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food insecurity 63% (N=19), vulnerable populations 80% (N=24), chronic conditions 53% (N=16), hygiene 33% (N=10), regional destabilization 30% (N=9), dust 10% (N=3), injury 17% (N=5), and a failure of stakeholders/government to address community needs 67 (N=20).

**Interpretation:** The findings of this study have highlighted the importance of better understanding the community health concerns and to further investigate the major health sub-domains, specifically regarding pathogens and water.

**Source of Funding:** College of Public Health and Health Professions, University of Florida.

**Abstract #:** *2.085_HHR*

### We Call Them Miracle Babies': How Health Care Providers Understand Neonatal Near-Misses at Three Teaching Hospitals in Ghana

***L.V. Wynn***[1], *M.A. Bell*[2], *D.A. Bakari*[3], *D.P.S. Oppong*[4], *M.J. Youngblood*[2], *M.Z. Arku*[5], *R. Adanu*[6], *D.C. Moyer*[2]; [1]*University of Michigan Medical School, Ann Arbor, Michigan, USA,* [2]*University of Michigan, Ann Arbor, USA,* [3]*University of Michigan, Kumasi, Ghana,* [4]*Korle-Bu Teaching Hospital, Accra, Ghana,* [5]*Cape Coast Teaching Hosital, Cape Coast, Ghana,* [6]*University of Ghana, Legon, Ghana*

**Background:** Despite global efforts to reduce neonatal mortality, sub-Saharan Africa continues to bear a disproportionate burden. In addition, newborn morbidity is a significant challenge and may provide an increasingly important metric by which to measure improvements in the health care system. One potential metric is the concept of a "near-miss," or when a baby experiences a life threatening condition but survives. This term is relatively new, and it is not clear how providers conceptualize or value this categorization. This study sought to address such questions through qualitative interviews of doctors and nurses working in the neonatal intensive care units (NICU) at three teaching hospitals in southern Ghana.

**Methods:** Three physicians and three nurses were selected from each of the NICUs at the Korle Bu Teaching Hospital, Komfo Anokye Teaching Hospital, and Cape Coast Teaching Hospital in Ghana (N=18) to participate in qualitative interviews about their experiences and perspectives on neonatal near-misses. Interviews were conducted one-on-one using a semi structured interview guide with additional probes. Interviews were recorded and transcribed verbatim. Transcripts were entered into NVivo 10.0, a qualitative software analysis package and main codes were identified.

**Findings:** Preliminary results suggest that doctors and nurses working in the NICU do not have a universal understanding of near-miss. However, 15 out of 18 interviewed suggested that a "near-miss" classification might dictate different ongoing management of critically ill babies, allowing more attention and prompt interventions to be directed to babies identified as a "near-miss". A few providers did not want the label of "near-miss" to divert their attention from ill babies whose condition may rapidly deteriorate despite not initially qualifying as a "near-miss".

**Interpretation:** The issue of neonatal morbidity and mortality is extremely complex, especially in under-resourced settings. Although the health care providers had different understandings regarding a near-miss, a majority were favorably inclined toward a near-miss classification, but some feared that such classification may create a false distinction, in that most newborns ill enough to be in a NICU in a low-resource country are extremely sick. While a near-miss distinction may be useful for researchers, further research is needed to determine the value of adding a near-miss distinction to clinical care routines.

**Source of Funding:** University of Michigan.

**Abstract #:** *2.086_HHR*

### Strengthening the Free Healthcare Initiative and Hospital-Based Service Delivery in Sierra Leone through a hospital-based Social Worker program

***S. Yamba***[1], *K. Barron*[2], *S. Hernandez*[1], *R. Azcueta*[1], *J. Gassimu*[1], *R. Carshon-Marsh*[3], *K. Dierberg*[4], *R.H. Marsh*[5]; [1]*Partners In Health, Koidu, Sierra leone,* [2]*Partners In Health, Kono, Sierra leone,* [3]*Koidu Government Hospital, Koidu, Sierra leone,* [4]*Partners In Health, Freetown, Sierra leone,* [5]*Partners In Health, Boston, Massachusetts, USA*

**Program/Project Purpose:** In 2010, the Sierra Leonean Ministry of Health and Sanitation implemented the Free Healthcare Initiative to improve health service delivery, providing free care for pregnant and lactating women, children under 5, and people with HIV and TB. The goal was to increase service utilization and decrease mortality; however, the 2013-2015 Ebola epidemic undermined service delivery at all levels of the health system, particularly in hospital-based care.

Partners In Health (PIH) has supported Koidu Government Hospital (KGH) since 2015. To improve quality of care, we implemented a comprehensive social work (SW) program in the pediatrics and maternity wards, and for patients living with HIV and TB.

**Structure/Method/Design:** At the 160-bed hospital, our team employed 1 SW supervisor and 6 social workers. None had formal training in SW previously, but all demonstrated commitment to social justice and patient rights, and were provided orientation and on-the-job training.

All admitted FHCI inpatients are screened by the SW team daily. Social workers ensure that medications are provided for free, as well as blood bank, laboratory, radiology and dietary services. They identify socio-economic vulnerabilities and work with the clinical team to address gaps that impact care. They serve as patient advocates and accompany patients to other facilities for clinical care and diagnostic testing. Supervision is provided daily by the program supervisor and weekly by the clinical team.

