level of referral (District Hospital) Private | 2 | 1 | | | 3 |
| | 1st level of referral (Primary Hospital / Health Centre) Public with CEmONC - except CAR BEmONC | 3 | 3 | 3 | | 9 |
| | 1st level of referral (Primary Hospital / Health Centre) not-for-profit with CEmONC - except CAR BEmONC | | | | | 0 |
| | 1st level of referral (Primary Hospital / Health Centre) Private with CEmONC - except CAR BEmONC | | | | | 0 |
| | Facilities Total | 10 | 9 | 8 | 2 | 29 |
| Data Offices | District /Subnational heatlh data Office | 5 | 4 | 5 | 1 (Dar es Salaam) | 14 |
| | Regional health health data office | 1 | 1 | 1 | | 3 |
| | Central Ministry of Health (MOH) | | | | 1 (Dodoma) | 1 |
| | Data offices Total | 6 | 5 | 6 | 1 | 18 |
| | Total sites | 16 | 14 | 14 | 3 | 47 |

**Data were collected : 2023**

**Using EN-MINI tools, open access launched 2022**

**https://www.data4impactproject.org/resources/en-mini-tools/**


Co-designed

in Tanzania and Bangaldesh

EN-BIRTH 2 study 2020-2022

✓ English and Ki-Swahili

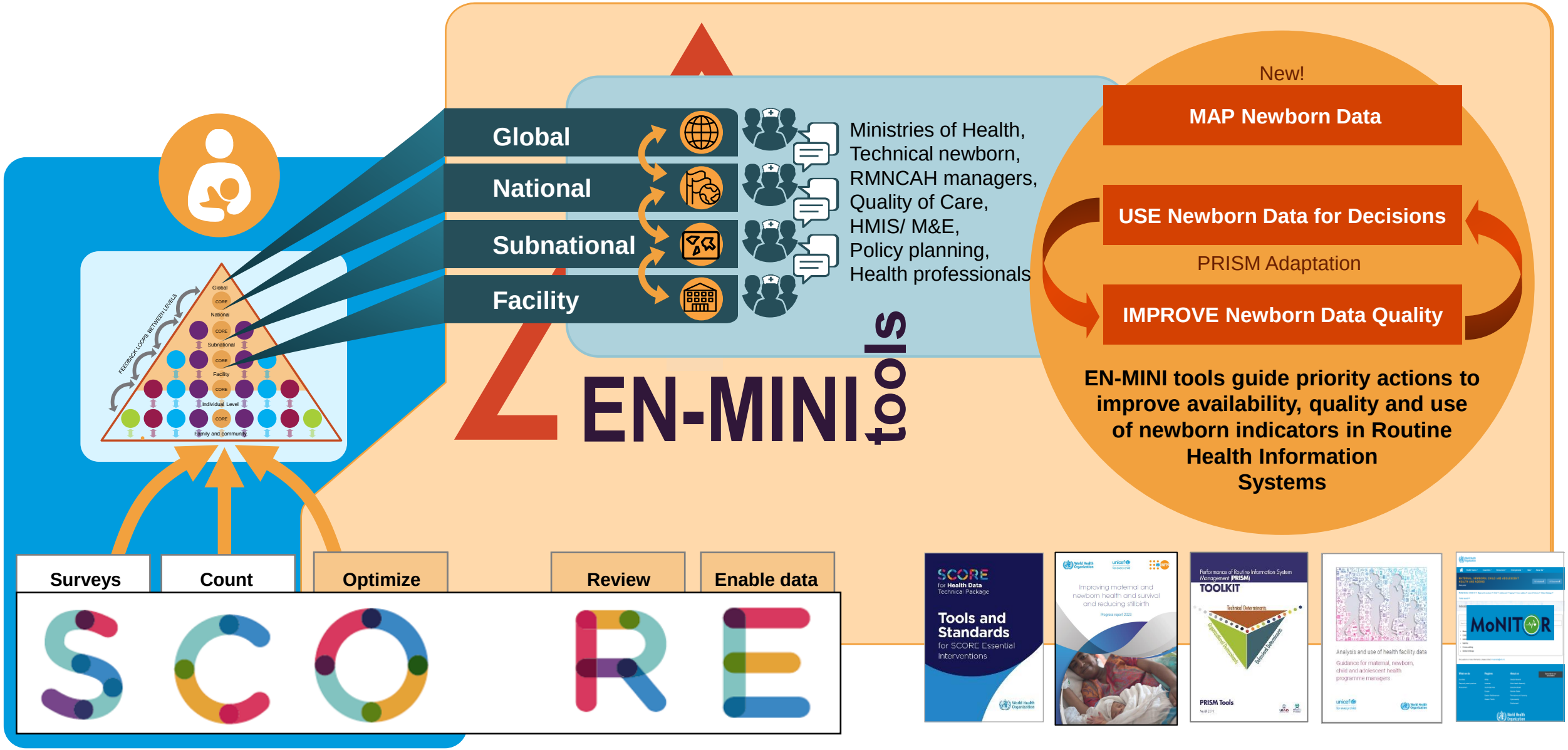
IMPULSE study contributed to:

✓ Version 2 EN-MINI tools

✓ French and Amharic translations

# Every Newborn-Measurement Improvement for Newborn & Stillbirth Indicators

## EN-MINI Tools for Routine Health Information Systems





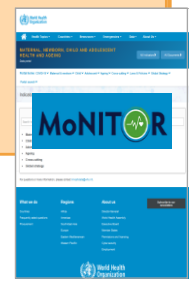






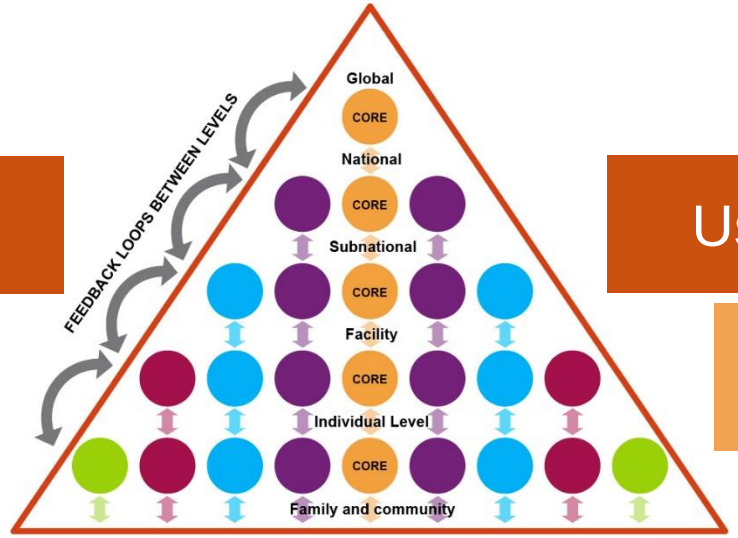




# Map Newborn Data

Map Newborn Data
EN-MINI Tool 0




## Improve Newborn Data Quality

RHIS Performance Diagnostic
EN-MINI-PRISM Tool 2

Facility/Office Assessment
EN-MINI-PRISM Tool 5

Neonatal individual
Case Notes/ Register
Potential EN-MINI Tool 7

new

## Use Newborn Data for Decisions

RHIS Overview
EN-MINI-PRISM Tool 1

Electronic RHIS Assessment
EN-MINI-PRISM Tool 3

Management Assessment
EN-MINI-PRISM Tool 4

Organizational/Behavioral Assessment
EN-MINI-PRISM Tool 6

Adapted from: Day LT, Moran AC, Jackson D, et al. (2019). Survive and Thrive: Transforming care for every small and sick newborn. Chapter 5, Figure 5.1. Geneva, Switzerland.

# EN-MINI-PRISM Tools

- Performance of Routine Information System Management (PRISM) tools
  - MEASURE Evaluation
- Comprehensive assessment RHIS performance
- **EN-MINI-PRISM adaptation uses priority/core newborn/stillbirth indicators**
- **User-friendly, automated analysis**

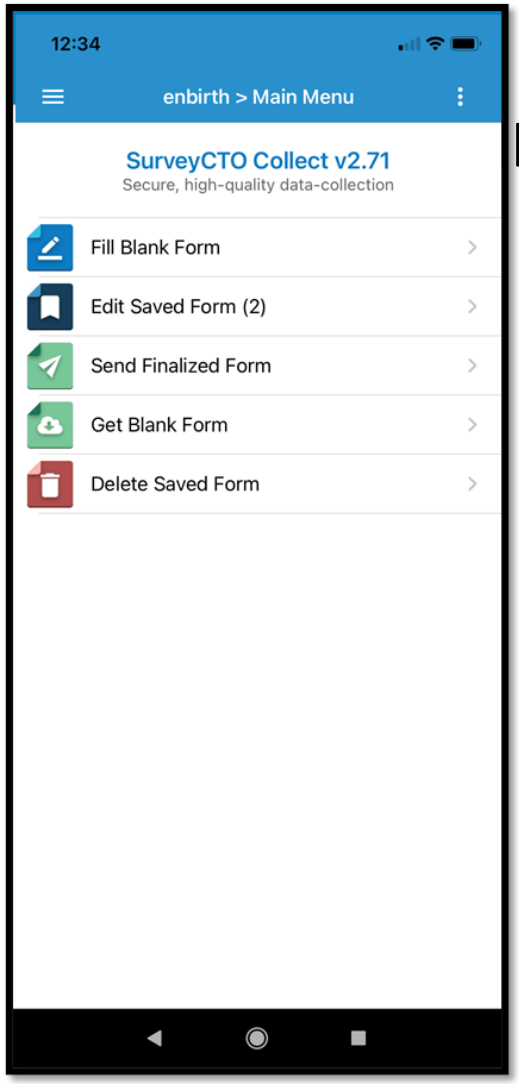

REF: Measure Evaluation (2019), Aqil et al (2009)

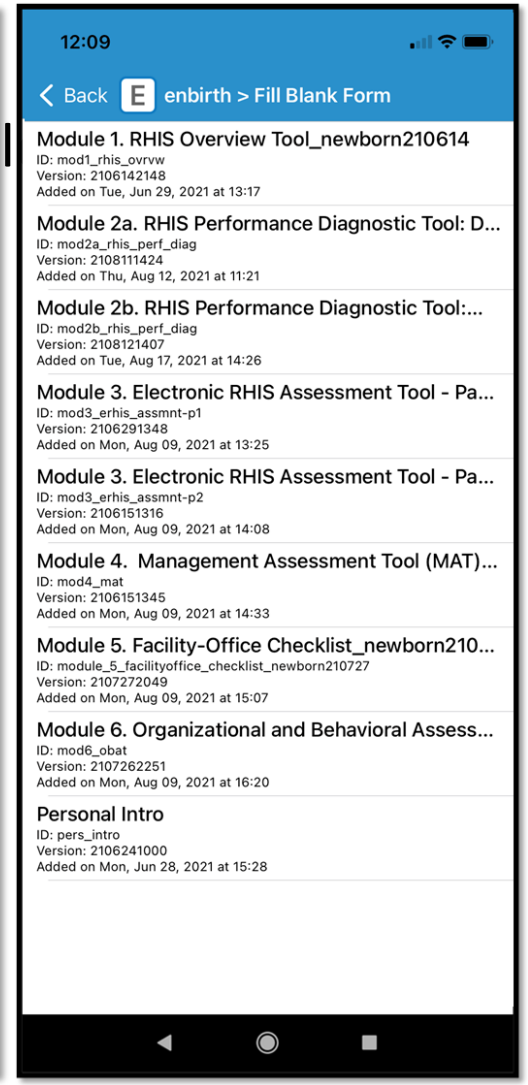
# EN-MINI-PRISM Tools
# ready-to-use ODK forms for phones/ tablets

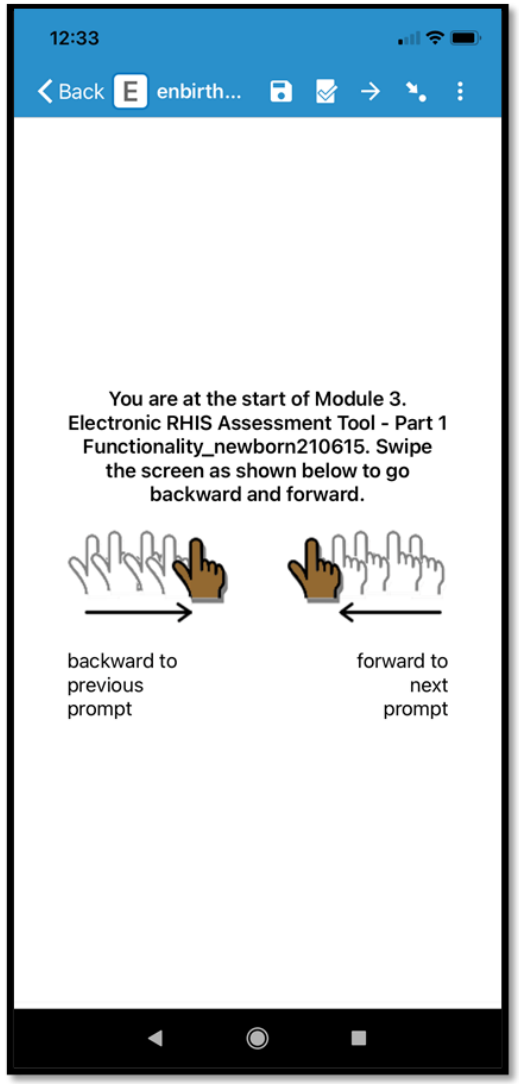
SurveyCTO

EN-MINI tools

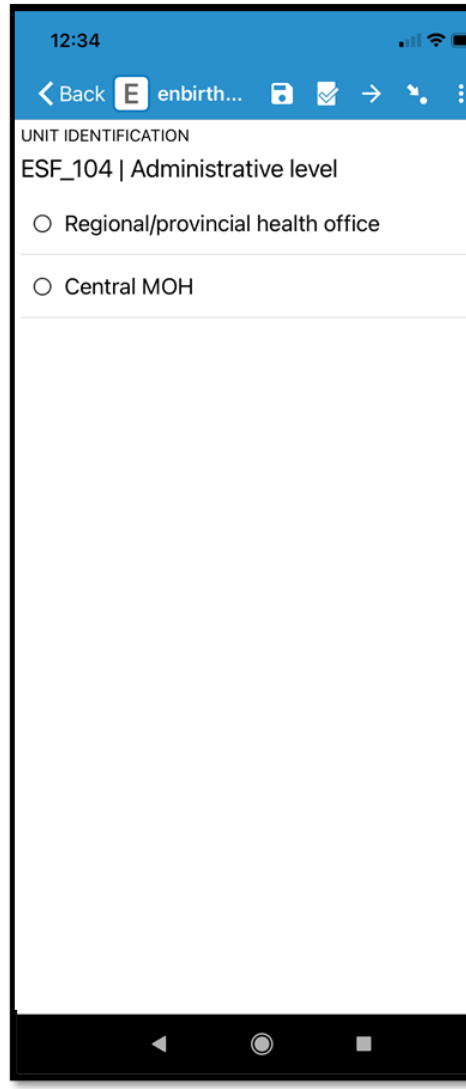
**GDPR compliant**







# IMPULSE Data Collection

Tanzania

IMPULSE
IMProving qUaLity and uSE of newborn indicators

- Tanzania team co-trained other CAR, Ethiopia, Uganda study co-ordinators
  - Trained with standard EN-MINI Training tools and Standard operating procedures (SOP) for data collection predefined
  - 1) field practices; 2) Q&A sessions and document 3) with ongoing WhatsApp Group
  - Tools pilot tested in 2 countries before data collection
- Data quality assurance:
  - Digital tools – validations for data completeness and plausibility.
  - Data collectors supervised by experienced study coordinators.
- Monitoring & Evaluation file for site data timeliness, completeness, and sample size collected.
- Interim analyses were conducted, by research statisticians' part-way to check data completeness, internal consistency, plausibility.

