

Knowledge and Skills Retention of Health Professionals in Burundi Following an ALARM International Program Training

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Introduction

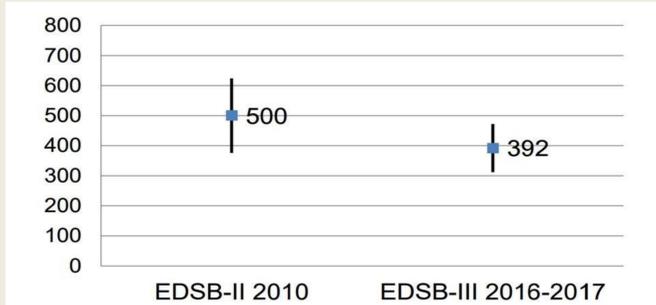
- Although improvements have been observed in recent years in Burundi, maternal and neonatal mortality rates remain high.
- Quality Basic Emergency Obstetric and Neonatal Care (BEmONC) can significantly improve maternal and newborn outcomes.
- “The project “Improving maternal and child health care for vulnerable populations in Burundi” aims to contribute to the reduction of maternal and child mortality by improving the skills of health professionals in BEmONC and strengthening community members involvement and awareness in maternal and newborn care.
- This project is a 4 year initiative (2016-2020) funded by Global Affairs Canada and led by L’Association de l’Aide à l’Enfance (L’AMIE) in collaboration with the Society of Obstetricians and Gynaecologists of Canada (SOGC).
- The SOGC ensures BEmONC and supportive supervision training of health professionals from the commune of Kanyosha in Bujumbura, capital city of Burundi.

Purpose

The main objective of this study is to describe immediate and short term improvement in BEmONC knowledge and skills following an ALARM International Program (AIP) training.

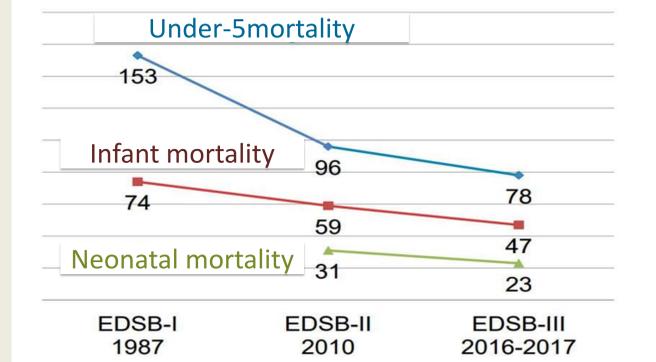


Figure 1: Pregnancy-related maternal deaths per 100 000 live births



Source: Troisième Enquête Démographique et de Santé au Burundi (EDSB-III) 2016-2017

Figure 2: Deaths per 1,000 live births in the 5-year period before the survey



Source: Troisième Enquête Démographique et de Santé au Burundi (EDSB-III) 2016-2017



Methods

- In September 2017, sixteen health professionals from Kanyosha completed a 5-day AIP course.
- A written knowledge assessment test was administered before and after the training.
- Practical skills were assessed after training through OSCEs for postpartum haemorrhage, shoulder dystocia, and resuscitation of the newborn.
- In May 2018, a refresher course was offered to 8 preselected participants who had the highest scores in September 2017.
- A written test was again administered at the beginning and end of the refresher course.
- The mean pre- and post-test scores was calculated and a t-paired test was performed to determine the statistical significance not only between pre-test and post-test scores in September 2017 but also between the September 2017 post-test scores and the May 2018 pre-test score to assess long-term retention.
- Mean Objective structured Clinical Examinations (OSCE) scores were also calculated to describe acquired clinical skills.



Results

Table 1: Participants profile

Cadres	September 2017 (n=16)		May 2018 (n=8)	
	Female	Male	Female	Male
Physicians	2	4	2	4
Midwives	2	0	1	0
Nurses	4	4	0	1
TOTAL	8	8	3	5

Figure 3: Knowledge change per cadre in percentage (September 2017)

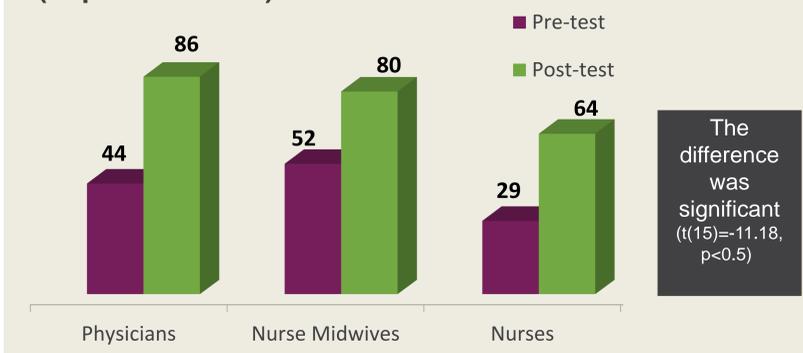


Figure 4: OSCE results per cadre in percentage (September 2017)

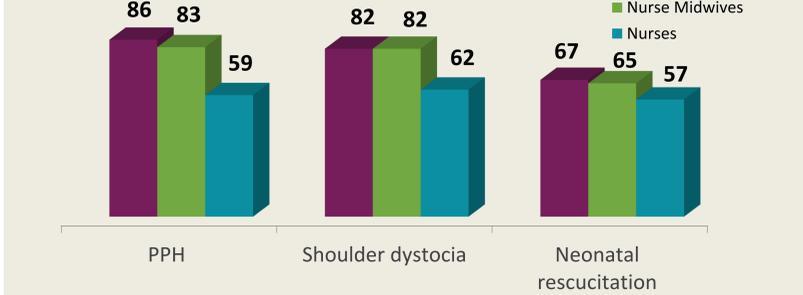
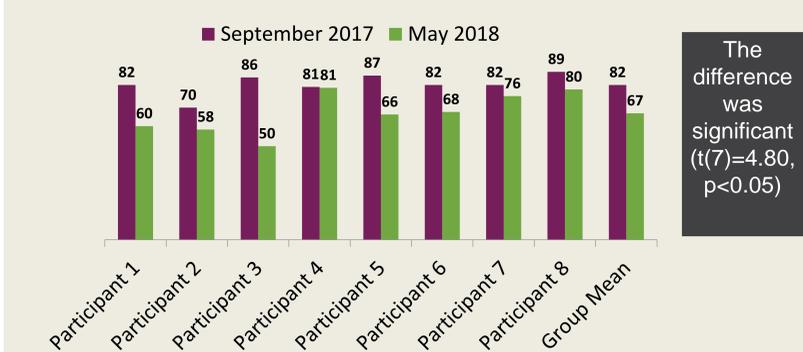


Figure 5: Knowledge change in percentage (September 2017-posttest vs May 2018-pretest)



Conclusions

- The AIP is an effective tool to improve BEmONC capacity in resource-limited settings as it addresses not only the major obstetric complications that kill mothers and babies in these settings.
- In the current study, a significant immediate gain in knowledge and acquisition of critical skills for management of common issues in BEmONC was observed in all cadres.
- However, data also revealed that knowledge significantly decreased seven months following AIP training.
- This shows the need for supervision and mentoring of trainees as well as continuing medical education (CME) following the initial training.
- The SOGC is in the process of developing an approach for distance supervision and mentoring of AIP trainees in hard-to-reach areas.

