

# THE USE OF NON-PNEUMATIC ANTI-SHOCK GARMENTS DURING POSTPARTUM HEMORRHAGE CASES IN BLANTYRE, MALAWI: A MIDWIFE-LED QI PROJECT

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## Introduction

Postpartum haemorrhage (PPH) continues to be the leading cause of maternal deaths in Malawi. The University of California San Francisco Global Action in Nursing (UCSF-GAIN) project provided nurse-midwives across 5 primary health facilities with training and longitudinal mentorship on clinical skills, including usage of the Non-Pneumatic Antishock Garment (NASG) to avert PPH-related deaths.

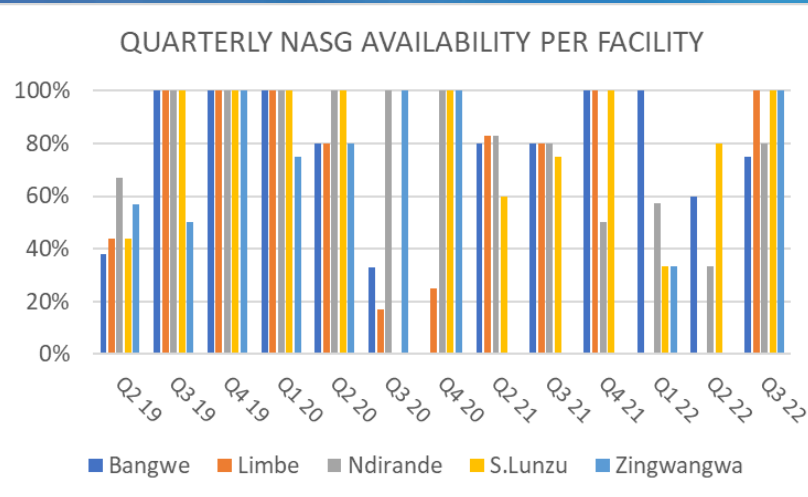
## Methods

- Each facility was equipped with one NASG prior to the QI project start.
- Data on NASG availability was collected biweekly from 5 primary health facilities by a midwifery mentor using CommCare, from April 2019 to September 2022.
- Data were presented as quarterly percent availability at each facility.
- Analysis looked at overall availability and changes over time.
- Aggregated data on NASG use was collected from the District Health Information Systems (DHIS-2).

## Change Ideas

In response to the increase in NASG use during the project, GAIN mentors advocated for:

- Increasing the number of NASGs per facility (from one to two) and providing NASGs for the referral hospital, provision of transportation for NASG collection and delivery, and training of midwives, clinicians, and support staff on usage and care of NASG at the referral hospital.



## Results

The number of unused NASGs in facilities decreased in availability from 95% (range 75%-100%) in the first quarter of 2020 to 65% (range 0%-100%) in the last quarter of 2020, **representing an uptake in use by nurse-midwives.**

These findings were backed by a spike in use of the NASG recorded in DHIS2 from 2 in 2019 to 15 in 2020. Between 2020 and 2022, no patient referred with a NASG from a project facility died from PPH.

Change idea efforts increased NASG availability from 50.6% in Q1 to 90% in Q3 of 2022.

## Discussion and Conclusions

- NASGs are an affordable lifesaving tool especially in LMICs where multiple constraints hinder access to definitive treatment and contribute to high maternal mortality rates.
- When midwives are equipped with life-saving skills and resources, reinforced with mentorship, they will use their skills to provide optimal health care.
- Though use of the NASG is essential in preventing PPH-related deaths, a holistic focus on the health system infrastructure is essential for positive health outcomes.

## References

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