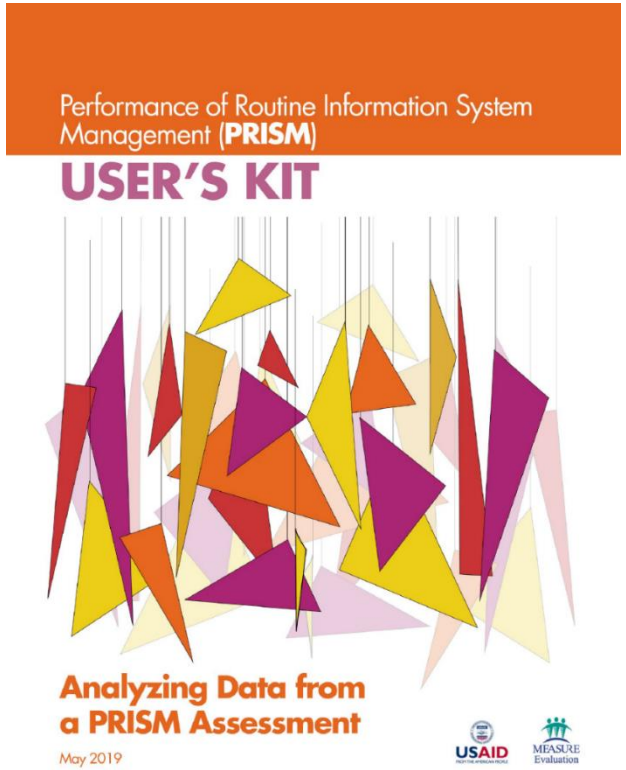
# IMPULSE Dataset and data analyses conducted

Dataset: Comprehensive dataset across all PRISM determinants

Data analyses:

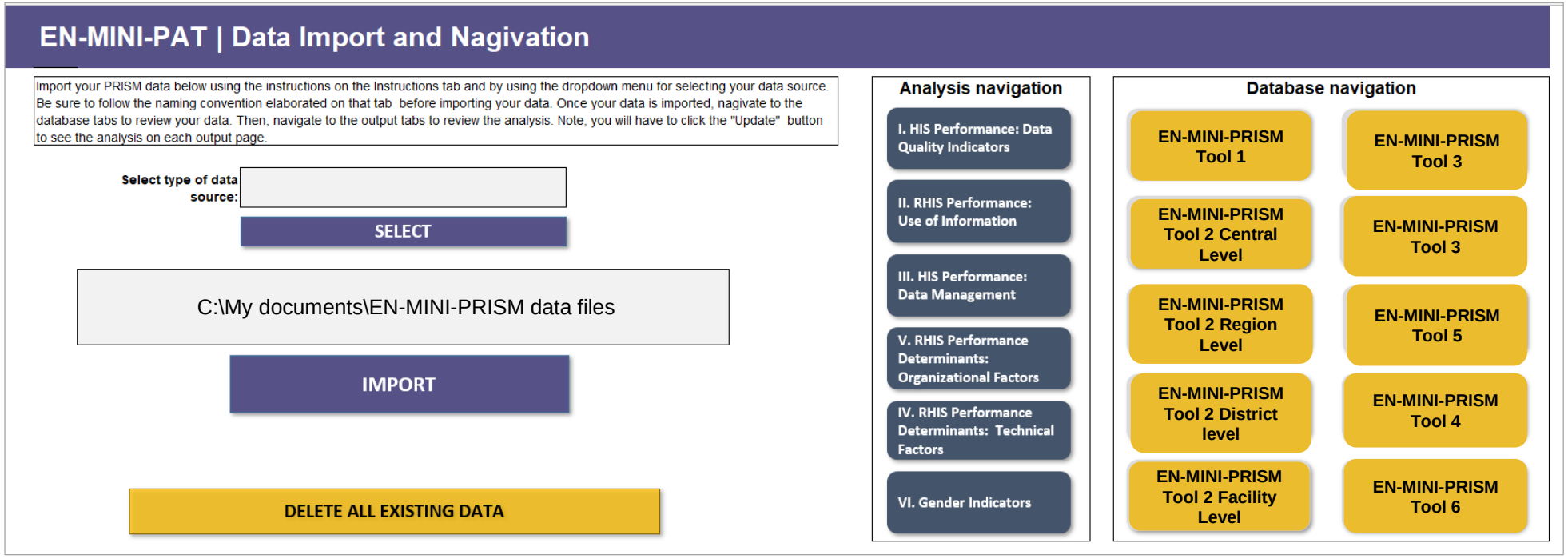
1. Research analyses – based on PRISM framework
2. Validated PRISM analysis plan “User’s Kit”

   EN-MINI PRISM Analysis Tool (EN-MINI PAT)



# Data Analysis: EN-MINI-PRISM Analysis Tool

**Automated data analysis**



# EN-MINI-PRISM Analysis Tool

# Detailed tables……heat-mapped summary tables

Page navigation

UPDATE | CENTRAL | REGION | DISTRICT | FACILITY

*Individual scores and mean score of the quality of supervision at the HF level*

Table 5D.3

| Data Source – Module IIb: RHIS Performance Diagnostic Tool (HF Level) | | | |
|---|---|---|---|
| **Indicators** | **Numerator** | **Denominator** | **%** |
| Supervisor checked the data quality | 13 | 14 | 93% |
| Supervisor used checklist to assess data quality | 13 | 14 | 93% |
| During visit, district supervisor discussed health facility's performance based on RHIS information | 13 | 14 | 93% |
| Supervisor helped respondent make a decision or take corrective action based on the discussion | 12 | 14 | 86% |
| Supervisor sent a report/written feedback on the last supervisory visit(s) | 7 | 14 | 50% |
| **Global quality of supervision** | | | 83% |

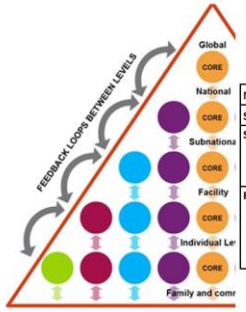
## Summary tables for Use of Information indicators

| | | | District | | | Facility | | |
|---|---|---|---|---|---|---|---|---|
| | **Indicator** | | **Numerator** | **Denominator** | **%** | **Numerator** | **Denominator** | **%** |
| **Type of issues covered in annual plans demonstrating RHIS data use** | **Annual plan contains activities and/or targets related to improving or addressing:** | Service coverage | 0 | 2 | 0% | 7 | 7 | 100% |
| | | Health facility performance | 2 | 2 | 100% | 7 | 7 | 100% |
| | | Neonatal morbidity diagnoses | 2 | 2 | 100% | 7 | 7 | 100% |
| | | Emerging issues/epidemics | 2 | 2 | 100% | 5 | 7 | 71% |
| | | Medicine stock outs | 2 | 2 | 100% | 6 | 7 | 86% |
| | | HR management | 2 | 2 | 100% | 7 | 7 | 100% |
| | | Gender disparity | 0 | 2 | 0% | 4 | 7 | 57% |
| **Data dissemination outside the health sector** | **Need to submit/present health indicator performance reports to a central council of public representatives/civil administration** | | 2 | 2 | 100% | 16 | 16 | 100% |
| | **Proportion of sites using/sharing data from the health indicators performance report** | Reports/presentations use data from the RHIS to report on the health sector's progress | 2 | 2 | 100% | 12 | 16 | 75% |
| | | Website is updated at least annually for accessing the central level's RHIS data by the general public | 1 | 2 | 50% | 0 | 16 | 0% |
| | | Central level performance data shared with the general public via bulletin board chalkboard, and/or local publication | 2 | 2 | 100% | 13 | 16 | 81% |

# Data Analysis – EN-MINI-PRISM Analysis Tool

# Report-ready figures

## Improve Newborn Data Quality

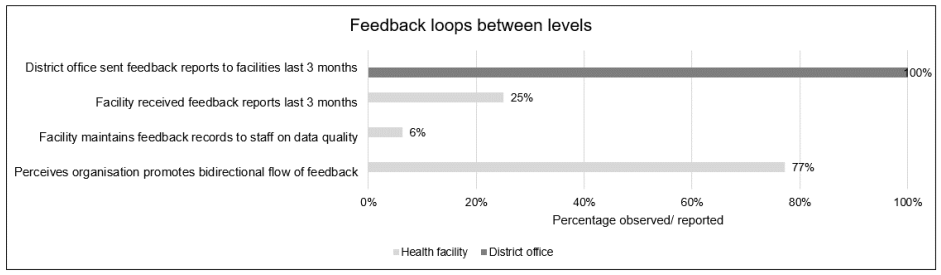



| | | | | Denominators Total Birth | Denominators Live birth | Newborn Data Quality Criteria |
|---|---|---|---|---|---|---|
| National - | Central | digital | eRHIS | not assessed | | Accuracy - database entry exact match regional summary reports |
| Subnational - | Regional | digital | eRHIS | not assessed | | Accuracy - database entry exact match facility summary reports |
| Subnational - | District | digital | eRHIS | 100% | 100% | Accuracy - database entry exact match facility reports |
| | | | | 91% | 89% | **Completeness** of facility monthly reports |
| | | paper | Summary Form report | 100% | 100% | **Availability** of facility monthly reports |
| Facility | | paper | Summary Form report | 98% | 98% | **Accuracy** of monthly report exactly matches register data |
| | | | | 94% | 96% | **Completeness** of monthly report submitted |
| | | | | 96% | 96% | **Availability** of monthly report |
| | | paper | Register | 88% | 88% | **Completeness** of register primary source data |

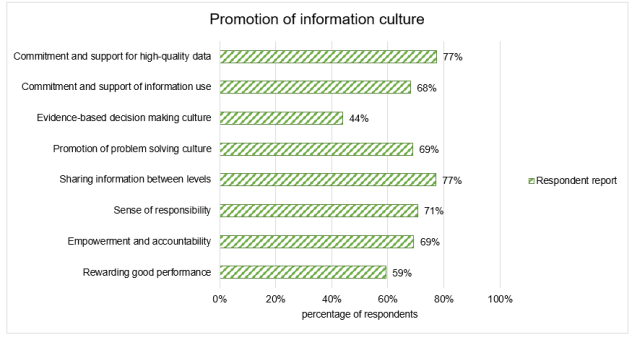
## Improve Newborn Data Quality

| | | District review, n=2 offices | | | Facility review, n=16 visits | | | |
|---|---|---|---|---|---|---|---|---|
| | | Monthly reports, n=50 facilities | | | Monthly reports, n=3 months | | | Registers, n=3 months |
| | | Availability of facility monthly reports | Completeness of facility monthly reports | Accuracy of database entry exactly matches facility reports | Availability of monthly report | Completeness of monthly report | Accuracy of monthly report from register | Completeness of register primary source data |
| **Indicator domain** | **Select Core Indicator data element** | | | | | | | |
| **IMPACT** | Stillbirth | Numerator | 100% | 10% | 100% | 96% | 96% | 97% | 98% |
| | Institutional neonatal deaths | Numerator | 100% | 6% | 100% | 100% | 100% | 100% | 100% |
| | Low birth weight | Numerator | 100% | 20% | 73% | 96% | 96% | 86% | 94% |
| **COVERAGE: Every Newborn** | Early initiation Breastfeeding | Numerator | 100% | 81% | 100% | 96% | 94% | 94% | 81% |
| **COVERAGE: Small or sick newborns** | Bag-mask-ventilation | Numerator | 100% | 13% | 100% | 96% | 90% | 93% | 94% |
| | KMC | Numerator | 64% | 9% | 100% | 100% | 100% | 100% | 100% |
| | Neonatal sepsis | Numerator | 100% | 23% | 100% | 100% | 100% | 100% | 100% |
| **Maternal Tracer** | Uterotonics prevent PPH | Numerator | 100% | 88% | 100% | 96% | 96% | 97% | 90% |
| **Indicator denominators** | Total Births | Denominator | 100% | 91% | 100% | 96% | 94% | 98% | 88% |
| | Live births | Denominator | 100% | 89% | 100% | 96% | 96% | 98% | 88% |

