# What is ALERT?

Insufficient reductions in maternal and neonatal deaths and stillbirths in the past decade are a threat to achieving *Sustainable Development Goal* 3. Overcoming the knowledge-do gap to ensure implementation of established evidence-based interventions will be key.

**Our ALERT** project targets the intrapartum care period and aims to develop and evaluate a multifaceted health system intervention to strengthen the implementation of evidence-based practices and responsive care in sub-Saharan African hospitals. The project will take place in in 16 hospitals in Benin, Malawi, Tanzania and Uganda.

The intervention will include four main components: (see also figure 1):

i) end-user participation through narratives of women, families and providers of midwifery care to ensure a co-design of the intervention

i) competency-based midwifery training as part of capacity building

iii) quality improvement, supported by data from a clinical perinatal e-registry and

iv) empowerment and leadership mentoring of maternity unit leaders

We will evaluate the intervention through a *stepped-wedge design* complemented by a *realist process evaluation* and *economic evaluation* to estimate scalability and costs. The perinatal e-registry will provide data for i) the quality improvement and ii) the impact evaluation.

## ALERT Consortium Partners

Karolinska Institutet

KAMUZU UNIVERSITY OF HEALTH SCIENCES

THE AGA KHAN UNIVERSITY

INSTITUTE OF TROPICAL MEDICINE ANTWERP

"The first 1,000 days of life - Survive, Thrive, Transform"

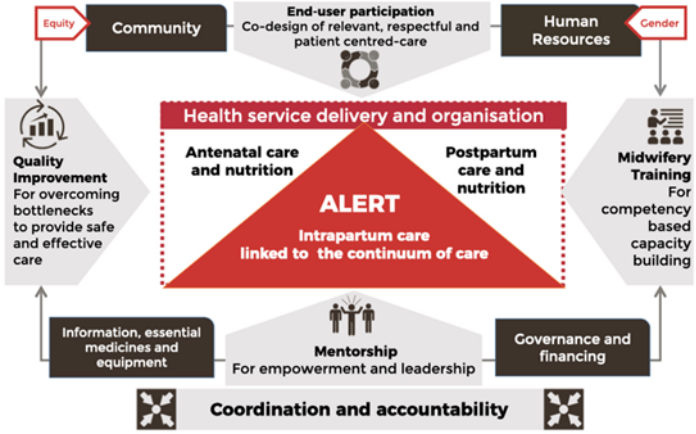


Fig. 1: Conceptual framework

## Project Funder

The ALERT project is funded by the European Commission's Horizon 2020 (No 847824) under a call for Implementation research for maternal and child health.

## For more information:

**VISIT:** https://alert.ki.se/

@ALERTprojectKI

@ALERT project, coordinated by Karolinska Institute

ALERT

# ALERT

**Action Leveraging Evidence to Reduce perinatal morTality and mobidity in sub-Saharan Africa**

| Original Robson classification | | |
|---|---|---|
| 1 | | Nulliparous, singleton, cephalic, >37 weeks' gestational age, in spontaneous labour |
| 2 | | Nulliparous, singleton, cephalic, >37 weeks' gestational age, induced labour, or caesarean section (CS) before labour |
| 3 | | Multiparous, singleton, cephalic, >37 weeks' gestation, in spontaneous labour |
| 4 | | Multiparous, singleton, cephalic, > 37 weeks' gestation, without previous CS, induced or CS before labour |
| 5 | | Previous caesarean section, singleton, cephalic, > 37 weeks' gestation |
| 6 | | All nulliparous with a single breech |
| 7 | | All multiparous with a single breech (including previous CS) |
| 8 | | All multiple pregnancies (including previous CS) |
| 9 | | All women with a single pregnancy in transverse or oblique lie (including those with previous CS) |
| 10 | | All singleton, cephalic, <37 weeks' gestational age (including previous CS) |

The 10-group (Robson) classification )

**See the published paper here:**

Stillbirth mortality by Robson ten-group classification system: A cross-sectional registry of 80 663 births from 16 hospital in sub-Saharan Africa - PubMed (nih.gov)

# Assessment of stillbirth and neonatal mortality by the 10-group (Robson) classification groups in Benin, Malawi, Tanzania and Uganda

## Aim

The study aimed to assess antenatal, intrapartum stillbirth and early (24-hour) neonatal mortality rates by obstetric risk groups (using the 10-group (Robson) classificantion.

## Method

***Study design:*** Cross-sectional data collection through the hospital-based ALERT perinatal e-registry.

***Study setting:*** 16 public and faith-based high case-load hospitals in Benin, Malawi, Tanzania and Uganda.

***Participants:*** All hospital births of a foetus above 1000g to a women aged 13-49. We document antenatal and obstetric risk factors and foetal outcomes.

***Study tools and data collection:*** The ALERT perinatal e-registry with its rigerous data processing and assurance framework since July 2021 (Fig 1, overleaf).

***Analysis :***We analyse the proportion of antemetal, intrapartum stillbirths and early 24-h perinatal deaths using the 10-group classification.

## Results

We included 80663 births from 78125 women.

Intrapartum stillbirths were 13 per 1000 births across al countries, lowest in Tanzania (4 per 1000), highest in Benin (25 per 1000). Early neonatal deaths (≤24 hours) were 8 per 1000 births, lowest inTanzania (4), highest in Uganda (11 per 1000).

Hospital perinatal mortality was 21 per 1000 births across all countries. We observed the highest mortality in the groups 6 and 7 (breech). group 9 (transverse lie) and preterm birth (group 10)

## Conclusion

The 10-group classification can be used to analyse perinatal mortality and guide investments.