

# IMPULSE

IMProving qUaLity and uSE of newborn indicators

Project funded by Chiesi Foundation

## IMNHC 2023 - THEMATIC SESSION

Transforming Maternal and Newborn Data to End Preventable Deaths: Successes, Constraints, and New Ideas

May 11<sup>th</sup> - 10:45 - 11:30  
Room: Freesia

The IMPULSE study focuses on **improving quality and use of newborn and stillbirth indicators**. The project is currently ongoing in four African countries: **Central African Republic, Ethiopia, United Republic of Tanzania** and **Uganda**.

The project is coordinated by The London School of Hygiene & Tropical Medicine (LSHTM), in collaboration with Doctors with Africa CUAMM, the WHO Collaborating Center (WHO CC) in Maternal and Child Health IRCCS Burlo Garofolo Trieste Italy (WHO CC Trieste), Makerere University School of Public Health, Uganda (MAKSPH), Ifakara Health Institute, Tanzania (IHI), in collaboration with WHO and UNICEF, and is kindly funded by Chiesi Foundation.

## RESEARCH OBJECTIVES

The IMPULSE study aims at improving newborn routine data quality and use in low- and middle-income countries for Every Newborn to survive and thrive. Specific aims are as follow:

- To analyse the current data systems to generate evidence on effective, sustainable tools and methods to assess and improve the availability, quality, and use of newborn data in four countries in sub-Saharan Africa, with an emphasis on small and sick newborns (SSN) care.
- To promote data use in national and international policies to contribute in improving the health and wellbeing of newborns including SSN in neonatal intensive care.

Our partnership will **generate evidence which can be used by national governments by international agencies and development partners**, to develop strategies to improve use of high quality newborn data, and by that, contribute in reducing newborn mortality as for the Sustainable Development Goal 3.2 so *Every Newborn survives and thrives*.

## A STUDY IN TWO PHASES

### IMPULSE Phase 1 (2021-2024)

Using mixed methods, we are assessing, at different levels of the health system:

- the **availability, quality and use** of key newborn and stillbirth indicators, with an emphasis on data for SSN;
- existing data quality improvement mechanisms;**
- barriers or facilitators to improving data quality;**
- recommendations by health and data professionals.**

Data will be collected at over **145 sites**, including health facilities at different level (national, district hospital, health centers) and type (government, private), and the related sub-national and national health data offices in the four countries by July 2023.

Our data is being collected using the recently launched Every Newborn-Measurement Improvement for Newborn & Stillbirth Indicators (EN-MINI) Tools<sup>1</sup> for Routine Health Information Systems. The IMPULSE team have updated the EN-MINI Tools to:

- assess the quality of the individual newborn case note data;
- explore the impact of COVID 19 pandemic on newborn and stillbirth data quality and use;
- capture views and suggestions from health and data professionals to improve data for use.

### IMPULSE Phase 2 (2024-2026)

The design of phase 2 will be informed by Phase 1 findings. We will test the new approaches/tools aiming at improving newborn data **availability, quality and use** of newborn and stillbirth data in high mortality/morbidity settings focused on SNN care in health facilities in Africa.

<sup>1</sup> <https://www.data4impactproject.org/resources/en-mini-tools/>

## IMPULSE STUDY PLATFORM

**4**

countries  
(CAR, Uganda,  
Tanzania, Ethiopia)

**15**

regions (including  
humanitarian,  
difficult to reach)

More than

**145**

study sites  
(facilities and  
related health  
offices)



National stakeholders +  
parents + academia +  
**National Advisory Board**

International stakeholders  
**Advisory Board**

# OPPORTUNITIES AND SYNERGIES WITH OTHER PROJECTS AT LSHTM

Use of high quality data in countries for programme improvement and accountability

**IMPULSE**

## Improving Quality and Use of Newborn Indicators (IMPULSE)

Facility-level newborn indicators – focus on small or sick newborns (Central Africa Republic, Ethiopia, Tanzania, Uganda)

**EN-BIRTH STUDY 2**

## Indicator uptake feasibility in routine health information systems

Every Newborn – Measurement Improvement for Newborn and stillbirth Indicators (EN-MINI) Tools for mapping, quality and data use (Bangladesh, Tanzania)

**EN-BIRTH STUDY 1**

## Every Newborn - Birth Indicators Research Tracking in Hospitals

Facility births/ newborn care to assess validity of newborn indicator measurement (Bangladesh, Nepal, Tanzania)

## Research to support Every Newborn Milestones regarding measurement

Every Newborn core indicators data quality strengthened and used

**2030**

End Preventable Maternal and Newborn Deaths including Stillbirths

**2025**

Effective use of data in national health information systems

## TRANSLATIONAL RELEVANCE AND IMPACT

### 1. Expected impact on global policies:

This study will fill critical gaps in knowledge regarding data for use to improve SNN care. We also expect that the collaboration with WHO and UNICEF will maximize policy uptake of study findings to the widest audience at international level, including other countries in Africa and potentially in other regions worldwide.

### 2. Expected impact on newborn health and global initiatives including SDGs and Every Woman Every Child:

The ultimate aim of this 5-year project is to contribute to the health and wellbeing of newborns, especially SNN, and thus contribute to reducing newborn mortality. Considering estimated births in these four IMPULSE study countries in Africa, an expected 8-10 million newborns will directly benefit from the evidence produced. Additionally, findings of this study will help interpret existing estimates of neonatal care practices and health outcomes.

### 3. Expected impact at country level:

Results will be made widely available in each country, by:

- a report with the findings of IMPULSE findings;
- recommendations for improvements in data and SSN care;
- effective interventions to improve newborn indicator availability quality and use at the facility level;
- an estimation of costs for the health system of implementing these interventions. This will foster translation of evidence and of lesson learned at the national, sub-national, and local levels.

### 4. Relevance to the COVID-19 pandemic:

IMPULSE will contribute in providing critical information on data quality issues pertinent to the health systems challenges faced during the COVID-19 pandemic.

### 5. Learning community:

Our project will also strengthen research networks of partners committed to improving newborn measurement, including national institutions in Africa, Ministries of Health, Academia, and LSHTM, WHO CC Trieste, WHO, UNICEF and the Chiesi Foundation.



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### Key contacts

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