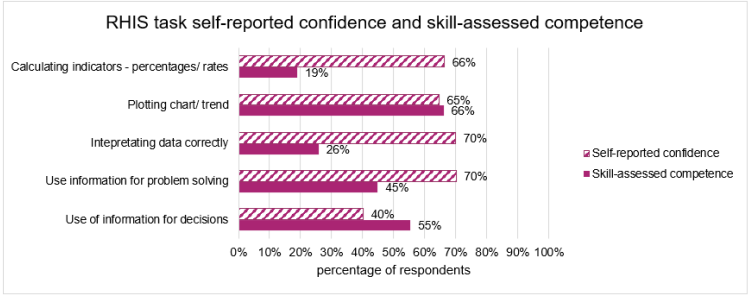
## Improve Newborn Data Quality




## Use Newborn Data for Decisions



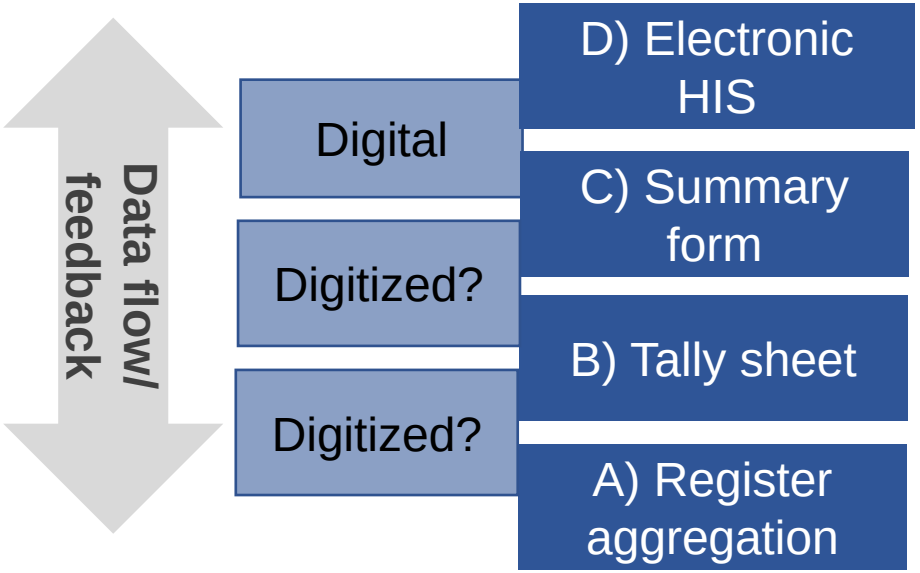

## Use Newborn Data for Decisions

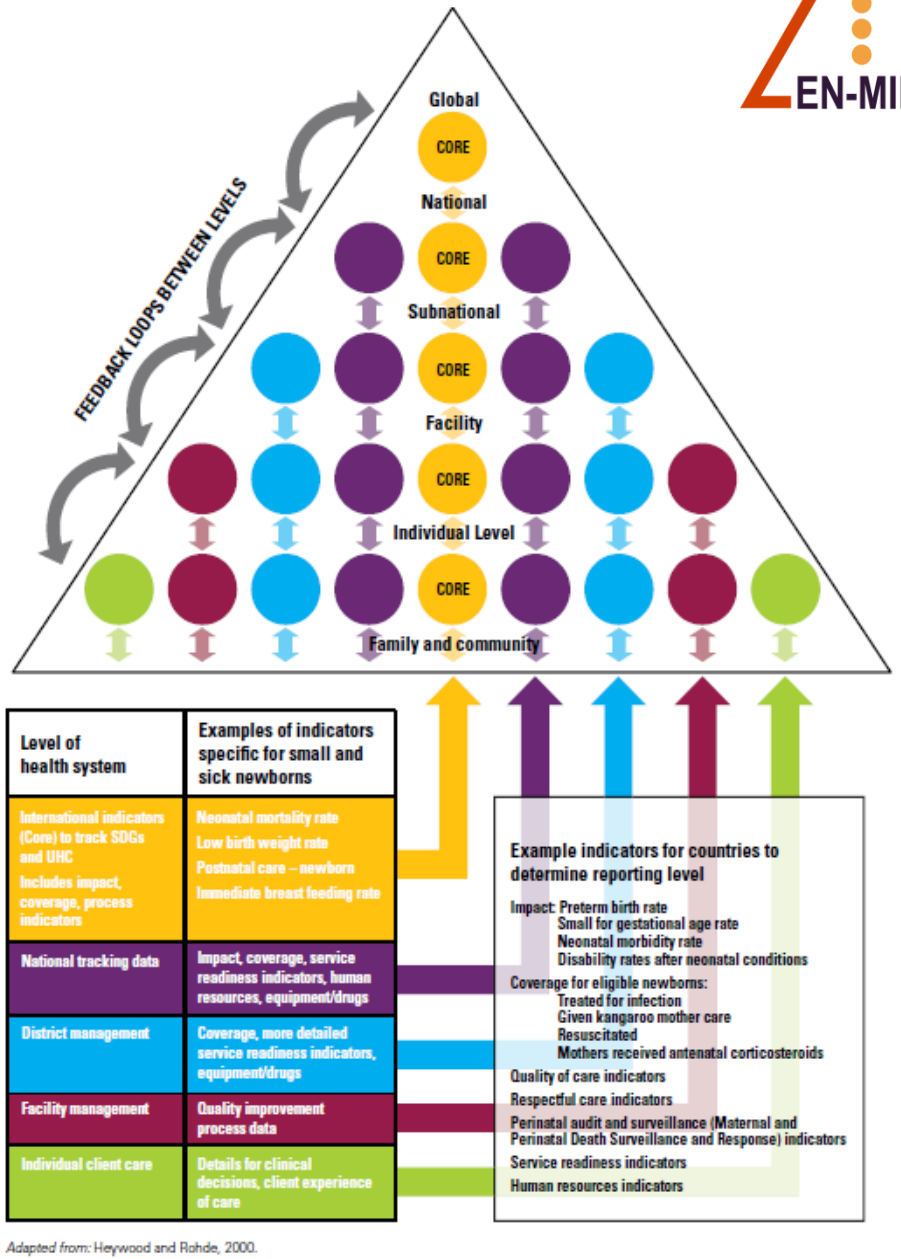


# IMPULSE objective 1

1. Map newborn indicator data availability in existing routine health information systems (RHIS)

# RHIS Data Collection, Flow and Transmission



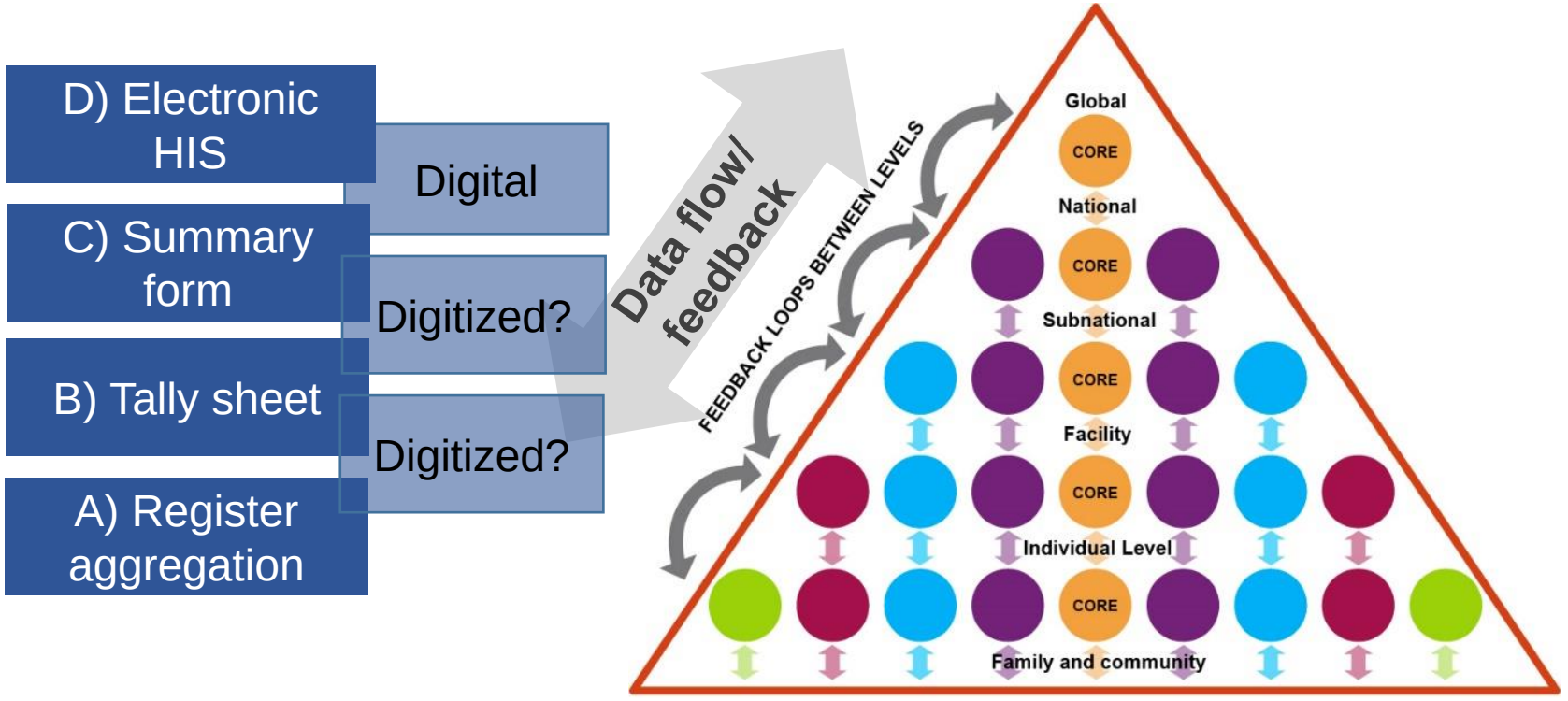



# RHIS
# Data Collection, Flow and Transmission

Tanzania

IMPULSE
IMProving qUaLity and uSE of newborn indicators

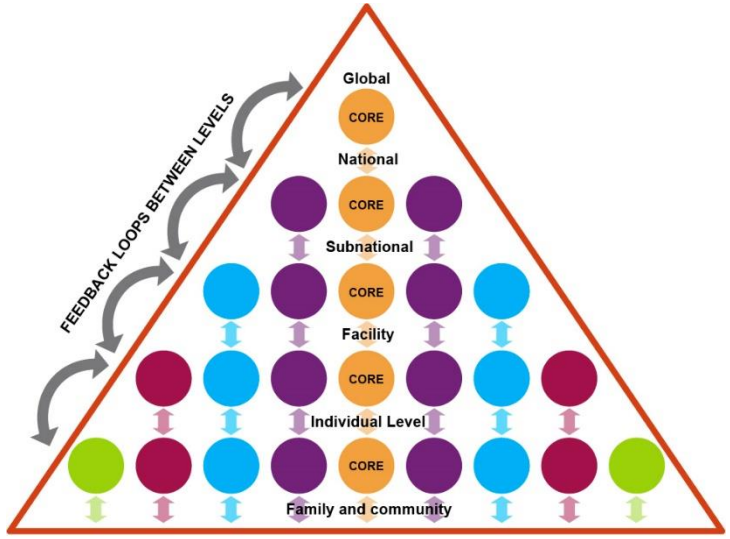
- ✓ DHIS2
  all maternal, newborn forms
- ✓ Summary / Reporting forms
- ✓ All paper-based registers
  (Delivery Register, PNC etc.



# EN-MINI Tool 0 Mapping Report

## MAP Newborn Data

Map Newborn Data
EN-MINI Tool 0




# EN-MINI Tool 0 Mapping Report - DHIS2

## Tanzania

| Indicator name | Type | Numerator | Denominator | Full indicator |
|---|---|---|---|---|
| Institutional maternal mortality ratio (per 100,000 deliveries) | Impact | All definitions exact | All definitions exact | All definitions exact |
| Stillbirth rate in a health facility | Impact | All definitions exact | All definitions exact | All definitions exact |
| Pre-discharge neonatal mortality rate | Impact | All definitions exact | All definitions exact | All definitions exact |
| Low birth weight among livebirths (%) | Impact | All definitions exact | All definitions exact | All definitions exact |
| Preterm birth (facility based) | Impact | Not available | All definitions exact | Not available |
| Caesarean section rate | Outcome | All definitions exact | All definitions exact | All definitions exact |
| Postnatal care for women (Facility-based) | Outcome | All definitions exact | All definitions exact | All definitions exact |
| Postnatal care for newborns (Facility-based) | Outcome | All definitions exact | All definitions exact | All definitions exact |
| Newborns breastfed within one hour of birth | Outcome | All definitions exact | All definitions exact | All definitions exact |
| Newborn resuscitation with bag and mask | Outcome | All definitions exact | All definitions exact | All definitions exact |
| Premature (LBW) babies initiating KMC | Outcome | All definitions exact | All definitions exact | All definitions exact |
| Newborns treated for neonatal sepsis/infection | Outcome | All definitions exact | All definitions exact | Not available |
| Chlorhexidine cord cleansing | Outcome | Not available | All definitions exact | Not available |
| Antenatal corticosteroid use | Outcome | Not available | All definitions exact | Not available |

**Strengths:**

Nearly all nationally recommended newborn indicators tracked in DHIS2

**Gaps:**

Preterm birth,
Sespis
Antenatal Corticosteroids

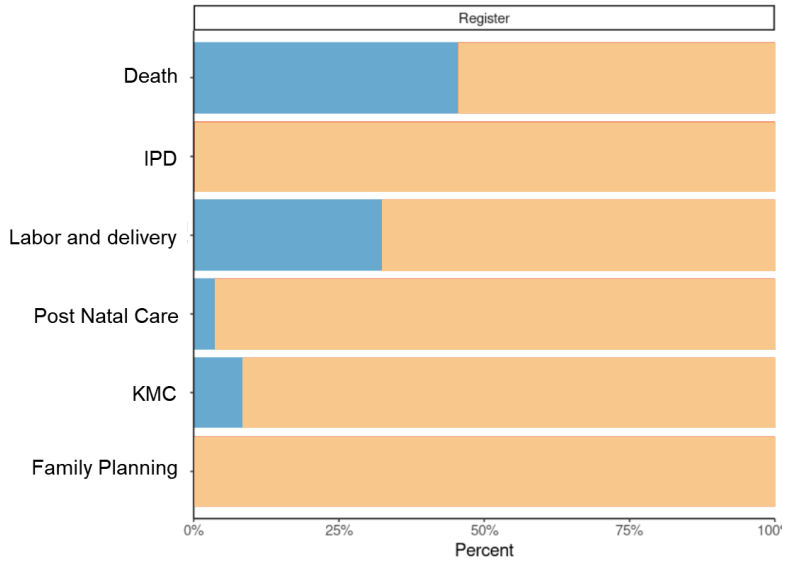
# EN-MINI Tool 0 Mapping Report

## Section 5: Documentation Burden – Routine Register level

Tanzania

IMPULSE
IMProving qUaLity and uSE of newborn indicators

### Tanzania



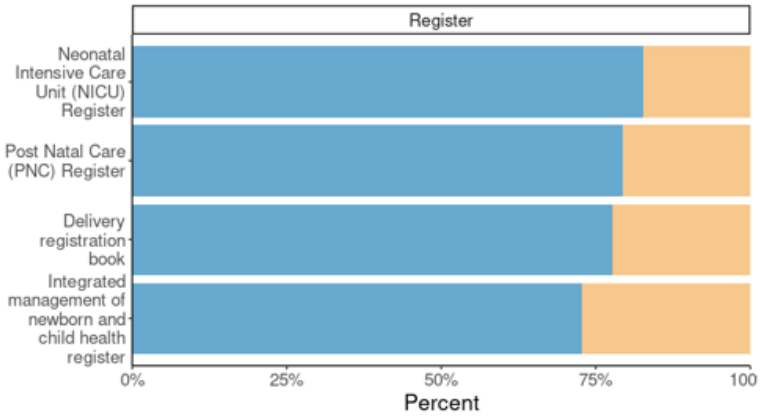

**Proportion of newborn data elements in each register needed for**

| WHO/nationally recommended Core/optional indicator data elements | Other indicator data elements |
|---|---|

**Most data elements in registers are not needed for newborn core/ optional indicator measurement**

**Consider reducing register data elements…**

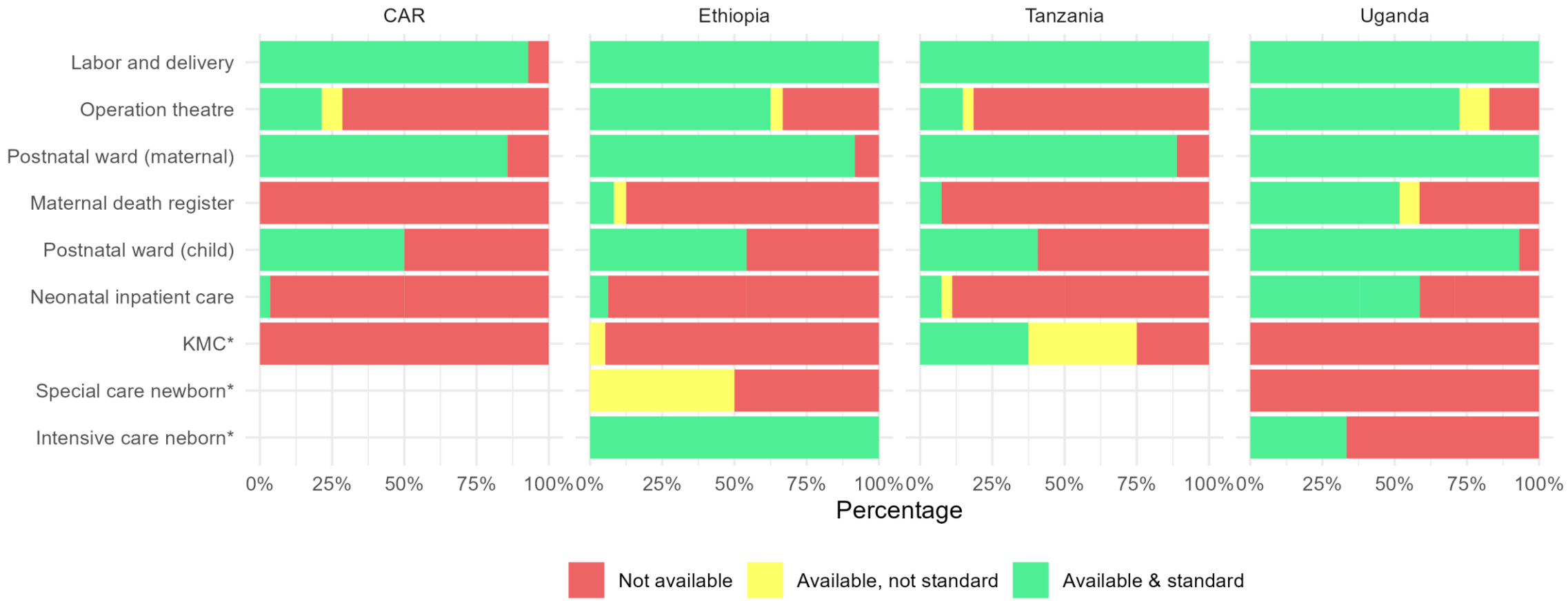
### Ethiopia



# Paper-based registers Availability in 2023 n = 27 health facilities (Dar to be added)

Tanzania

IMPULSE
IMProving qUaLity and uSE of newborn indicators



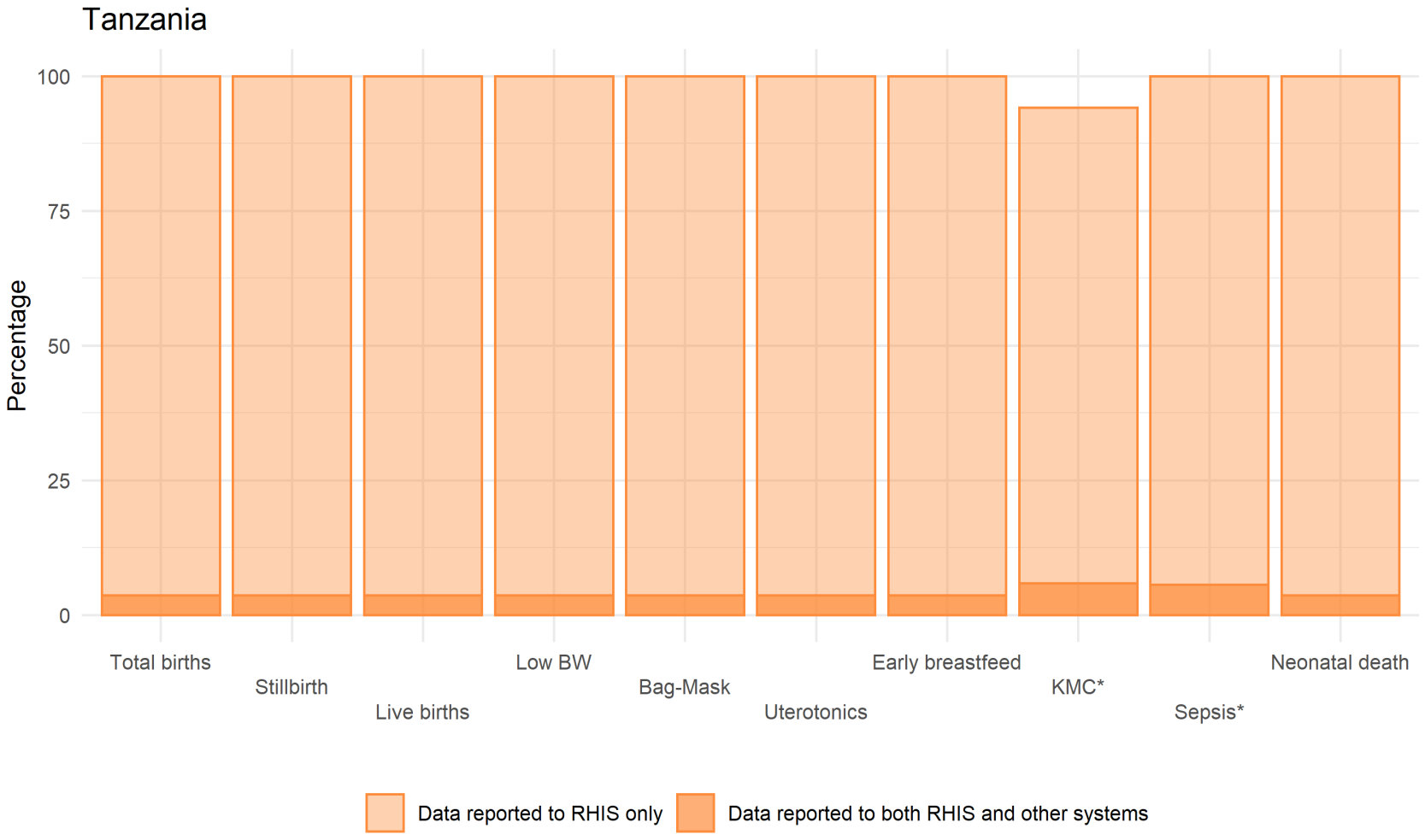

Novel research analyses

# Data elements reported from health facilities

Tanzania

IMPULSE
IMProving qUaLity and uSE of newborn indicators

n = 27 health facilities (Dar to be added)




**Strengths:**

- ❑ Newborn/ stillbirth data reported from nearly all health facilities assessed
- ❑ Mainly reported in RHIS

