Learning from Loss

Maternal and Neonatal Death Surveillance in Malawi

A woman in Malawi is 18 times more likely to die from childbirth than a woman delivering in the US\(^1\). Even compared to its sub-Saharan neighbors, Malawi’s maternal and neonatal death rates are high.

A rural clinic can alleviate maternal and neonatal mortality in low-resource communities like those near Msundwe, Malawi. In the coming months, the McGuire Wellness Center will open a new maternity ward. The surrounding population will have access to obstetric services which are otherwise difficult to get to.

Great organizations use data to make decisions. This tactic is used widely in corporations around the world, especially those providing healthcare. A lack of sufficient data challenges trailblazers like the MWC clinicians hoping to improve care in resource-poor settings. Last summer I worked with the UTHA research team and their Health Surveillance Assistants (HSAs) to establish a neonatal and maternal death surveillance system. As the management works toward opening the maternity ward, they will have access to current, local data from this new surveillance system.

The Health Surveillance Assistants (HSAs) established a network of volunteers throughout the catchment area. This enthusiastic, ever-growing group of 75 community volunteers has engaged in training and discourse surrounding maternal and neonatal health in their communities. Their primary responsibilities are to identify potential maternal and neonatal death cases, and report them to the HSA designated to their village.

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1. WHO: [http://apps.who.int/gho/data/node.country.country-MWI?lang=en](http://apps.who.int/gho/data/node.country.country-MWI?lang=en)
   Malawi neonatal death rate: 21.8 / 1,000 | Malawi maternal mortality: 510 / 100,000

   WHO: [http://apps.who.int/gho/data/node.country.country-USA?lang=en](http://apps.who.int/gho/data/node.country.country-USA?lang=en)
   US neonatal death rate: 3.6 / 1,000 | US maternal mortality: 28 / 100,000
When a maternal or neonatal death is identified, the research team allows a two-week mourning period and then conducts an audit. This involves a visit to the healthcare provider if the death occurred in a facility, and with the family of the deceased. The researcher completes an audit form developed by our project team. It includes the prompts from the Malawi Ministry of Health’s existing audit form, plus additional inquiries that provide the MCW staff with a full picture of the events surrounding the death.

**OUR FIRST REPORT**

One pregnant woman who lived in a remote part of the catchment area was HIV positive, but not taking ARVs. She went to a free clinic for a prenatal checkup where she was told she should get an ultrasound at another free facility. The free clinic was far away, and the woman feared paying transport and having to stay for days at the facility before being seen. She chose to pay for care at a private hospital. After returning home, she went into labor a few days later, at just 31 weeks’ gestation. The woman reported that she had spent her remaining money going to her prenatal clinic, and had no more for transportation to deliver at a facility. She delivered at home, and her baby passed within 48 hours.

When the research team visited the woman for the audit, she told them she had stopped taking ARVs because of the side effects. The researchers connected her to a clinic distributing ARVs so she could try another type of the medication.

**LESSONS:**

Reputation of a free clinic can deter patients. There is a need for patient and clinician education surrounding PMCTC. There is a need for transport money for mothers to deliver at a facility.
The audit is added to our database and analyzed by the Maternal/Neonatal Mortality Committee back at MWC. This group looks for patterns over time and identifies potential areas of improvement. This might be a community intervention, re-training of the clinic staff, or changes to obstetric services provided at the clinic.

WHEN AN AUDIT HIT HOME
In another neonatal death, a woman brought her newborn to the MWC. The baby had a fever, but the staff did not prescribe medication or immediate intervention. When the symptoms persisted, the woman went to another hospital, where the baby was diagnosed with sepsis. The hospital staff asked to admit her baby for regular injections, but she did not think she could afford to stay. She decided to make daily trips to the hospital. She reported traveling to the hospital the next day when the baby died in transit.

LESSON:
The case offered a learning moment for the MWC medical personnel. When it was reported, they established that any time a neonate has a fever, it must be considered sepsis until proven otherwise. Joseph Chilewani, Chief Clinical Officer, told the staff “No baby can leave this clinic with a fever and no treatment.”

The value of this audit system is not limited to the prompts on a form; it’s localized. When a mother loses her child, her neighbors will hear of the death and visit to pay respects. The MWC volunteer who informs her about the audit, built to prevent tragedies like the one she’s enduring, is also her neighbor. It’s a familiar face that arrives at her door two weeks later; someone who understands the culture and can put her at ease, making her more likely to give accurate responses about whether she got prenatal care, or where she delivered the baby.

THE PRICE OF POLICY
When I arrived in Malawi, one case had three different versions of the report, handwritten on separate audit forms. The mother had given a few different testimonies regarding where she delivered her baby. The team explained to me how a Malawi health policy requiring women to deliver in facilities is enforced: via fees paid to the village headsmen. In the villages surrounding the MWC, women who were discovered to have given birth at home owed their village headsmen a payment, often in the form of livestock such as a goat. This woman was reluctant to share the story of her delivery because of concerns about having violated the policy.

LESSON:
All audit work requires tact. Building trust is imperative for getting whole, accurate information from the caregiver who might feel ‘at fault’ for the bad outcome. But with new knowledge around the risks women face when speaking with us, we enhanced the sensitivity with which we approach the audit visit.
The surveillance covers every death in the clinic’s catchment area, providing more meaningful information to the clinic than numbers from a national database could. Our new system reports on facility deaths as well as deaths that happen in the community. The Ministry of Health has recently identified the need to audit community deaths, but seems to lack the capacity to expand their surveillance beyond deaths in facilities.

Staff at MWC are ready to improve obstetric care for their community. With this surveillance, they’ll be equipped to make decisions necessary to provide solutions that provide the most benefit for the population they serve. With support from family and friends, I was able to fund the project’s material expenses for 18 months of surveillance. This data will inform the clinic as it rolls out new maternal and neonatal services. It will train the MWC staff about surveillance and information-based decision making. It is likely to prove a valuable training ground for Malawi’s Safe Motherhood initiative, as the MOH eventually expands their surveillance to community deaths in rural areas.

Our new surveillance system provides narratives as well as data to help the MWC staff know, in detail, the circumstances around maternal and neonatal deaths in their community. It helps them make decisions that enable delivery of the highest quality care possible; quality care that the families in MWC’s catchment area deserve.