

# Obstetric complications affect the long-term survival of women in Burkina Faso

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## ***Abstract***

**Background:** In low-income countries, maternal ‘near-misses’ are often considered obstetric successes because ultimately the woman’s life was saved, yet little is known about the long-term survival of women who experience such complications. Our aim was to determine the extent to which the experience of a near-miss complication compromises longer-term (3-4) year survival, to explore the likely medical and health systems reasons for deaths that occur subsequent to such complications and to consider possible implications for global safe motherhood strategy.

**Methods:** We did a prospective cohort study with a nested ethnographic component of 1014 recently pregnant women, including 337 women with near-miss complications, sampled from seven referral health facilities across Burkina Faso. For every woman with near-miss complications, two unmatched control women with uncomplicated delivery were sampled in the same health facility (677). The cohort was followed for a four-year period. Detailed enquiries on deaths identified during follow-up were conducted using verbal autopsies and in-depth interviews with family members and care-takers.

**Findings:** Women were significantly more likely to die after hospital discharge following near-miss complication than after uncomplicated delivery throughout the duration of the follow-up (4% vs. 0.7%). Of 15 deaths among this group, more than half were pregnancy-related (6 ‘late’ maternal deaths and 3 maternal deaths in subsequent pregnancies), often from unresolved problems related directly or indirectly to the initial near-miss complication. By contrast, no pregnancy-related deaths were identified among women with uncomplicated delivery. HIV/AIDS was an important underlying cause of death in both groups as well as other chronic illnesses such as hypertension or tuberculosis. In-depth interviews identified a range of health systems weaknesses contributing to pregnancy-related deaths among women who initially survived maternal near-misses. Poor continuity of care manifested as premature discharge, lacking post-partum follow-up, unmet need for contraception, lack of treatment for underlying morbidity, lack of follow-up of subsequent high-risk pregnancies and inadequate emergency care in subsequent deliveries. Social determinants and economic barriers were identified as important contributing factors to women’s premature death.

**Interpretation:** Surviving a maternal near-miss does not necessarily imply that a woman’s pregnancy-related death has been averted. Analysis of women’s death following near-miss events reveals systemic failures to provide a continuum of care spanning individual women’s life cycles and specialist and general healthcare. The findings support the need for comprehensive primary healthcare strategies to improve women’s survival, rather than vertical Safe Motherhood strategies focusing exclusively on intrapartum care.

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