**Key gaps:**

- ❑ KMC missing in ~10% health facilities

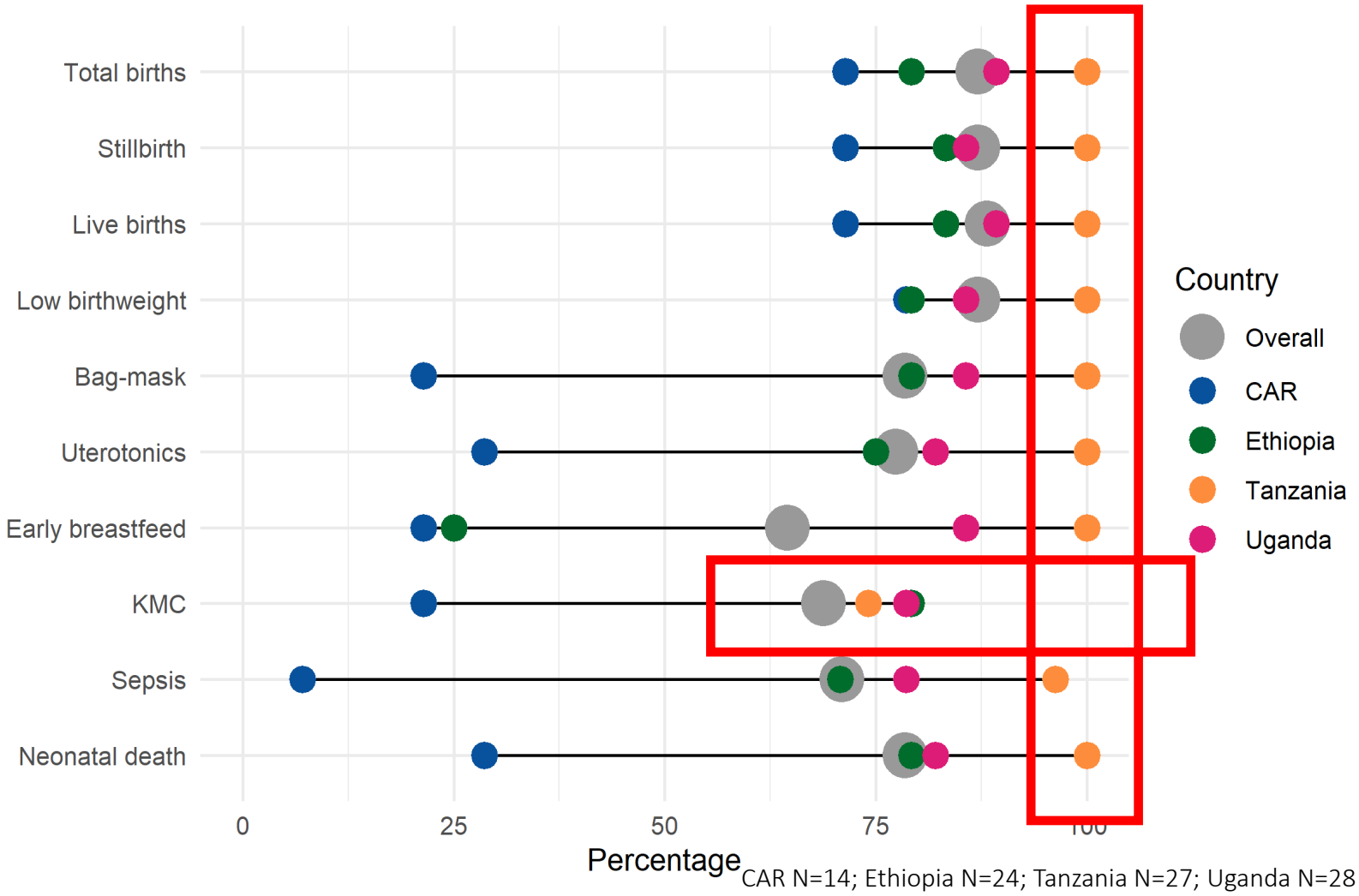
Novel analysis (not included in PRISM standard analysis)

# Data element definitions at health facilities

n = 27 health facilities (Dar to be added)

Tanzania

IMPULSE
IMProving qUaLity and uSE of newborn indicators




CAR N=14; Ethiopia N=24; Tanzania N=27; Uganda N=28

**Strengths:**

- ❑ Nearly all health facilities have a written definition for most newborn and stillbirth indicators

**Gaps:**

- ❑ Definitions for KMC present in only 74% of the facilities

# IMPULSE objective 2

Tanzania

IMPULSE
IMProving qUaLity and uSE of newborn indicators

2. Assess newborn key indicator data quality in existing RHIS.

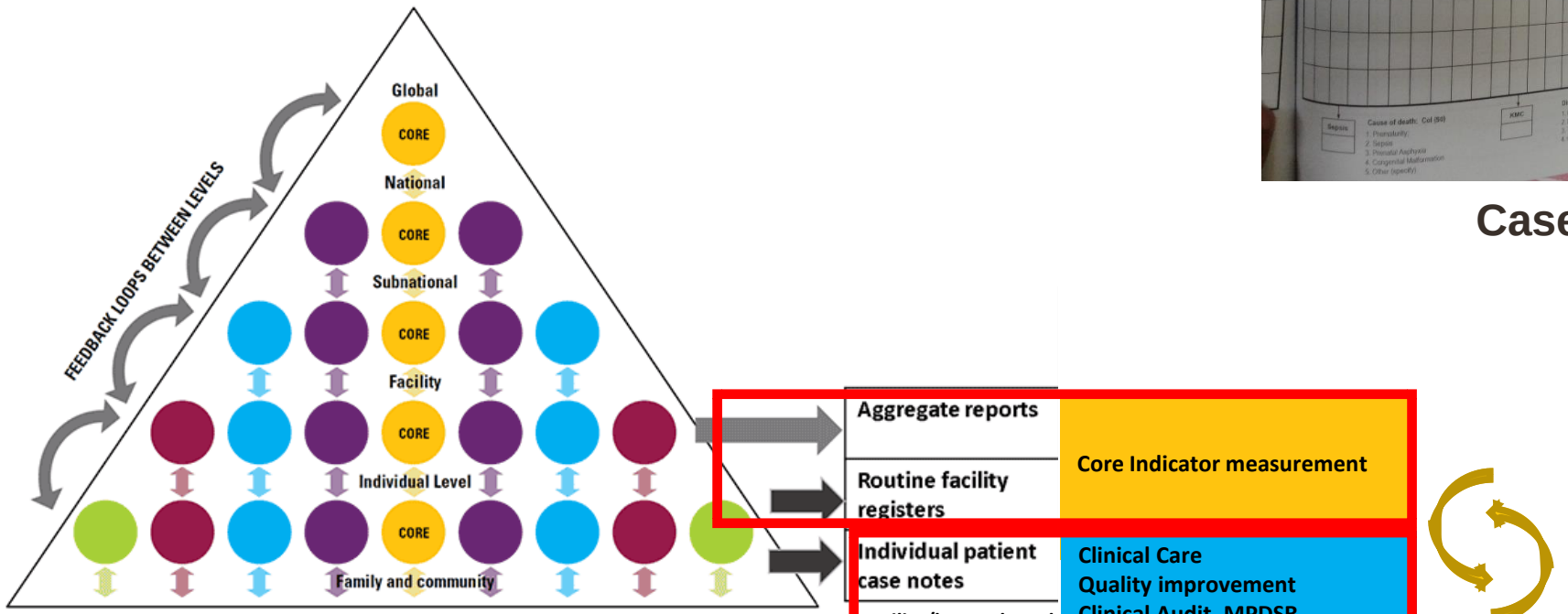
Tanzania

IMPULSE
IMProving qUaLity and uSE of newborn indicators

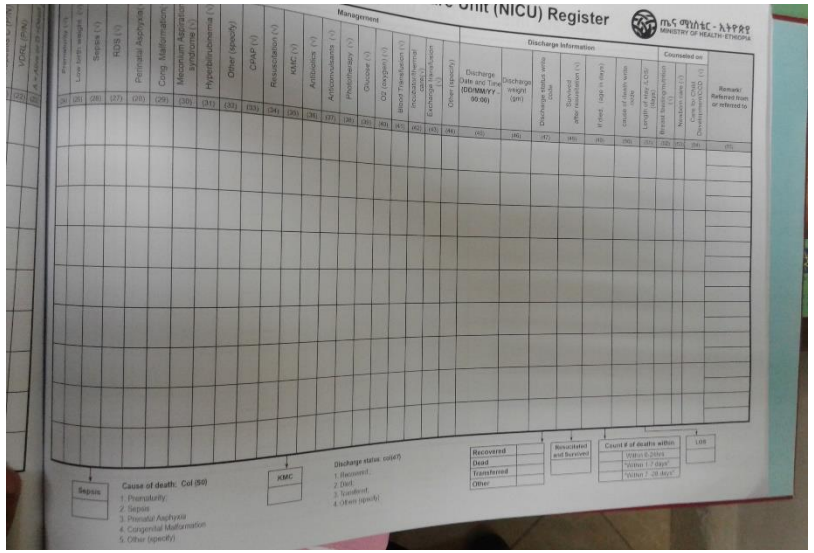
# Data sources – registers and case notes

Current indicator data source typically routine registers.

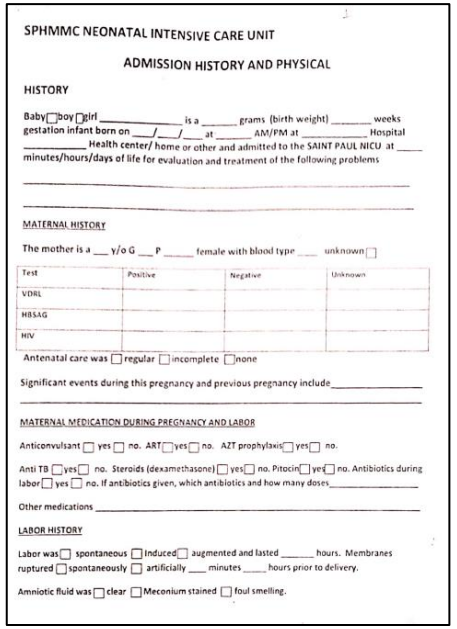
Exploring individual case notes – used by health workers for clinical information potential especially for quality-of-care measurement




**Newborn Register**




**Case notes**



SPHMMC NEONATAL INTENSIVE CARE UNIT

ADMISSION HISTORY AND PHYSICAL

HISTORY

Baby ☐boy ☐girl _____ is a _____ grams (birth weight) _____ weeks gestation infant born on ___/___/___ at _____ AM/PM at _____ Hospital _____ Health center/ home or other and admitted to the SAINT PAUL NICU at ____ minutes/hours/days of life for evaluation and treatment of the following problems

MATERNAL HISTORY

The mother is a ___ y/o G ___ P _____ female with blood type ____ unknown ☐

| Test | Positive | Negative | Unknown |
|---|---|---|---|
| VDRL | | | |
| HBSAG | | | |
| HIV | | | |

Antenatal care was ☐ regular ☐ incomplete ☐ none

Significant events during this pregnancy and previous pregnancy include _____

MATERNAL MEDICATION DURING PREGNANCY AND LABOR

Anticonvulsant ☐ yes ☐ no. ART ☐ yes ☐ no. AZT prophylaxis ☐ yes ☐ no.

Anti TB ☐ yes ☐ no. Steroids (dexamethasone) ☐ yes ☐ no. Pitocin ☐ yes ☐ no. Antibiotics during labor ☐ yes ☐ no. If antibiotics given, which antibiotics and how many doses _____

Other medications _____

LABOR HISTORY

Labor was ☐ spontaneous ☐ Induced ☐ augmented and lasted _____ hours. Membranes ruptured ☐ spontaneously ☐ artificially ____ minutes ____ hours prior to delivery.

Amniotic fluid was ☐ clear ☐ Meconium stained ☐ foul smelling.

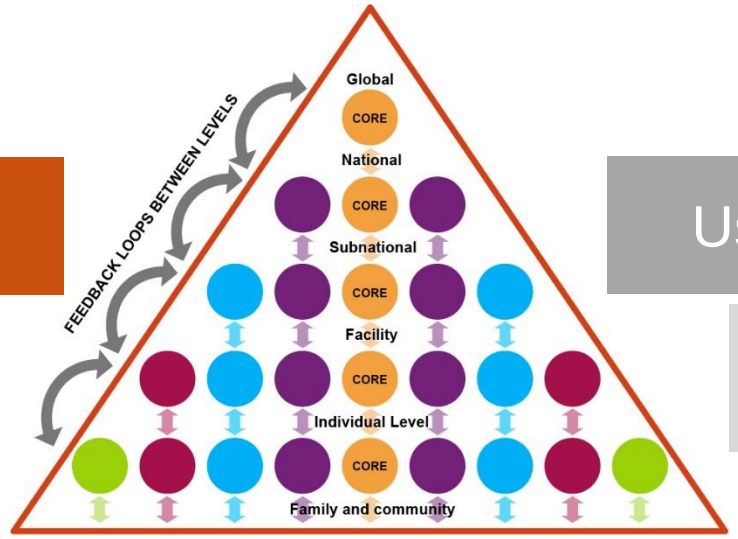
## Map Newborn Data

Map Newborn Data
EN-MINI Tool 0

## Improve Newborn Data Quality

RHIS Performance Diagnostic
EN-MINI-PRISM Tool 2

Facility/Office Assessment
EN-MINI-PRISM Tool 5




## Use Newborn Data for Decisions

RHIS Overview
EN-MINI-PRISM Tool 1

Electronic RHIS Assessment
EN-MINI-PRISM Tool 3

Management Assessment
EN-MINI-PRISM Tool 4

Organizational/Behavioral Assessment
EN-MINI-PRISM Tool 6

Adapted from: Day LT, Moran AC, Jackson D, et al. (2019). Survive and Thrive: Transforming care for every small and sick newborn. Chapter 5, Figure 5.1. Geneva, Switzerland.

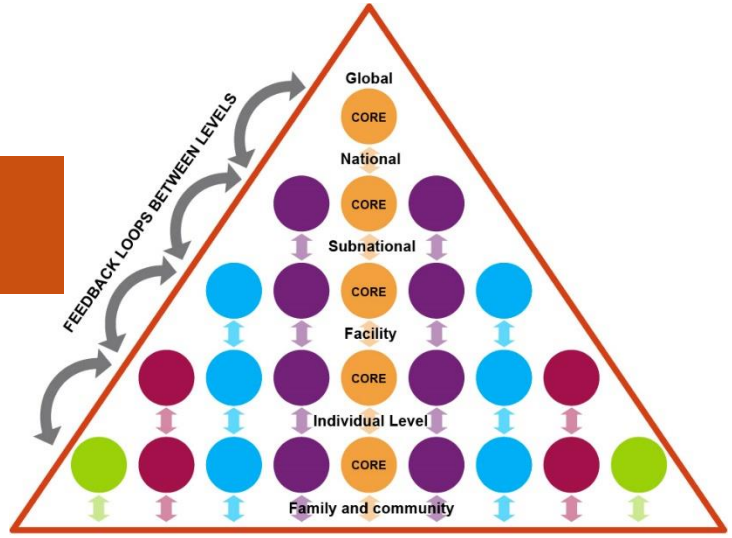
## Tools to help you

- Assess current data quality
- Explore quality assurance mechanisms

# Improve Newborn Data Quality

RHIS Performance Diagnostic
EN-MINI-PRISM Tool 2

Facility/Office Assessment
EN-MINI-PRISM Tool 5



# We assessed data quality of:

## WHAT

## 10 Indicators

2 "Denominators":

1. Total births (livebirths and stillbirths)
2. Live births

8 "Numerators":

1. Stillbirth
2. low birth weight
3. early initiation breastfeeding
4. bag-mask ventilation
5. kangaroo mother care
6. neonatal sepsis
7. neonatal death
8. maternal uterotonics

## WHERE

### Register

1. Delivery Register
2. NICU Register
3. PNC Register
4. IMNCI Register

### Summary form (montly form)

1. "Monthly service delivery reporting form"

### Electronic Health Information System

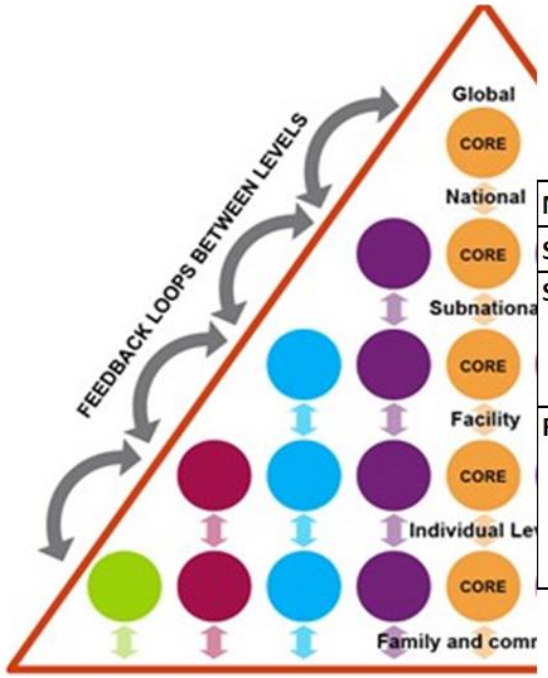
DHIS2

# Data quality domains for newborn and stillbirth denominators

n=49 sites (29 health facilities, 14 data offices)

