REPRODUCTIVE HEALTH matters

FEATURE

Assessing skilled birth attendants and emergency obstetric care in rural Tanzania: the inadequacy of using global standards and indicators to measure local realities

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Abstract: *Current efforts to reduce maternal mortality and morbidity in low-resource settings often depend on global standards and indicators to assess obstetric care, particularly skilled birth attendants and emergency obstetric care. This paper describes challenges in using these standards to assess obstetric services in the Kilombero Valley of Tanzania. A health facility survey and extensive participant observation showed existing services to be complicated and fluid, involving a wide array of skills, resources, and improvisations. Attempts to measure these services against established standards and indicators were not successful. Some aspects of care were over-valued while others were under-valued, with significant neglect of context and quality. This paper discusses the implications of these findings for ongoing maternal health care efforts in unique and complex settings, questioning the current reliance on generic (and often obscure) archetypes of obstetric care in policy and programming. It suggests that current indicators may be insufficient to assess services in low-resource settings, but not that these settings should settle for lower standards of care. In addition to global benchmarks, assessment approaches that emphasize quality of care and recognize available resources might better account for local realities, leading to more effective, more sustainable service delivery.*

Keywords: midwifery, skilled birth attendants, emergency obstetric care, monitoring and evaluation, Millennium Development Goals, Tanzania

This paper describes an attempt to assess obstetric care in a rural community of Tanzania, where *assess* and *evaluate* broadly refer to the process of determining the value or adequacy of obstetric services in a specific context. The initial goal of the project was to combine statistical analyses with ethnographic methods to examine inequalities in women's access to skilled attendants at childbirth. The intention was to begin by collecting baseline data on coverage of skilled attendants. Soon it became clear, however, that identifying skilled attendants would be far more difficult than anticipated. An attempt to refocus the project on access to emergency obstetric care presented its own problems, so the focus was again changed to examine access to facility-based childbirth services more broadly.[1] In planning the study, I had taken for granted accepted standards and indicators for obstetric services, assuming they would yield an accurate representation in a simple manner. This did not prove to be the case.

Assessment of obstetric services

Scientists and advocates widely agree that making evidence-based obstetric care available to all women at birth must be a leading focus for improving the health and survival of women and newborns. Experts have put forth a number of strategies by which this might be accomplished, introducing an array of terminology into the policy arena: trained attendants, skilled attendants, skilled attendance, skilled or professional care at childbirth, essential obstetric care, emergency obstetric care, home-based life saving skills, health centre intra-partum care strategy, and others. Many of these strategies have made significant contributions to maternal health, although a poor distinction between some and lack of rigorous evidence for others have also created policy challenges.[2] Two features in particular – the skilled attendant and emergency obstetric care – emerge as prominent standards for assessing obstetric care.

The skilled attendant is "an accredited health professional – such as a doctor, midwife, or nurse – educated and trained to proficiency" in the skills needed to manage normal childbirth and in the management and referral of complications.[3] In global maternal health discourses, the skilled attendant often appears along with the enabling environment (technical and broader health system supports) to form the concept of skilled attend*ance*. Graham et al (2001) define it as "the process by which a woman is provided with adequate care during labour, delivery, and the early postpartum period".[4] While various approaches for evaluating skilled attendance have been developed,[5,6] these seem to be more often used as a conceptual framework than as an intervention amenable to assessment. In contrast, the skilled attend*ant* has become a central figure in evaluation of obstetric services. Published competencies for such health professionals entail exhaustive sets of criteria that span knowledge of epidemiology to cultural sensitivity to first-line management of pre-eclampsia.[3,7,8]

Originally a package of facility-level interventions to treat common obstetric complications, emergency obstetric care (commonly known as EmOC), is now widely used to conduct needs assessments and monitor progress towards maternal health goals. EmOC categorizes obstetric services into two levels with nine "signal functions," which include three classes of parenteral drugs (antibiotics, oxytocics, anticonvulsants), manual removal of the placenta, removal of retained products of conception, assisted vaginal delivery with forceps or vacuum, caesarean section, blood transfusion, and neonatal resuscitation with bag and mask.* Qualification for comprehensive EmOC requires all nine signal functions, while qualification for basic EmOC exempts caesarean section and blood transfusion. Although needs assessment tools collect more detailed information on services, whether a facility is classified as basic, comprehensive, or neither, depends on these criteria. Minimal coverage of EmOC is five facilities per 500,000 population, at least one of which must provide comprehensive EmOC.[9]

Policy and programmes in maternal health rely heavily on these standards to assess obstetric services and plan for implementation across a range of settings. In the last decade, the skilled attendant has gained tremendous importance in reducing maternal mortality and morbidity, as the proportion of births with a skilled attendant was made a key indicator of progress toward Millennium Development Goal 5 (MDG5). At the same time, the UN promotes use of EmOC to monitor, evaluate and carry out interventions aimed at improving facility-level care. In my experience, however, attempting to assess obstetric services according to these standards raises critical questions. Given their pervasive use as primary indicators, can universal criteria and benchmarks provide valid, reliable and feasible means of determining what services are adequate? Do they enable interpretation that accounts for context, especially in terms of quality? If not, can they facilitate intervention that is effective and sustainable? These questions remain to be answered.

An obstetric services assessment in rural Tanzania

Study setting

As a former colony in Anglophone East Africa, a socialist state during the Cold War, and now an emerging capitalist democracy, Tanzania has a particular history that contributes to it position as a "developing" nation and underlies its ability to make health services available to its citizens. The estimated maternal mortality ratio in 2008 was 790 per 100,000 live births,[10] and recent decades have seen a number of government policies to reduce this ratio. Partnered by various development institutions, the most recent effort is the National Road Map Strategic Plan to Accelerate Reduction of Maternal and Newborn Mortality for 2008–2015.[11] In keeping with MDG5, this Plan aims to reduce maternal mortality by three-fourths and sets the operational target for births with a skilled attendant at 80% – up from an estimated 50% for the total population and 42% for births in rural areas.[12] Other targets include 100% comprehensive EmONC in hospitals and 70% basic EmONC in lower level facilities, where 2006 estimates were 65% and 6%, respectively.[13] Although some progress has likely been made, Tanzania is not on track to reach MDG5 or its own targets for maternal health.[14]

Located in the Morogoro region of south-central Tanzania, the Kilombero Valley is divided into two districts, Kilombero and Ulanga. The specific study setting included 25 villages within these

*Neonatal resuscitation is a more recent signal function and corresponds with the revised acronym EmONC (emergency obstetric and neonatal care).