Quality in provision of maternity services: the missing link in health-care investments in LMICs?

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In *The Lancet Global Health* Magaret E Kruk and colleagues[1] examine a very important aspect of maternal and newborn health that is poorly studied in low-income countries, namely quality of care. Poor quality of care has been a recurrent theme used to explain the prevailing high level of maternal and newborn morbidity and mortality in low-income and middle-income countries (LMICs) for several decades and is aptly articulated in two prevailing models.[2,3] The authors[1] found that the quality of care in primary care (no caesarean capacity) and low delivery volume facilities was substantially poorer than at secondary care facilities (has caesarean capacity; index score 0·38 in primary care facilities *vs* 0·77 in secondary care facilities). Of note, Kruk and colleagues[1] advance a simple composite indicator that they applied in measuring quality of care. The elements in their composite indicator are fully in line with those advanced in the existing guidelines on emergency maternal, obstetrics, and newborn care (EmONC).[4] Thus the findings of this Article[1] are of importance to both researchers, funding organisations, policy makers, and health managers in LMICs.

Data continue to show increasing numbers of facility-based deliveries with an appreciable decline in both maternal and newborn baby deaths.[5] With nearly half of all births being delivered in low volume, primary health facilities, these facilities clearly fulfill a very crucial role in ensuring that pregnant women have access to skilled birth attendants, and also might be partly contributing to the positive trends. From a geo-public health position, these primary care facilities tend to be much closer in distance to the communities they serve than secondary care facilities. They might crucially alleviate the notable delay in travelling to a viable health facility, as articulated in the three-delay model.[2] From a policy perspective, this reality needs to be delicately balanced with the findings from Kruk and colleagues.[1]

Two central issues are worth consideration. First, the idea to reorganise maternal and newborn health services, including regionalisation, needs to be delicately balanced with geospatial realities including transport referral networks. Just availing means of transport (eg, ambulances) in many instances might not suffice, because most rural remote settings where many of the maternal and newborn deaths occur might have extremely poor road networks.[6] In such a context, reduction in maternal and newborn health needs to be seen within the holistic development agenda of LMICs, not just from a health system improvement perspective. Therefore, in most LMICs, continuous financial investment in small facilities is likely to remain a requisite avenue in the overall strategy to further reduce maternal and newborn mortality. Second, quality of care as examined by Kruk and colleagues[1] is largely from the inputs of care dimension, and not necessarily from the processes and outcomes of care. Although investments in the EmONC continuum of care should be present in all facilities providing delivery services, higher level facilities are likely to be better resourced with some of the needed inputs of care such as numbers of trained personnel available than in primary care facilities. However, it might not translate to improved outcomes at these higher level facilities. Examination of quality of maternal care therefore needs to delve deeper into both health-care microsystems (processes of care) and overarching health-care macrosystems, which largely focus on inputs of care as articulated by the authors.[1] Of note, the outcomes, and not just inputs, need to be principally assessed.[3]

Although Kruk and colleagues[1] highlight pertinent issues on quality of care regarding maternity services, further research is still needed on some of the indicators used. One of the essential areas that needs further examination is how to monitor labour and predict complications. Proper monitoring of labour is the limiting step in making timely decisions, especially on whether or not to initiate a referral from lower level to higher level facilities. Since its inception, the partograph is the principle if not the only tool in use to monitor labour in most LMICs settings. Overall, partograph use in many health facilities is wanting, which severely constraints its application as a decision making tool.[7] Through concentrated efforts such as training, on-job mentouring, and supportive supervision use of the partograph could be improved. However, the adequacy of the partograph as a tool in monitoring labour and

for decision making is further compounded by its inability to show a clear association with quality of care outcomes, such as maternal or neonatal morbidity and mortality.[7] At best the partograph is a static tool that even if consistently used might not accurately discriminate between normally progressing and abnormally progressing labour.[8] By contrast with the suggestion of previous studies that only about 10% of women in labour will cross the alert line, findings[9] have shown that in some settings, this figure might well be higher than 30%.[9]

Overall, this important area of quality of care will clearly require more research to be fully understood. Better quality monitoring tools also need to be developed, with a focus on labour and labour outcome prediction. Meanwhile, to complement Kruk and colleagues' research efforts,[1] smaller facilities need to be better equipped with both the requisite and trained human resources for health care as well as with other inputs that are essential to quality provision of EmONC services.

Michael K Mwaniki
Afya Research Africa, 00202, Nairobi, Kenya
Michael.kivkiv@gmail.com

I declare no competing interests.

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