Tanzania

IMPULSE
IMProving qUaLity and uSE of newborn indicators




| | | | | Denominators | | Newborn Data Quality Criteria |
|---|---|---|---|---|---|---|
| | | | | Total Birth | Live birth | |
| National - | Central | digital | eRHIS | entered district level | | Accuracy - database entry exact match regional summary reports |
| Subnational - | Regional | digital | eRHIS | | | Accuracy - database entry exact match facility summary reports |
| Subnational - | District | digital | eRHIS | -193% | -227% | Accuracy - database entry exact match facility reports |
| | | | | 89% | 89% | **Completeness** of facility monthly reports |
| | | paper | Summary Form report | 91% | 89% | **Availability** of facility monthly reports |
| Facility | | paper | Summary Form report | 96% | 94% | **Accuracy** of monthly report exactly matches register data |
| | | | | 99% | 100% | **Completeness** of monthly report submitted |
| | | | | 99% | 100% | **Availability** of monthly report |
| | | paper | Register | 98% | 98% | **Completeness** of register primary source data |

**Strengths:**

- ❑ Facility source data complete

**Gaps:**

- ❑ District level – reports missing and over-reporting into DHIS2

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# Data quality domains for newborn and stillbirth numerators

n=49 sites (29 health facilities, 14 data offices)

Tanzania

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IMProving qUaLity and uSE of newborn indicators

**Strengths:**

- ❑ Facility source data complete

**Gaps:**

- ❑ Facility data accuracy register to report for half data elements
- ❑ District level availability, completeness and accuracy for half data elements

| | | | District officie review, n=18 offices | | | Facility review, n=29 | | |
|---|---|---|---|---|---|---|---|---|
| | | | Monthly reports, n=all facilities reportring | | | Monthly reports, n=3 months | | |
| | | | Availability | Completeness | Accuracy | Availability | Completeness | Accuracy |
| | | | of facility monthly reports | of facility monthly reports | of database entry exactly matches facility reports | of monthly report | of monthly report | of monthly report from register |
| **Indicator domain** | **Select Core Indicator data element** | | | | | | | |
| **IMPACT** | Stillbirth | Numerator | 74% | 74% | 67% | 100% | 100% | 86% |
| | Institutional neonatal deaths | Numerator | 74% | 74% | 99% | 93% | 93% | 88% |
| | Low birth weight | Numerator | 76% | 76% | 72% | 100% | 100% | 45% |
| **COVERAGE: Every Newborn** | Early initiation Breastfeeding | Numerator | 88% | 88% | -192% | 100% | 100% | 10% |
| **COVERAGE: Small or sick newborns** | Bag-mask-ventilation | Numerator | 74% | 74% | 78% | 100% | 100% | 57% |
| | KMC | Numerator | 100% | 100% | 98% | 89% | 89% | 97% |
| | Neonatal sepsis | Numerator | 55% | 55% | 100% | 74% | 74% | 94% |
| **Maternal Tracer** | Uterotonics prevent PPH | Numerator | 74% | 74% | 94% | 100% | 100% | -482% |
| **Indicator denominators** | Total Births | Denominator | 91% | 89% | -193% | 99% | 99% | 96% |
| | Live births | Denominator | 89% | 89% | -227% | 100% | 100% | 94% |

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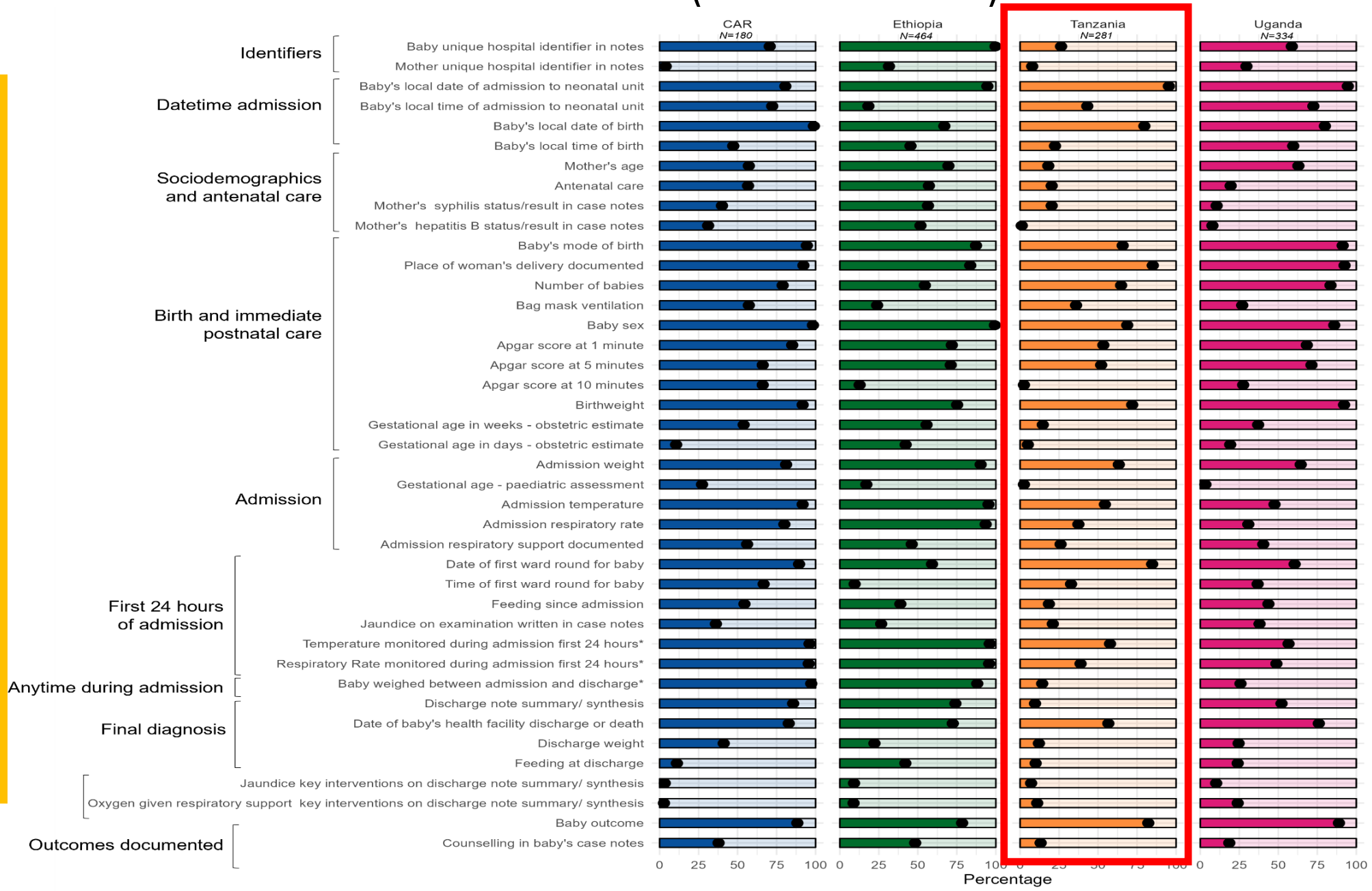
Novel data collection and analysis

# Data quality – Neonatal Clinical Case notes (without Dar)

IMPROVE
IMProving qUaLity and uSE of newborn indicators

## Key findings – all countries:

- ❑ Key newborn data is available in clinical case notes but completeness varies 8%-100%
- ❑ Mode of birth, weight, temperature and respiratory rate more complete
- ❑ Missing at a high frequency: socio-dem & discharge information



# Factors to improve data quality

Tanzania

IMPULSE
IMProving qUaLity and uSE of newborn indicators

| | | National | Regional | District | Facility |
|---|---|---|---|---|---|
| Organizational factors | Good governance structures | 83% | 72% | 56% | not assess |
| | Planning for RHIS | 100% | 83% | 31% | not assess |
| | Use of quality improvement standards | 100% | 89% | 69% | not assess |
| | Supervision quality | 100% | 58% | 81% | 76% |
| | Financial resources allocated | 100% | 33% | 23% | not assess |
| | Training plan costed | 100% | 67% | 38% | not assess |
| | Data quality assurance score | not assess | not assess | 80% | 57% |
| | Designated staff check report data quality | not assess | not assess | 100% | 76% |
| Behavioral Factors | Knowledge HIS | 89% | 60% | 60% | 44% |
| | Knowledge data quality checking methods | 83% | 70% | 69% | 46% |
| | Motivation among staff | 74% | 59% | 57% | 46% |
| Improve Newborn Data Quality | Use of routine data for RHIS quality improvement | not assess | not assess | 47% | 28% |

**Strengths:**

- ❑ National scores highly

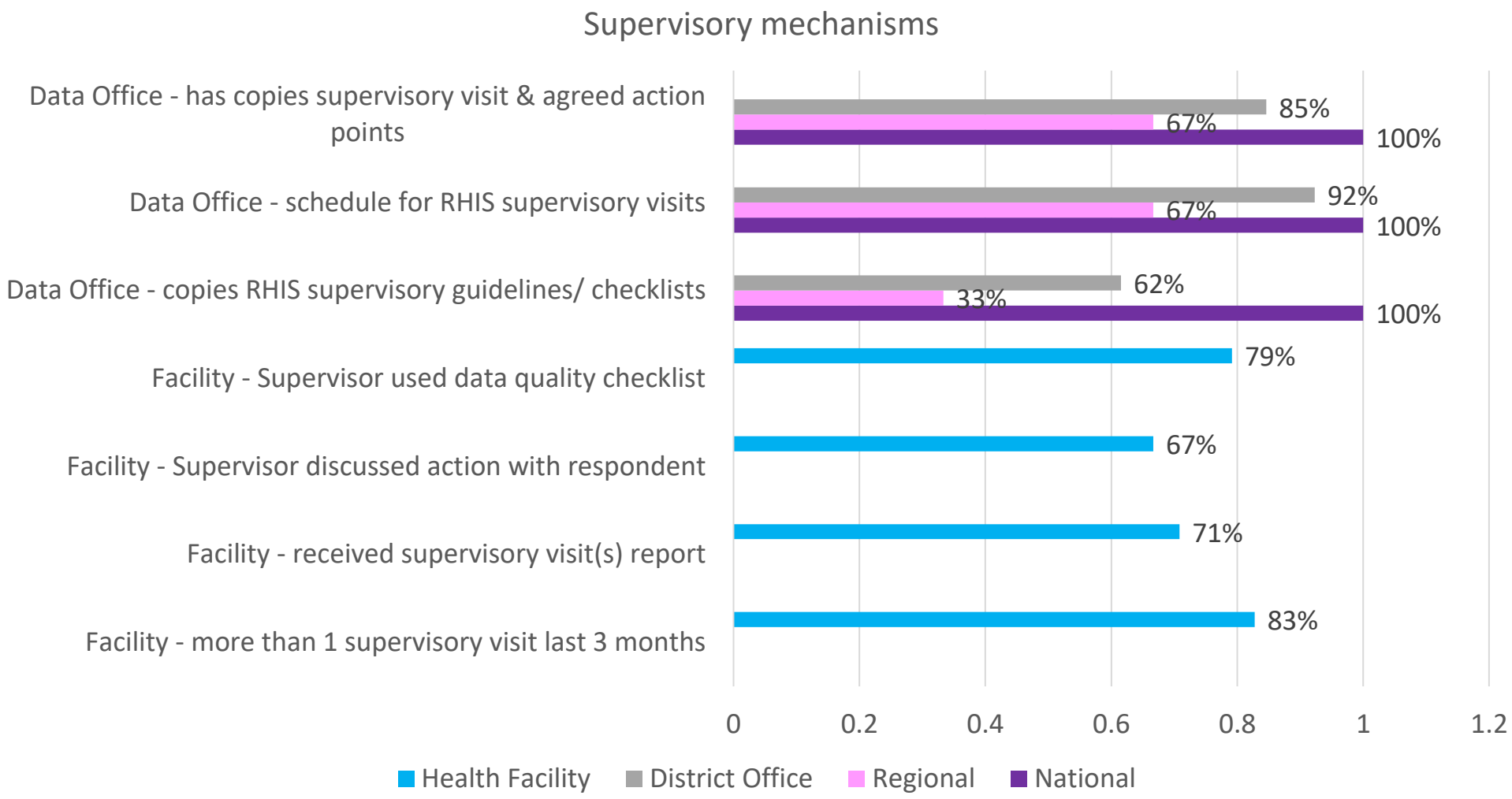
**Key gaps:**

- ❑ Regional outperforms district
- ❑ Health facility lowest
- ❑ Behavioral factors lower across all levels
- ❑ Use of data for quality improvement 47% district and 28% facility

# Supervisory mechanisms for newborn and stillbirth data

Tanzania

IMPULSE
IMProving qUaLity and uSE of newborn indicators




**Strengths:**

- ❑ Supervision happening >60%

**Key gaps:**

- ❑ Checklists, action points

# IMPULSE objective 3

IMPULSE
IMProving qUaLity and uSE of newborn indicators

3. Understand newborn indicator data use by different stakeholders in existing RHIS.

Tanzania

IMPULSE
IMProving qUaLity and uSE of newborn indicators

# Use Newborn and stillbirth data

| | | District | Facility |
|---|---|---|---|
| Organizational factors | Evidence data analysis taking place | 61% | 34% |
| RHIS processes | Data Visualization | 59% | 55% |
| | Use of data to produce narrative analytical reports | 82% | 66% |
| Use Newborn data for decisions | Use information for discussion on key performance targets | 47% | 34% |
| | Use information for coverage of services | 18% | 14% |
| | Use sex-disaggregated data | 6% | 7% |
| | Use information for human resources decisions | 41% | 24% |
| | Use information for quality improvement | 47% | 0% |

**Strengths:**

- ❑ 82% data offices using for narrative results

**Key gaps:**

- ❑ Use of data assessed to be low

# IMPULSE objective 4

IMPULSE
IMProving qUaLity and uSE of newborn indicators

4. Analyze technical, organizational and behavioural enabling factors in RHIS to improve newborn indicator data quality and use

# The Performance of Routine Information System Management (PRISM) - Conceptual Model

INPUTS | PROCESSES | OUTPUTS | OUTCOMES | IMPACT

## RHIS determinants

**Technical factors:**
- Complexity of reporting forms and procedures
- HIS design
- Computer software
- Information technology complexity

**Organizational factors:** Critical management functions & information needs
- Governance
- Planning
- Training
- Supervision
- Quality
- Finance

- Promotion of a culture of information

- Resource availability

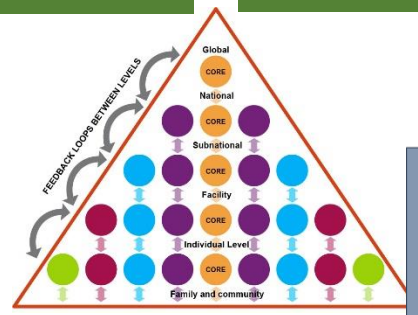
**Behavioral factors:**
- Level of knowledge of content of HIS forms
- Data-quality checking skills
- Problem-solving for HIS tasks
- Competence in HIS tasks
- Confidence levels for HIS tasks
- Motivation

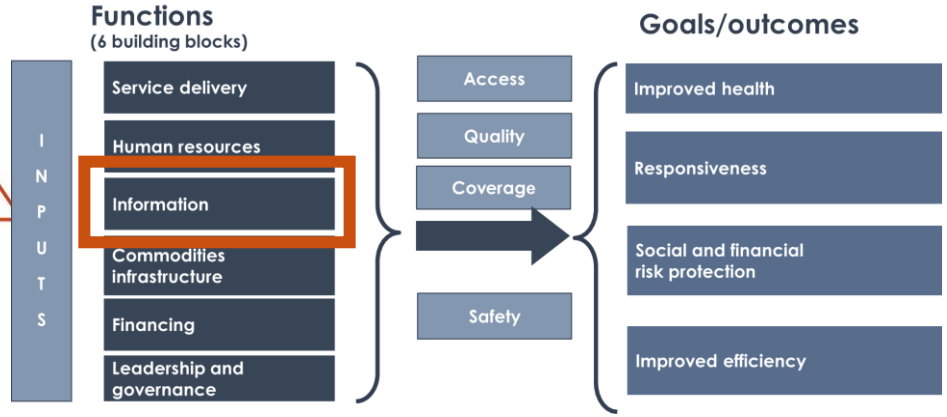
**RHIS processes:**
- Data collection
- Data transmission
- Data processing
- Data analysis
- Data quality check
- Feedback

**Improved RHIS performance**
- Data quality
- Information use

**Improved health system performance**

**Improved health status**



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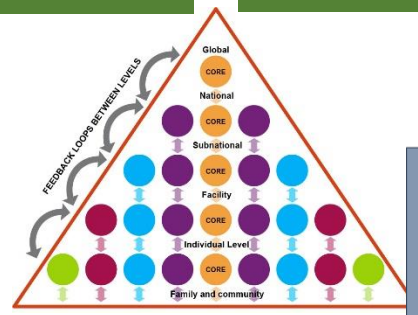
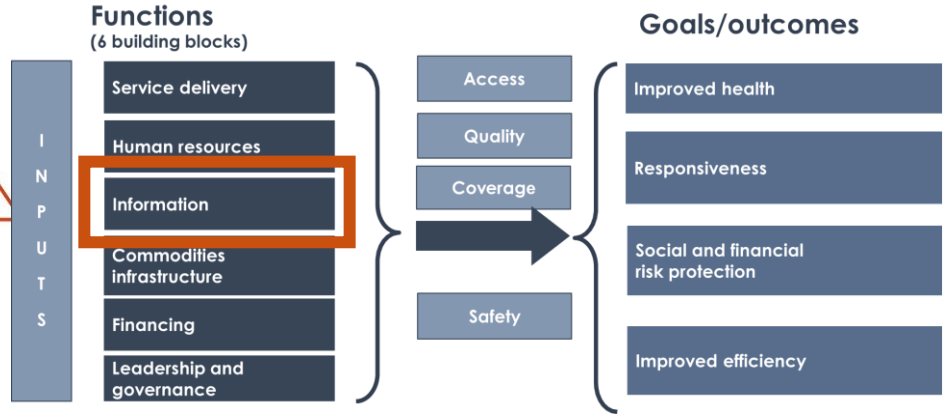


