Disparity in health service delivery indicators related to reporting of adverse maternal and perinatal outcomes

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The majority of infant deaths in Kenya are due to poor perinatal outcomes, including early neonatal deaths and stillborn deliveries. Additionally, the majority of maternal deaths cluster around labour and within 48 hours of delivery.

The International Centre for Reproductive Health, Kenya through funding from the European Union, is implementing a multi-country initiative in Matuga, Kwale County namely, the Missed Opportunities in Maternal and Infant health (MOMI) project. It follows the logic of a health systems operational research and aims to reduce maternal and infant mortality through a combined health facility and community-based strategy that takes advantage of potential missed opportunities in the postpartum period. Other African partners include Burkina Faso (Kaya District), Malawi (Ntchisi District) and Mozambique (Chiuta District).

The objective of this secondary analysis was to evaluate quantitative data collected during the MOMI baseline situational analysis in Matuga to determine whether selected health service delivery indicators differ between primary care facilities which reported these adverse maternal and perinatal outcomes (early neonatal deaths, stillbirths, maternal deaths) in the national health information system compared to those that did not.

Between March and May 2012, we abstracted data from the national health information system as reported by primary care facilities in Matuga. We classified these facilities into those with a record of adverse maternal and perinatal outcomes and those without. We then clustered selected health service delivery indicators into two; those related to availability (bed capacity, health worker density) and those denoting coverage (number of pregnant women, pregnant adolescents and malnourished infants served) of health services. We calculated the median value of these health service delivery indicators and compared them between these two groups using Wilcoxon Rank-Sum Test.

Matuga sub-county has 19 primary care facilities; 17 (89%) dispensaries and 2 (11%) health centres. During the study period, 4 (24%) of dispensaries and 1 of the 2 health centres reported adverse maternal and perinatal outcomes. The median value of service availability indicators was higher for facilities without a record of adverse outcomes compared to those with such a record. Conversely, the median value of health service coverage indicators was higher for facilities with a record of adverse outcomes compared to those without. The differences were significant for the median number of nurses per 10,000 population members (4 vs. 2; p-value: 0.05).

We concluded that there is a disparity between availability and coverage of health services in Matuga, Kwale County which is related to reporting of adverse maternal and perinatal outcomes. This is probably related to irregular utilization of health services without regard to availability or lack thereof of these services. It is also likely a reflection of local community perceptions that affect demand for health services regardless of actual availability.

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