What is ALERT?

Insufficient reductions in maternal and neonatal deaths and stillbirths 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.

The 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 takes place in in 16 hospitals in Benin, Malawi, Tanzania and Uganda.

The intervention includes 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

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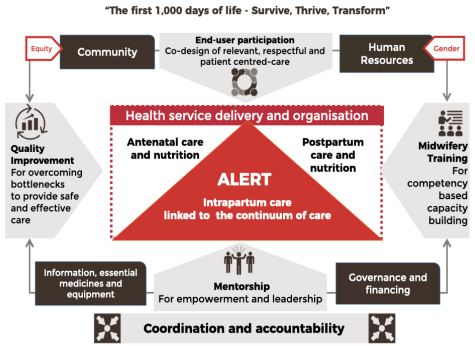

Fig. 1: Conceptual framework

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/

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ALERT

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

Midwives filling in the knowledge questionnaire.

Results from the assessment of ALERT midwifery care providers' childbirth and immediate newborn care competencies

For more information:

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

Published here:

https://journals.plos.org/globalpublichealth/article/comments?id=10.1371/journal.pgph.0001399

Assessment of ALERT midwifery care providers' childbirth and immediate newborn care

Aim

The study was conducted as part of the work stream "Positioning Midwifery" and designed to inform the content of the ALERT in-service training package. It sought to understand gaps in factors affecting the ability of midwifery care providers to provide quality maternal and newborn care. In particular, it assessed midwifery care providers' competency (knowledge, skills and behaviour) as well as aspects of the working environment.

Method

Study design: The study used a cross-sectional design employing a self-administered questionnaire for knowledge assessment and skills drills simulation observations to assess skills and behaviours.

Study setting: The study was conducted in the 16 ALERT hospital maternity units that are a mix of public and private-not-for-profit facilities.

Participants: All midwifery care providers including doctors providing midwifery care in the maternity units were invited to take part in the knowledge and working environment assessment, and of these approximately one third were invited to take part in the skills and behaviour simulation assessment.

Study tools: The study applied i) a self-administered questionnaire for the knowledge and working environment assessment ii) an observation skills drills checklist for the skills and behaviour simulation assessment. The tools were available in English, French and Swahili.

Ethics: All participants gave informed consent.

Data collection: The ALERT co-investigator with a midwifery background and data collection assistants with nurse-midwifery training in each country conducted the data collection.

Analysis: We calculated descriptive statistics, mean or proportion of all variables of interest.

Selected results

We included 302 out of 414 eligible midwifery care providers in the knowledge and working environment assessment and 113 in the skills drills simulations.

Participant characteristics

Two thirds (74%) of the midwifery care providers were female and 64% reported that they have completed tertiary education. About half (51%) were dual trained nurse-midwives,

Knowledge and working environment assessment

The assessment identified both strengths and areas of concern. Almost all participants identified that high blood pressure as well as high levels of protein in the urine were signs and symptoms of preeclampsia. Basic knowledge such as what each letter of APGAR stands for were only correctly identified by 58% of the respondents. 81% of the respondents correctly reported that fetal heart rate should be monitored at least every 30 minutes in the first stage of labour while respondants were unsure about the second stage (Fig. 1).

Fig 1. Respondent's report of how often the fetal heart rate should be monitored during the 2nd stages of labour - all countries

Working environment: Only 30% of the participants replied that they were supervised. Access to education and training resources varied with 58% of participants in Benin reporting not having access compared to 15% in Malawi. Access to equipment and medication to provide quality care varied substantially. In Benin 49% of participants said equipment and medication were available compared to 73% in Tanzania.

Skills drills simulation

The skills drills simulation observation checklist contained 12 sections. The clinical performance varied by section and across countries. For three of the sections (admission, clinical history-taking, and rapid and initial assessment of the baby), less than 50% of tasks were completed.

In the other nine sections, the clinical skills and behaviours assessed were all completed by at least half of the participants, with documentation [record collected information]) scoring highest with a 71% completion rate. The results are for all countries are summarised in Figure 2.

Country specific averages for all the 12 sections of the skills drills simulation ranged 42% to 72% (Tanzania 42%, Benin 54%, Malawi 69%, and Uganda 72%)

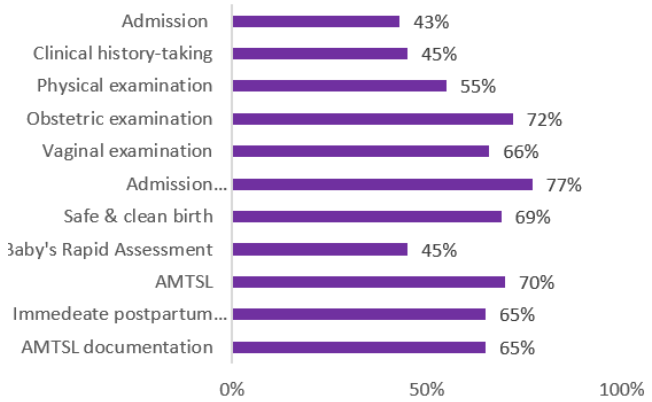

Figure 2. Skills drills simulation assessment - clinical performance by section and mean score of tasks performed – all countries

Conclusion Our study findings revealed gaps in competencies among midwifery care providers as well as gaps in the working environment. To overcome these limitations and identify pertinent solutions more research is required and substantial investments in midwifery care providers education and training, together with quality improvement strategies are needed.