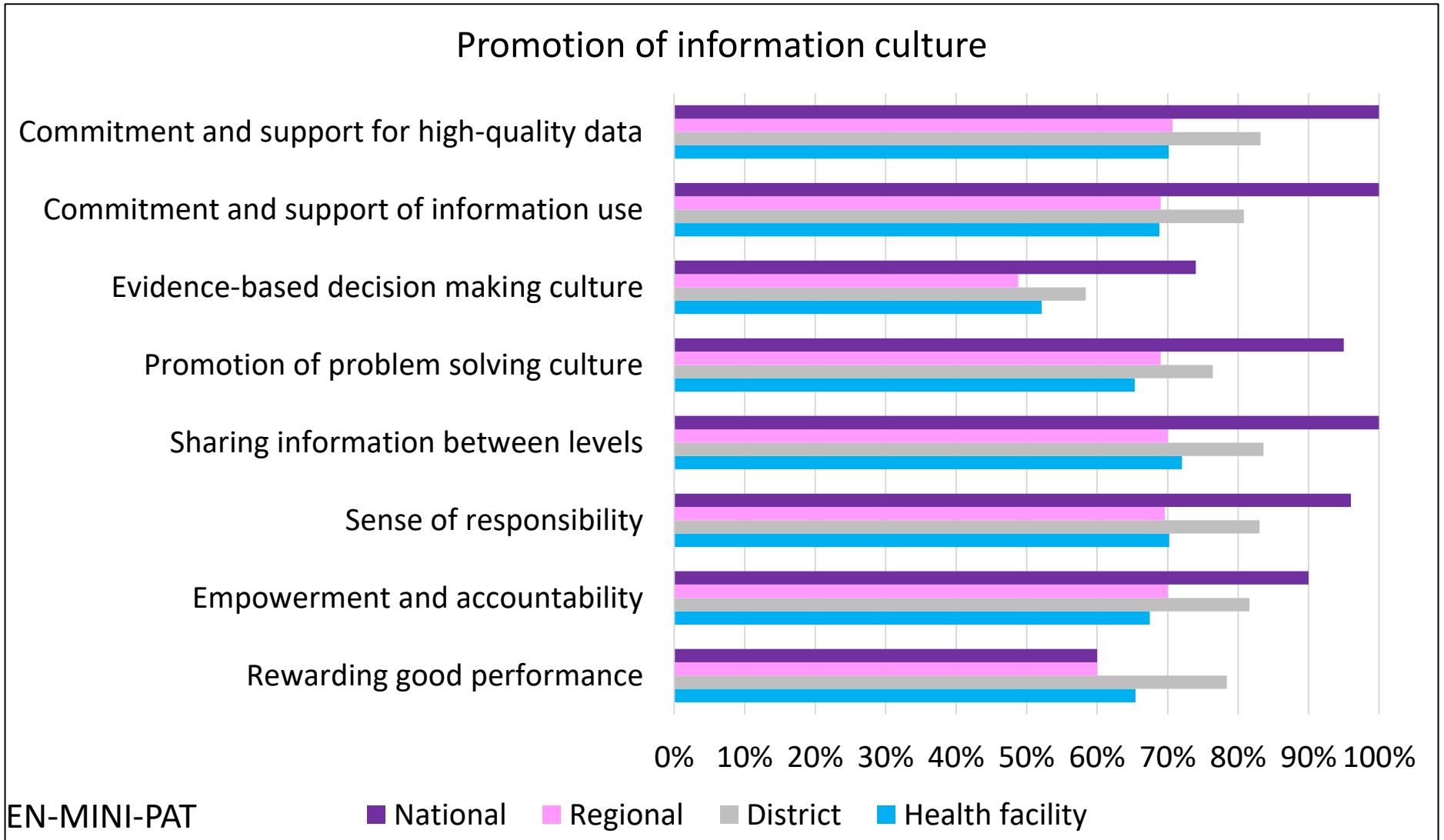
# Promotion of culture of information

Tanzania

IMPULSE
IMProving qUaLity and uSE of newborn indicators

An organization having the capacity and control to promote values and beliefs among its members to promote collection, analysis and use of information to accomplish its goals and mission.

N=90 respondents, 47 sites




**Strengths:**

- ❑ National higher – other levels ~50-80%

**Gaps**

- ❑ Across all domains – especially evidence-based decision making

# The Performance of Routine Information System Management (PRISM) - Conceptual Model

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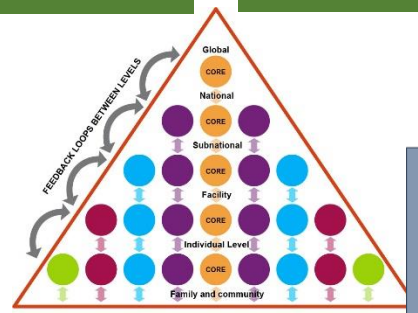
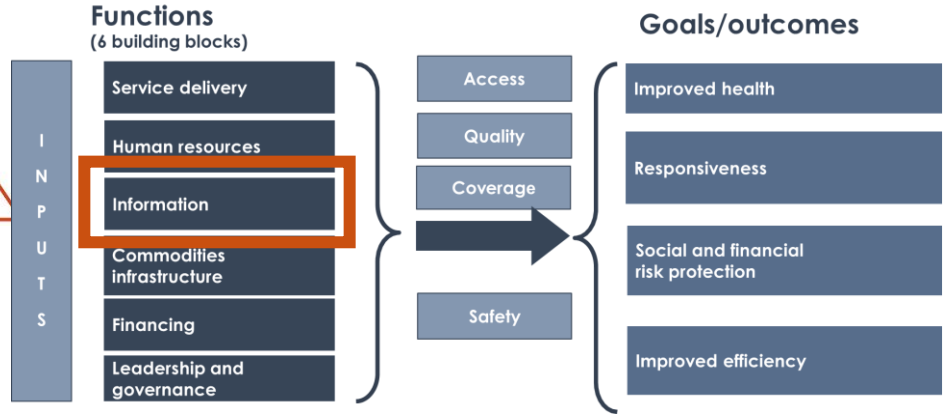


# Physical Resources for newborn/stillbirth RHIS

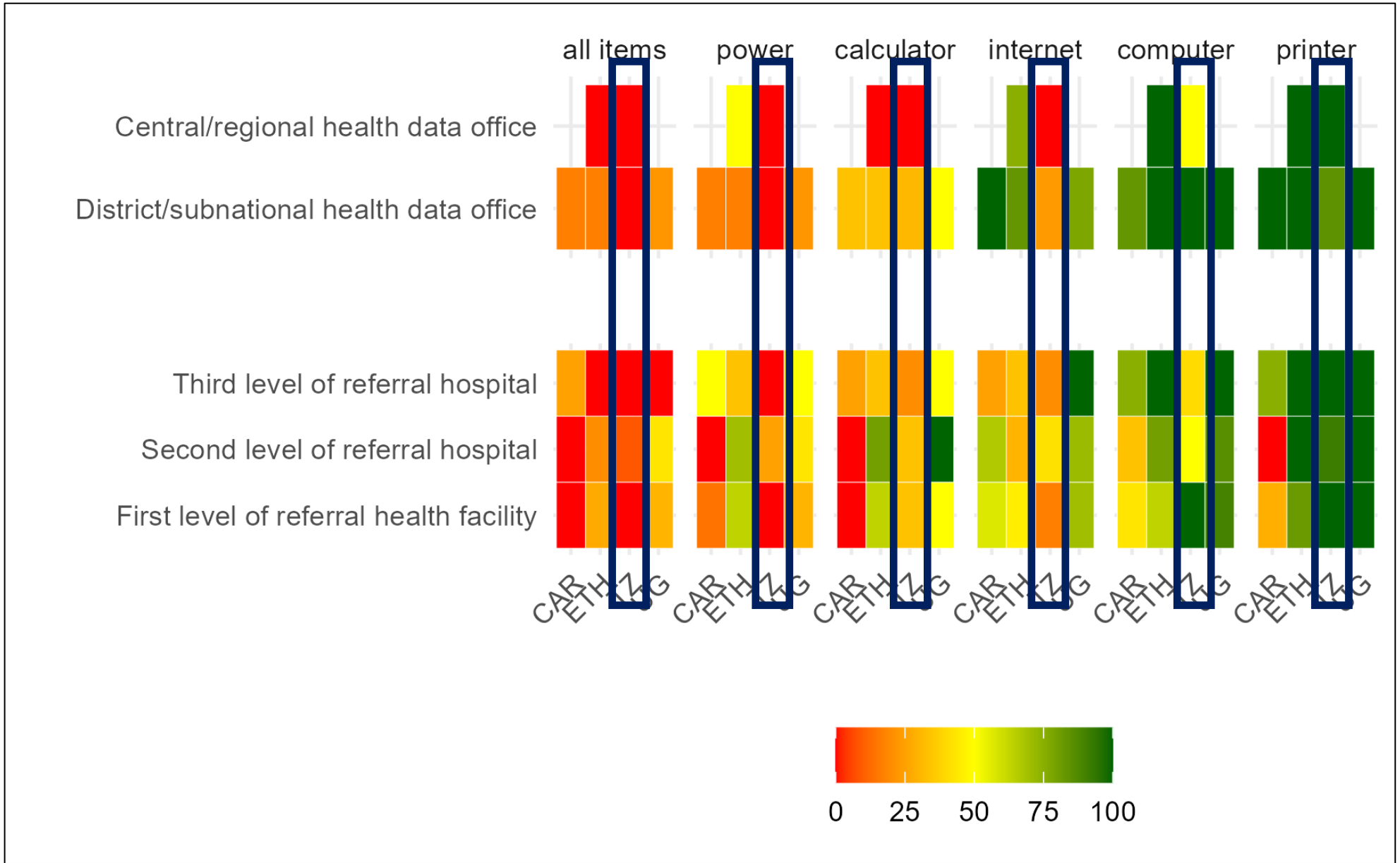
IMPULSE
IMProving qUaLity and uSE of newborn indicators

**Strengths:**

- ❑ Good availability:
  Printer >75%
  Computer >50%

**Key gaps:**

- ❑ Low availability:
  internet <25%
  calculator <25%
  power <20%
- ❑ Bundle of items for RHIS <10% of sites

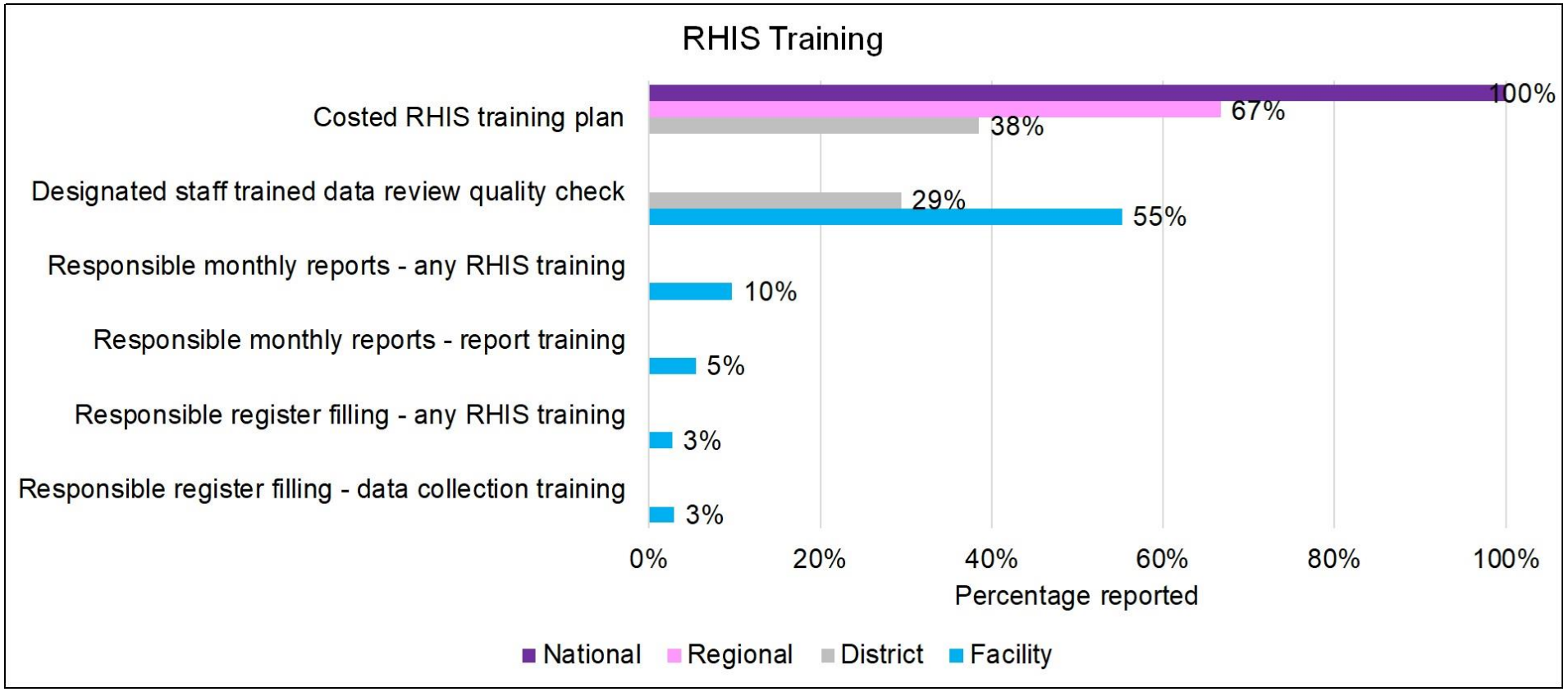



Novel analyses

# RHIS Training for newborn and stillbirth indicators

Tanzania

IMPULSE
IMProving qUaLity and uSE of newborn indicators




**Strength:**

- ❑ Costed plan nationally

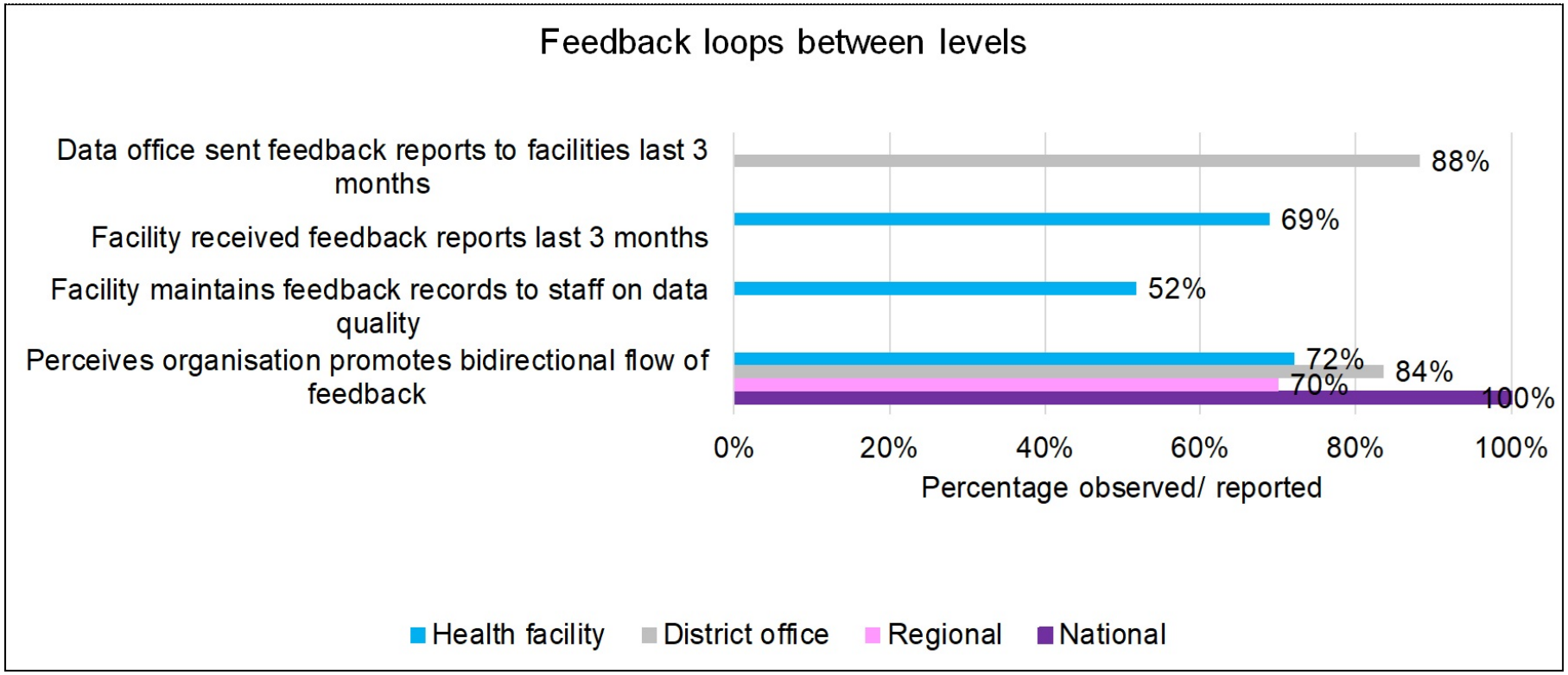
**Gaps:**

- ❑ Large RHIS training gap – especially for data collection and report training at facility level (3% and 5%)

