## Determinants of stillbirths in Sub Saharan Africa: a systematic review

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## Abstract

Background: Sub-Saharan African (SSA) countries have high stillbirth rates compared to high-income countries, yet research on risk factors for stillbirth in SSA remain scant. Objectives: To identify the modifiable risk factors of stillbirths in SSA and investigate their strength of association using a systematic review. Search Strategy: EMBASE, MEDLINE, Global Health, and CINAHL Plus databases were searched for literature. Selection Criteria: Observational population- and facility-level studies exploring stillbirth risk factors, published between 2013-2019 were included. Data Collection and Analysis: Narrative synthesis of data was undertaken and the potential risk factors were classified into sub-groups. Main Results: Thirty-seven studies were included, encompassing 20,264 stillbirths. The risk factors were categorized as maternal antepartum (0-4 antenatal care visits, multiple gestations, hypertension, birth interval >3 years, history of perinatal death); socioeconomic factors (maternal lower wealth index and basic education, advanced maternal age, grand multiparity ([?]5)); intrapartum (direct obstetric complication, non-vaginal delivery); fetal (low birthweight and gestational age <37weeks) and health systems (poor ANC quality, emergency referrals, ill-equipped facility). The proportion of unexplained stillbirths remained very high. No association was found between stillbirths and HIV, BMI, diabetes, and distance from the facility. Conclusion: The overall quality of evidence was low as many studies were facility-based and did not adjust for confounders. This review identified preventable risk factors for stillbirth. Focused programmatic strategies should be developed to improve antenatal care, emergency obstetric care, maternal perinatal education, referral and outreach systems, and birth attendant training. More population-based high-quality research is needed. Funding: Not externally funded

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