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MDGs and SDGs

Explaining disparities in use of skilled birth attendants in developing countries: a new conceptual framework

Patience A. Afulani[1], Cheryl Moyer[2]; [1]Department of Obstetrics, Gynecology, & Reproductive Sciences, School of medicine, University of California, San Francisco, [2]Departments of Learning Health Sciences and Obstetrics & Gynecology and Global REACH, University of Michigan

Background: Despite some progress, most countries in sub-Saharan-Africa (SSA) did not achieve the MDG to reduce maternal mortality by three-quarters between 1990 and 2015. A major reason is the low use of skilled birth attendants (SBAs)—a critical intervention to reduce maternal mortality—especially among women of low socioeconomic status (SES). But few studies have empirically examined the factors underlying these SES disparities, potentially because current models/frameworks do not provide clear pathways for how distal factors like SES affects maternal-health-seeking behaviors. In this paper, we propose the Disparities in Skilled Birth Attendance (DiSBA) framework for examining sources of disparities in use of SBAs, and empirically test the assumptions of the framework.

Methods: We use data from the 2007 Ghana Maternal Health Survey—the first and only nationally representative population-based survey to collect comprehensive information on maternal morbidity and mortality in Ghana. Our sample includes women with a birth in the five years preceding the survey (N=4,868). The primary outcome is delivery by a SBA—i.e. whether a doctor, nurse, or midwife assisted the last delivery. We use logistic regression with mediation analysis to examine intervening effects. This study was granted an exemption under the UCLA IRB for research using existing data.

Findings: The DiSBA framework posits that three proximal factors—perceived need, perceived accessibility of maternal health services, and perceived quality of care—directly affect use of SBAs. Distal factors like SES affect use of SBAs indirectly through these proximal factors. Our analyses support these hypotheses. For example, use of SBAs increases with education and wealth, but perceived need, access, and quality account for about 23% of the difference between women with no education and those with primary education, and about 55% of the difference between women in the lowest and middle wealth quintiles ($p<0.01$).

Interpretation: This study suggests that the proximal factors are worthy of increased attention. These factors are more amenable to change than the distal factors and their contributions are likely context specific. To make progress towards reducing maternal mortality in SSA, we need to understand the important proximal factors in different contexts to develop appropriate interventions.

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Towards polio eradication: Randomized control trial assessing OPV transmissibility in mexican communities

Clea Sarnquist[1], Marisa Holubar[1], Lourdes Garcia-Garcia[2], Leticia Ferreyra Reyes[2], Rogelio Montero-Campos[2], Luis Pablo Cruz-Hervert[2], Aisha Talib[1], Meira Falkovitz Halpern[1], Elizabeth Ferreira[2], Guadalupe Delgado[2], Jonathan Altamirano[1], Sergio Canizales-Quintero[2], Yvonne Maldonado[1]; [1]Stanford University School of Medicine, Department of Pediatrics, Stanford, CA, USA, [2]Instituto Nacional de Salud Pública, Cuernavaca, Mexico

Program/Project Purpose: Polio post-eradication policy must account for potential WPV and/or OPV re-emergence as OPV is replaced by IPV, per the World Health Assembly's 2012 Polio Eradication and Endgame Strategic Plan. However, significant knowledge gaps in OPV transmissibility in the presence of IPV exist. We performed a RCT to measure inter- and intra-household OPV circulation in three IPV-vaccinated Mexican communities with varying OPV coverage. Mexico serves as an ideal project site, with both routine IPV and bi-annual OPV vaccination. The project began in September 2014 and will be completed by March 2017.

Structure/Method/Design: The project began with a census of all households in three localities in Orizaba, Veracruz, Mexico (n=2653) to collect demographic information and assess RCT eligibility. 150 households in each community were randomized to the OPV-vaccinated or non-vaccinated arm of each cluster and were eligible to participate if they had 1 healthy child ≤ 5 with up-to-date IPV vaccination. Eligible children from households in the OPV-vaccinated arm were further randomized to either receive OPV or remain unvaccinated. Localities received different OPV coverage, 10%, 30%, and 70%. One eligible child per household in the OPV-vaccinated arm was vaccinated. 10 stool samples were serially collected from members of enrolled households over 90 days. These samples are being analyzed for OPV serotypes to assess OPV transmission in these communities.

Outcome & Evaluation: The clinical portion of this project is completed. Census data were collected from all households in the localities from December 2014 – January 2015. Stool samples, and survey data assessing adherence, were then collected from all participants.

Going Forward: The analysis of the collected stool samples is ongoing. Intra- and inter-household OPV transmission rates will be compared among the 10%, 30% and 70% vaccination households. The impact of IPV and varying OPV vaccination rates on transmission of OPV will be determined.

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