# Feedback loops for newborn and stillbirth data

Tanzania

IMPULSE
IMProving qUaLity and uSE of newborn indicators




**Strengths:**

- ❑ **88%** feedback report sent by district offices to facilities
- ❑ Perceived flow mixed

**Key gaps:**

- ❑ Not receiving reports at health facility
- ❑ Use of feedback data

# The Performance of Routine Information System Management (PRISM) - Conceptual Model

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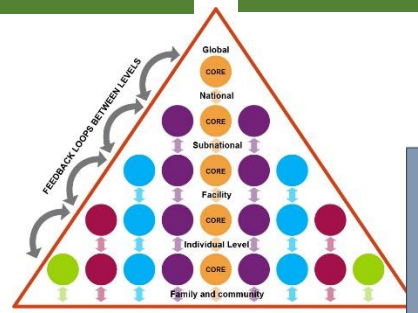
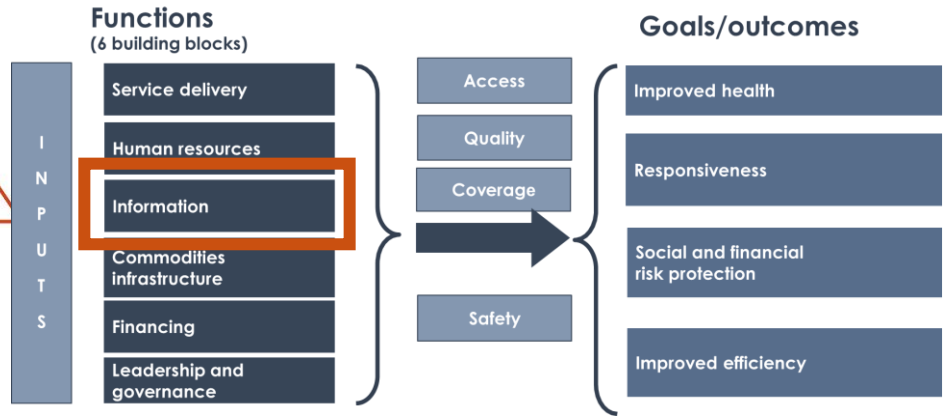


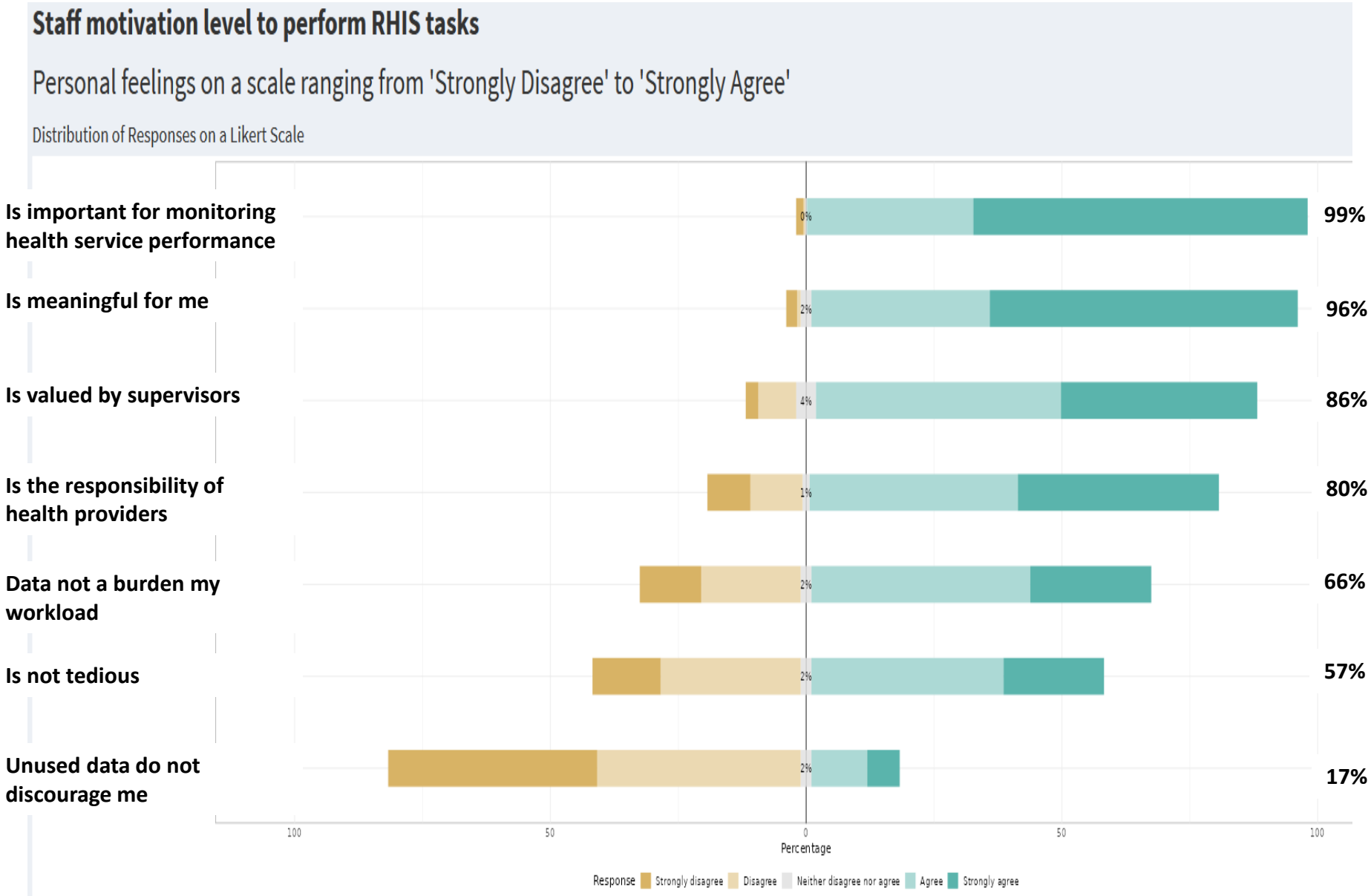



# Motivation for RHIS tasks

IMPULSE
IMProving qUaLity and uSE of newborn indicators

Self-reported score 7 components:

- ❑ 80% agree RHIS tasks are the responsibility of healthcare providers
- ❑ 66% consider RHIS tasks burden their workload
- ❑ 87% agree unused data is discouraging




Novel visualization

# RHIS Task confidence-competence gaps Health facilities n = 29

Tanzania

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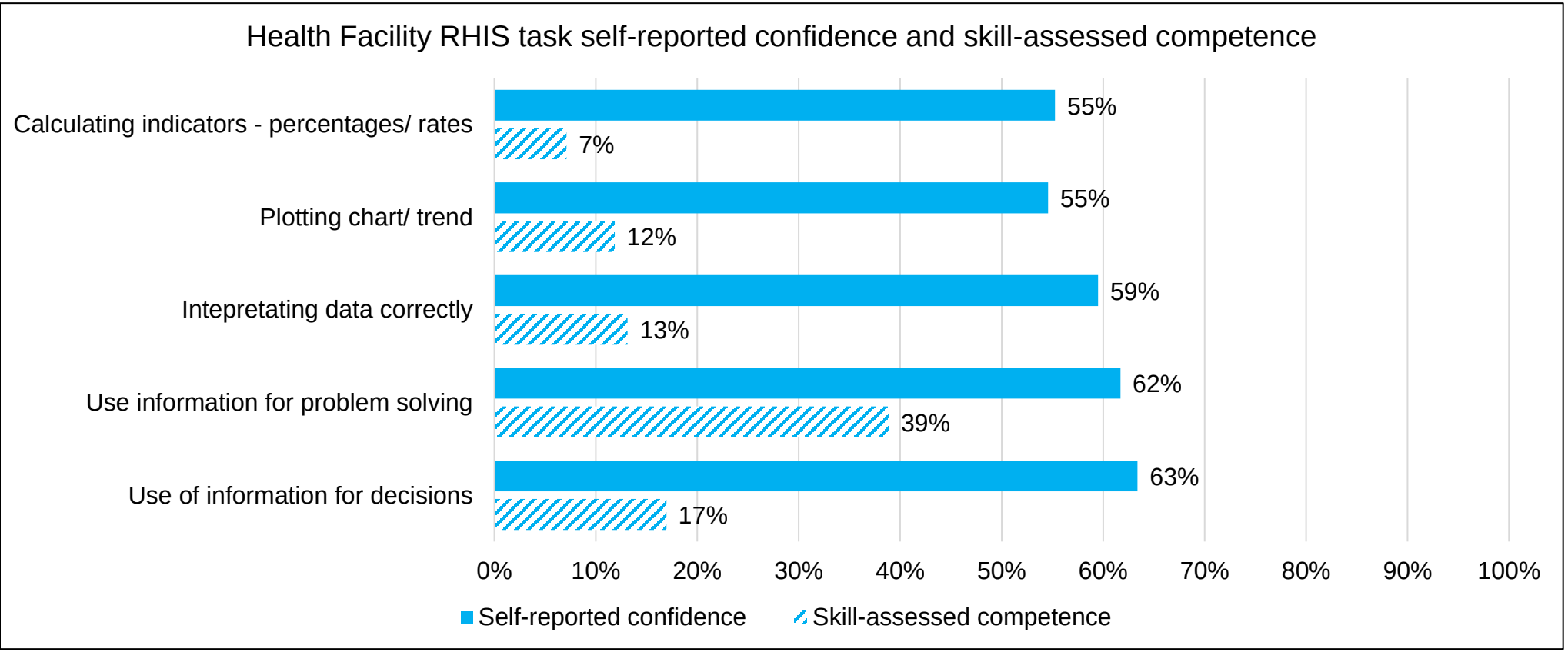
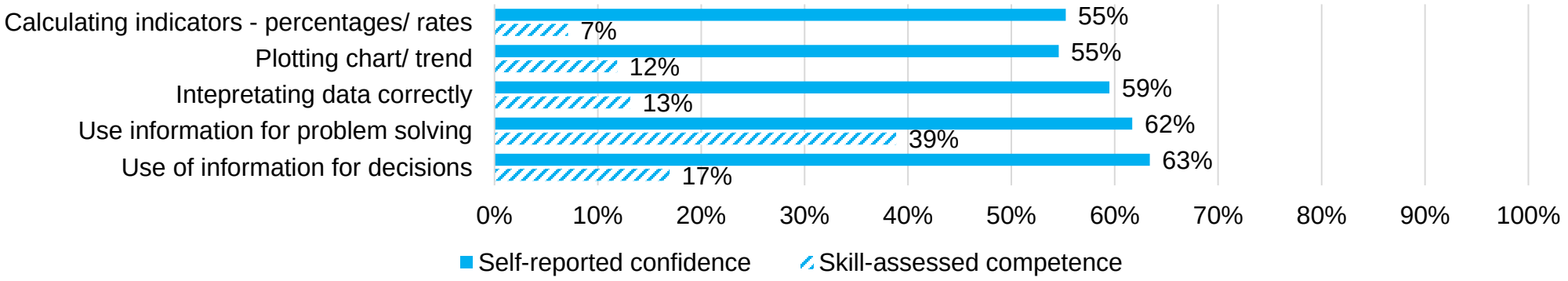
IMProving qUaLity and uSE of newborn indicators




**Gaps**

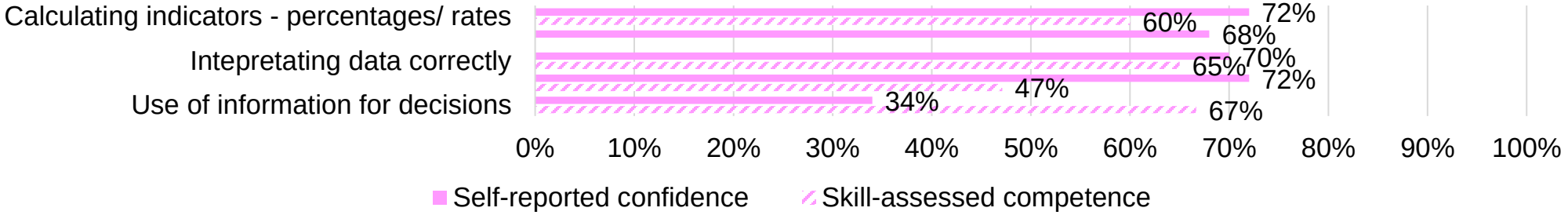
- ❑ Limited confidence and large gap between confidence and competence

