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Interpretation: Programs involving an integrated package of interventions addressing systems change, capacity building and leadership development have the promise to be highly cost effective in preventing maternal and neonatal mortality in low resource settings. Further research is needed to assess whether these results are unique to the particular circumstances of this implementation or whether they are applicable in other settings.

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Abstract #: *2.016_WOM*

Differences and Determinants of maternal mortality ratio in Sub-Saharan African countries.

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Background: Reducing maternal mortality ratio (MMR) was a primary target of the Millennium Development Goals (MDG5a). In Sub-Saharan Africa only three countries achieved the MDG5a and MMR is still high in the region. This study aims analyzing the data among Sub-Saharan countries that did not achieved the MDG5a and defining the determinants affecting MMR.

Methods: Data were obtained from WHO, UNICEF, World Bank, UNDP, and health departments. Forty five countries were divided into four groups according to WHO classification: making progress (MP) insufficient progress (IP), no progress (NP) and achieved the goal (A). Twenty indicators were divided into four areas: social, health, education, and economic. Descriptive statistics was applied to compare the groups and correlation analysis to examine the relationship between MMR and the indicators.

Findings: Correlation analysis showed a significant negative correlation between MMR and HDI (-0.768), literacy rate (-0.739), hospital beds (-0.639) skilled attendance at birth (-0.660), contraceptive prevalence (-0.590), improved sanitation facilities (-0.587), and the number of nurses and midwives (-0.508). Fertility rate (0.750) and adolescent birth rate (0.700) showed a strong positive correlation with MMR. Comparison analysis showed large gaps between the countries that achieved the goal and the other three groups.

Interpretation: To reduce the gaps of MDG5 and to accelerate achieving - SDG3.1 in Sub-Saharan Africa, it is important to improve determinants within the health system, but also social, education, and economic determinants are critical. Higher level of education, more health resources, and increasing expenditure on health appears to be a requisite.

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Abstract #: *2.017_WOM*

An Innovative, Mobile-health Enhanced, Peer-counseling Program to Improve Breastfeeding among Low-income, Minority Populations in Washington, DC

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Program/Project Purpose: Breastmilk is associated with reduced childhood obesity, asthma, infectious diseases, and sudden infant death syndrome, all of which disproportionately affect minority and low-income children in the US. Yet, breastfeeding rates are lower among low-income populations compared to the general population. Research has shown that peer-counselors, who come from the same culture and community and have experience breastfeeding, are effective in providing education and social support to improve breastfeeding behavioral outcomes. However, access to peer-counselors is limited; the use of e-technology can bridge this gap to reach low-income women with text messages. One-way texts provide consistent communication and high quality messages at low cost, and 2-way texts can respond to immediate needs with specific behaviors and support. BfedDC, a text-messaging program with 2-way texting capacity for peer-counselors was piloted in Washington DC clinics that are part of the US national assistance program for low-income families, ie WIC clinics, to address this need.

Structure/Method/Design: Two sets of text messages were designed, one for pregnant participants and another for mothers after delivery and into the first year of life; both available in Spanish and English. We examined process indicators (number participants enrolled, number dropped out, frequency of messaging, etc.) to understand the coverage and quality of the BfedDC program, and to link to breastfeeding behavioral outcomes.

Outcome & Evaluation: Coverage: 38.6% of those eligible enrolled in the program and within this total, about 40% of those had no prior experience breastfeeding. 5.6% of participants opted out of the program early. Quality: 1-way breastfeeding educational messages were delivered regularly, and 2 way texting conversations between mothers and peer counselors were observed in 13.5% of cases. Mothers most often texted questions about milk supply, latching, number of months to breastfeed, pumping and when support groups were occurring.

Going Forward: Significant work remains to address breastfeeding disparities particularly among low-income and minority populations. Our process data results informed the large scale implementation of BfedDC in Washington DC Process evaluation activities will continue as the program matures and will be linked to breastfeeding outcomes to determine the impact of the intervention on breastfeeding initiation and continued breastfeeding at 6 months.

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Abstract #: *2.018_WOM*

Trends in Breastfeeding and Cesarian sections over a 20 year period in 40 low and middle income countries

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Background: WHO recommends that mothers initiate breastfeeding within the first hour after childbirth, **exclusively** breastfeed