

PREventing Maternal And Neonatal Deaths in Rural Northern Ghana (PREMAND): Using Social Autopsy and GIS to Understand Neonatal Deaths and Near-Misses

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Background: Every year nearly 3 million babies die within 1 month of birth. While the clinical causes of such deaths are well known, few understand the complex social and cultural antecedents that increase the likelihood of deaths from largely preventable causes. In addition, little is known about the geographic variability of these factors – preventing interventions from addressing the local context and thus being maximally effective.

Methods: This study prospectively identifies all neonatal deaths and “near misses” – or those babies who suffer a life-threatening complication but survive – in four districts across northern Ghana. Deaths are identified through community volunteers, field workers, and health care providers. Near-misses are identified by local health care providers relying upon WHO clinical criteria. The project aims to: 1) use Social Autopsy methodology to determine the social and cultural factors associated with deaths, 2) conduct sociocultural audits to determine factors associated with near-misses, 3) use geographic mapping technology to visualize the spatial relationships between social and cultural factors and mortality and near-misses to inform local programming.

Findings: In the first 12 months of an 18-month data collection window, 189 neonatal deaths and 66 neonatal near-misses were identified. More than two-thirds of all deaths (68.7%) occurred among families living greater than 5km from a hospital or health center, compared to less than half of near-misses (48.9%). At the same time, families who experienced a neonatal death were less likely to have the mother of the baby involved in health-care decision making than families who experienced a near-miss. Less than 15% of families who experienced a neonatal death said that the mother had the strongest voice in deciding when and where to take the baby for care, compared to 34% of families who experienced a near-miss.

Interpretation: While distance to facility is one potential determinant of whether newborns survive a life-threatening complication in rural northern Ghana, other social and cultural factors – such as maternal health-care decision-making autonomy – also play an important role. Further analysis is required to determine the relative impact of geography, clinical diagnoses, and social and cultural factors in determining neonatal outcomes in resource-poor locations.

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Improving Breastfeeding Practices at the Community Level: Result from Sinazongwe District, Zambia

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Background: Breastfeeding has been accepted as one of the most important intervention to enhance growth and development of a child. It satisfies an infant's nutritional and emotional needs better than any other methods of infant feeding. In order to achieve maximum benefit of breastfeeding for both mother and infant, there is a need for proper attachment and positioning. The purpose of this project was to teach mothers proper attachment and position during breastfeeding.

Methods: The Sinazongwe district hospital and the Sinazongwe Area Development Project of World Vision joined the rest of world from August 1st to August 7th to celebrate the 2016 world breastfeeding day on the theme “raising awareness of the links between breastfeeding and the Sustainable Development Goals”. Forty-eight breastfeeding mothers were recruited during the week from Sinazongwe district hospital postnatal clinic to undergo a day's workshop on the important of breastfeeding, attachment and position during breastfeeding.

Findings: Three mothers were randomly selected to demonstrate how they usually breastfeed their infants. After each mother's demonstration, other mothers were asked to mention what went right or wrong. None of the three mothers was able to demonstrate infant breastfeeding with appropriate positioning and attachment. In addition, majority of the women could not identify what went wrong while the other three mothers demonstrated the breastfeeding. Workshop facilitators including nurses and midwives educated the mothers on proper breastfeeding position and attachment. The mothers were also taught proper hygiene technics such as hand washing before and after breastfeeding and oral hygiene for infants. Other topics including benefits of breastfeeding to the mother, infants, community and the nation were also covered.

Interpretation: Proper positioning and attachment during breastfeeding make the difference between a happy, comfortable and successful feed and one that is painful for mothers and frustrating for the baby. Given that none of the three mothers could not demonstrate proper positioning and attachment during the demonstration, a need exists to develop breastfeeding education program and also use culturally appropriate methods to disseminate this program among postpartum women in the Sinazongwe district.

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A Comparative Study of Sickle Cell Disease Related Maternal Mortality at Korle-Bu Teaching Hospital, Accra, Ghana

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Background: Sickle cell disease (SCD) is one of the most common inherited genetic diseases, affecting an estimated 30 million individuals worldwide. The greatest burden of SCD falls on Sub-Saharan Africa, where over 200,000 babies are born with the disease annually. Due to advances and improvements in medical care, survival of children with SCD has greatly increased, resulting in a significant