## Health Facility RHIS task self-reported confidence and skill-assessed competence




## District Data Office RHIS task self-reported confidence and skill-assessed competence


## Regional Data Office RHIS task self-reported confidence and skill-assessed competence

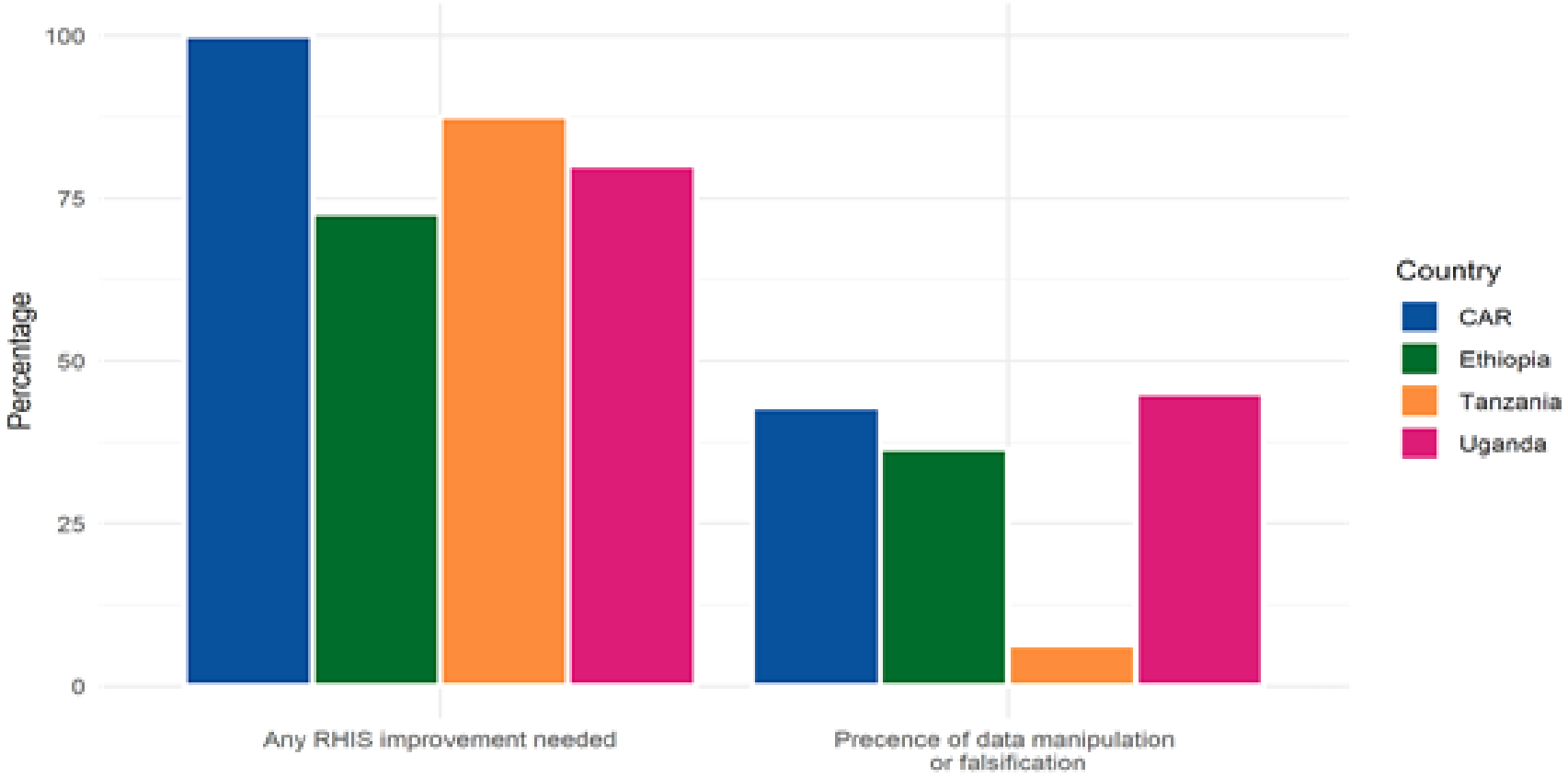



### Gaps

- ❑ Higher confidence and smaller gaps at higher levels, but still there…

# Respondent's perspectives on RHIS for newborn and stillbirth indicators

IMPULSE
IMProving qUaLity and uSE of newborn indicators

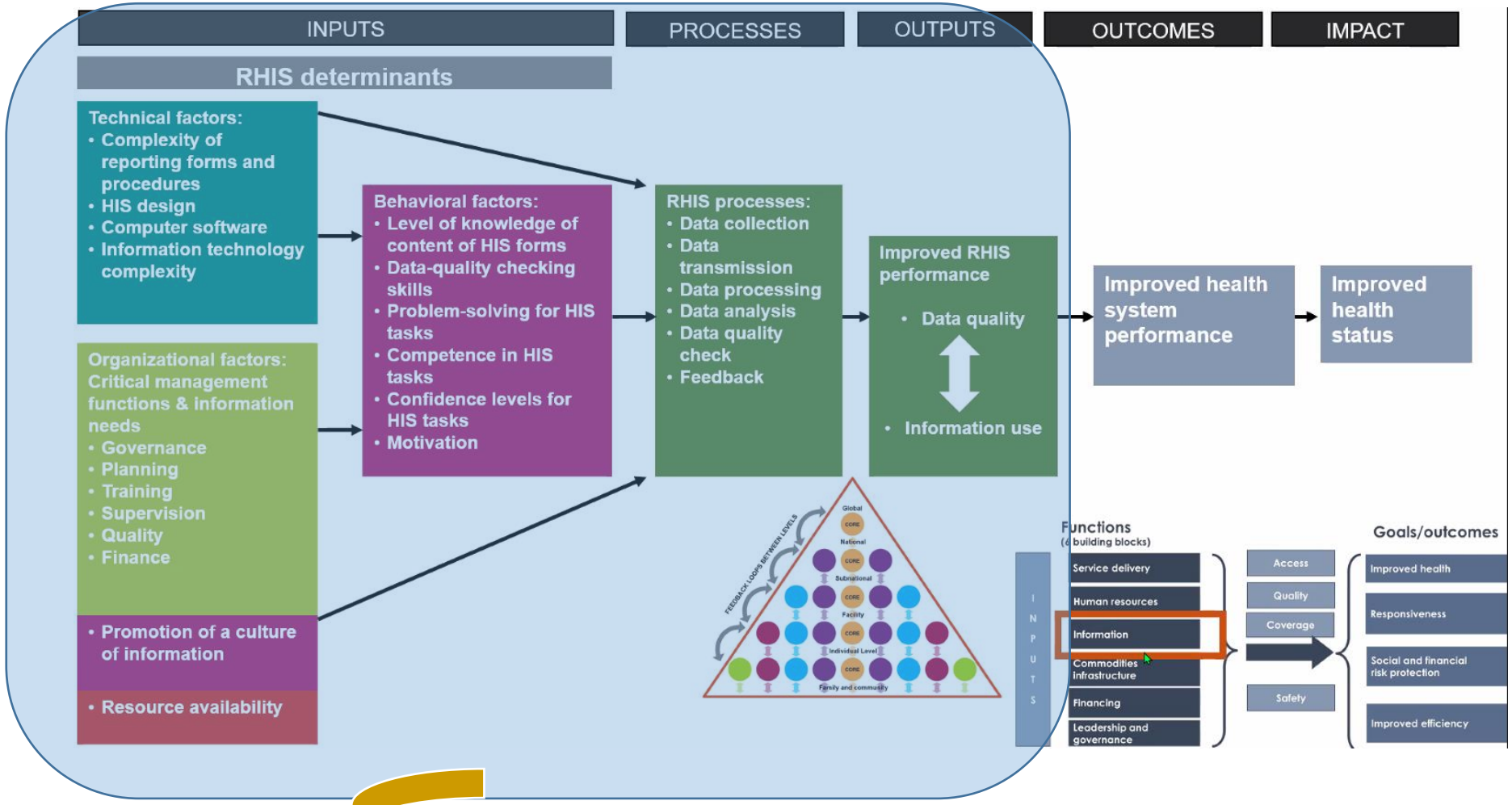



**Key message:**

- ❑ 88% of respondents expressed the need for improvement in RHIS
- ❑ 46% of respondents reported **data falsification or manipulation.**

Qualitative dataset analysis in process

# IMPULSE phase 1 - what lessons are we learning?




Many strengths, but also gaps across technical, organizational and behavioral determinants contributing to newborn and stillbirth data quality and use

PRISM framework

Tanzania

IMPULSE
IMProving qUaLity and uSE of newborn indicators

# EN-MINI Tools overview assessment shown on the PRISM Conceptual Model

## INPUTS

### RHIS Deteminants

#### Technical Factors

| | Regional | District | Facility |
|---|---|---|---|
| Electronic HIS tracks completeness | 100% | 93% | 86% |
| Internet connection | 67% | 57% | 76% |

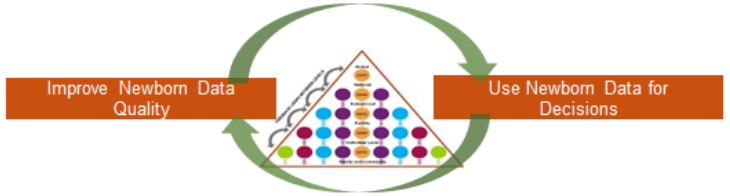
#### Organizational factors

| | Regional | District | Facility |
|---|---|---|---|
| Good Governance structures | 72% | 56% | |
| RHIS Planning | 83% | 31% | |
| Training plan | 67% | 38% | |
| Supervision quality | 58% | 81% | 76% |
| Quality assurance | | 80% | 57% |
| Finance allocated | 33% | 23% | |
| **Culture of information promotion** | | | |
| Quality/ use/ responsibility/ empowerment | 66% | 78% | 66% |
| **Availability resources** | | | |
| Staff designated for reports | | 100% | 86% |
| No stockouts registers/ reports | n/a | n/a | 34% |

#### Behavioral Factors

| | Regional | District | Facility |
|---|---|---|---|
| Knowledge HIS rationale | 60% | 60% | 44% |
| Knowledge Data quality checking | 70% | 69% | 46% |
| Confidence levels for HIS tasks | 64% | 72% | 59% |
| Competence HIS Problem-solving | 47% | 48% | 39% |
| Competence in HIS tasks | 48% | 47% | 18% |
| Motivation | 59% | 57% | 46% |

## PROCESSES




#### RHIS processes

| | District | Facility |
|---|---|---|
| Data transmission - availability | 80% | 95% |
| Data completeness | 79% | 95% |
| Data entry accuracy | 0% | 19% |
| Data processing | 82% | 66% |
| Data analysis | 61% | 34% |
| Data visualization | 59% | 55% |
| Feedback sent/received | 88% | 69% |

## OUTPUTS

#### RHIS Performance

| | |
|---|---|
| **Data quality** - Completeness | 77% |
| - Timeliness | |
| **Data use** | 19% |

EN-MINI-PAT

# STRONG Performance and GAPS for action

IMPULSE
IMProving qUaLity and uSE of newborn indicators

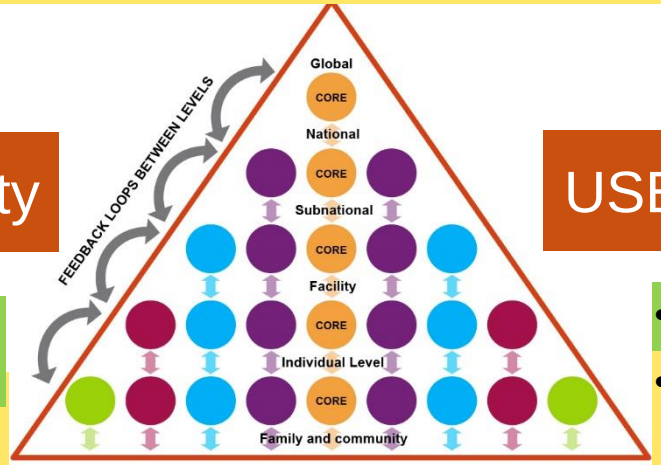
**Tanzania**

## MAP Newborn Data

- Most newborn/stillbirth data elements/ indicators in DHIS2
- Streamline RHIS processes to reduce data burden

## IMPROVE Newborn Data Quality

- Organizational factors for RHIS at national/ regional data office
- Train health facility staff in RHIS competencies
- Value frontline health facility staff data to overcome low motivation
- Explore case notes as alternative data source to reduce duplication in registers




## USE Newborn Data for Decisions

- Analysis, reports, visualizations data at district office
- Improve the “Data/Information Culture” especially in health facilities
- Use data at all levels

# IMPULSE Phase 1
# Strengths and limitations

IMPULSE
IMProving qUaLity and uSE of newborn indicators

Strengths:

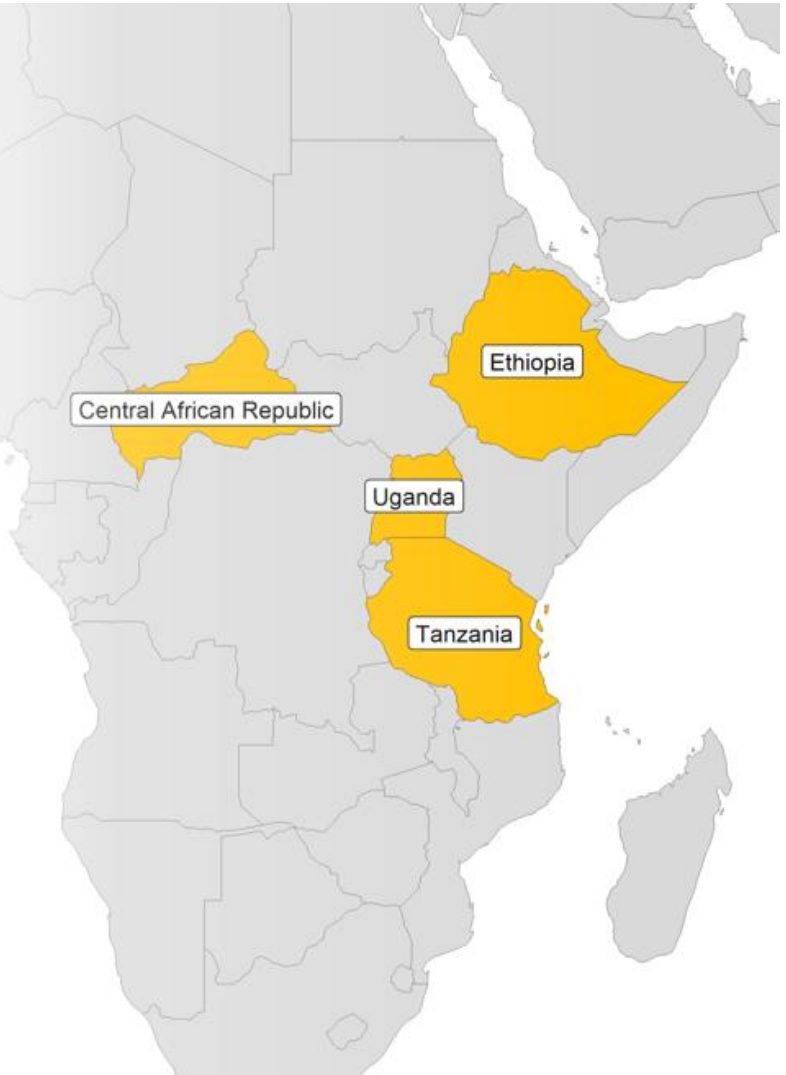
1) Comprehensive analysis of newborn and stillbirth data
2) Used standardized methodology – regional comparison and multi-country
3) Most data were directly observed (use more difficult….)

Limitations of this assessment include:

1) Sample of regions/ health facilities – beware generalizability
2) Shown aggregate analyses mainly today

# IMPULSE Phase 1 so far….

IMPROVING qUaLity and uSE of newborn indicators




1) **Evidence generation for advocacy**

✓ Baseline assessment multi-region, multi-country Quality & Use Newborn data

✓ Used existing global routine data tools, developed research modules and additional tools and French/ Amharic translations

EN-MINI tools

2) **Tangible products**

✓ Country Reports, Papers: 10 in progress - welcome to co-author

✓ Dissemination: AlignMNH 2023, DHIS2 annual conference.

✓ Website: Would like to name NAG members?

3) **Partnerships**

✓ Collaboration with NAG

✓ Implementation/ Academic – global north and south

✓ Mutual exchange and learning

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE | MARCH MATERNAL ADOLESCENT REPRODUCTIVE & CHILD HEALTH | DOCTORS WITH AFRICA CUAMM | IFAKARA HEALTH INSTITUTE | WHO Collaborating Center for Maternal and Child Health Trieste Italy | Makerere University | School of Public Health College of Health Sciences, Makerere University | ISO 9001:2015 certified IFAKARA HEALTH INSTITUTE research | training | services | Chiesi FOUNDATION

IMPULSE

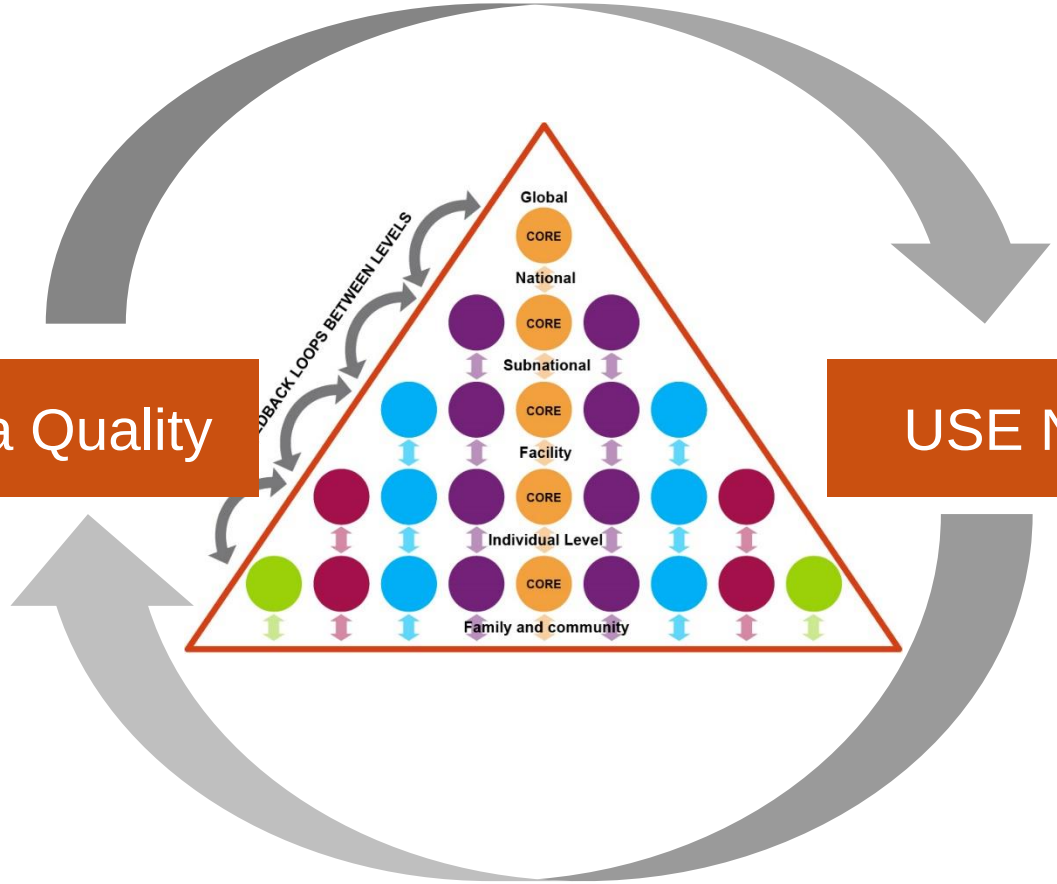
IMProving qUaLity and uSE of newborn indicators

- Why the focus on newborn and stillbirth data?
- What is the IMPULSE Study?
- IMPULSE Phase 1: methods, findings, validation discussion
- IMPULSE Phase 2:How can we work together for phase 2?

# Advancing data needs dual focus

Tanzania IMPULSE IMProving qUaLity and uSE of newborn indicators

IMPROVE Newborn Data Quality




USE Newborn Data for Decisions

# IMPULSE PHASE 2 Theory of Change

**What?**
(PRISM Domain)

**Who? (where)**

**How?**

**Why?**

WP - Community of Practice

- WP 1
- WP 2
- WP 3
- WP 4

Uganda and Ethiopia

CAR and Tanzania

- Organizational
- Behavioral
- Performance
- Technical

- National Advisory Groups & other stakeholders (MoH and other health authorities)
- Data professionals (all data offices)
- Data professionals (facilities)
- Health professionals (facilities)

**Co-creation Focus on three interconnected key aspects:**

**Data Quality**
**Data use**
**Quality of care**

Subnational/national for programme improvement and accountability

Health facilities for clinical decisions

**Strengthening data quality & use for action for newborns**

**2030**
End Preventable Maternal and Newborn Deaths including Stillbirths

**2025**
Effective use of data in national health information systems

Strong implementation research linkages

## Research to support Every Newborn Milestones regarding measurement

Every Newborn Measurement Improvement Roadmap

IMPULSE

IMProving qUaLity and uSE of newborn indicators

# Asante

# Thank you!