**Outcome & Evaluation:** An average of 208 patients are screened weekly, and 26 referrals to other facilities are supported. In qualitative review, patients report increased ability to access hospital-based services and decreased stigma and need to pay out-of-pocket. In 2016, amongst all district hospitals, KGH was identified as the most successful and transparent implementer of the FHCI. The SW program has stewarded this program to its success.

**Going Forward:** Our SW program has now expanded to include patients outside the FHCI, as our experience has shown that all

patients can benefit from the administrative, logistical and emotional support offered by the SW team. We propose this as a successful, low-cost program, which can easily be replicated at other hospitals to improve service delivery for admitted patients.

**Source of Funding:** Funded by PIH-Sierra Leone through private donations.

**Abstract #:** *2.087_HHR*

### Barriers and Facilitators of the Referral System of the Communityßbased Newborn Care Initiative in Ethiopia: An Audit of 546 Cases

***Y.B. Yeshanew***[1], *A.M. Karim*[2], *W. Betemariam*[1], *N. Fesseha*[1]; [1]*JSI Research & Training Institute, Inc., Addis Ababa, Ethiopia,* [2]*JSI Research & Training Institute, Inc., Arlington, Virginia, USA*

**Background:** About 82,000 newborns still die every year in Ethiopia mainly due to sepsis, asphyxia and prematurity. To curb this situation, the Government of Ethiopia (GoE) implemented community based newborn care (CBNC). The strategy trained health extension workers (HEWs) at the health posts level to manage local infections, birth asphyxia, and prematurity and identify and refer cases of neonatal sepsis (i.e., very sever disease [VSD]) to health centers (or higher level facilities) after providing a pre-referral dose of antibiotics. When referral was not possible, then the HEWs were instructed to treat the VSD cases. To inform the CBNC program, this study examines the factors (i.e., barriers and facilitators) influencing 1) HEWs to refer VSD cases to health centers; and 2) compliance of caretakers to the referrals made by the HEWs.

**Methods:** JSI supported CBNC implementation in 2,924 health posts in 122 districts covering about 18 million people. The required sample size for the study was 540 VSD cases (expecting 23% of VSD cases will be referred, ±5% precision, 95% confidence interval, and design effect set at 2.0). To obtain the sample, 140 health posts in the JSI supported areas that reported four or more VSD cases during July 2015—June 2016 were visited and the caretakers of 546 VSD cases interviewed (response rate was 94%). Multivariate logistics regression was used to assess whether age, education, and wealth of the caretakers; distance from health facility, antenatal care, institutional delivery, postnatal care, use of referral slip, advice on transportation, and facilitating ambulance use were independent factors influencing referrals.

**Findings:** About 23% (n=125) of the VSD cases were referred by the HEWs to the health centers of which 72% (n=90) of the caretakers complied. Receiving postnatal care was the only statistically significant ($p<0.05$) independent predictor. It was associated with 72% higher likelihood of cases being referred and 4.4 times more likelihood for the caretakers to comply with it.

**Interpretation:** Since a large segment of the VSD cases are managed by the HEWs, ensuring the quality of the services provided is imperative. Increasing the coverage of postnatal care will likely improve the performance of the CBNC referral system.

**Source of Funding:** UNICEF.

**Abstract #:** *2.088_HHR*

### RE-AIMing Program Design and Implementation: A Preliminary Process Evaluation of a Workforce Development Program

***A. Yoos****, T. Kenigsberg, E. Willacy; Centers for Disease Control and Prevention (CDC), Atlanta, GA, USA*

**Program/Project Purpose:** Recent outbreaks and emerging public health concerns have underscored the critical need for global workforce development. The Improving Public Health Management for Action (IMPACT) Program, developed by the Centers for Disease Control and Prevention (CDC), aims to improve public health management capacity in low-to-middle income countries. Partnering with Ministries of Health (MOHs), the two-year fellowship trains entry-level professionals through didactic instruction, field-based assignments, and structured mentorship and supervision. In 2016, pilot programs began in Bangladesh and Kenya.

**Structure/Method/Design:** The principal goals of the program are to build a cadre of highly-skilled public health managers and increase the effectiveness of public health systems to improve health outcomes. The program also aims to establish country ownership and engagement through stakeholder involvement (e.g., steering committee) and program contextualization.

To assess program goals, IMPACT is conducting a mixed-methods process and outcome evaluation utilizing the Reach, Efficacy/Effectiveness, Adoption, Implementation, Maintenance (RE-AIM) Evaluation Framework. Health promotion programs traditionally utilize RE-AIM to assess the individual and institutional impact concurrently. Although workforce development programs rarely use RE-AIM, it provides a multi-layered framework that allows for examination of the structural and political factors affecting the program and its sustainability.

**Outcome & Evaluation:** To date, IMPACT has completed the preliminary process evaluation. In terms of Reach, IMPACT's applicants and selected fellows were from diverse districts and backgrounds. Evaluation results thus far demonstrate course Effectiveness; participants report knowledge gain, and observations of fellows indicate increased competency.

MOH and stakeholder engagement in IMPACT's design, contextualization and implementation showed success in Adoption; each country modified the program design and provided country-specific examples. During Implementation, IMPACT courses were taught by a diverse group of instructors from CDC, the MOHs, local universities, and nongovernmental organizations. Instructor observational analysis revealed fidelity to IMPACT's learning objectives and teaching methods.

Further analysis will continue on all the aspects of RE-AIM as the program progresses.

**Going Forward:** The process evaluation found that adherence to project timelines was challenging. Security issues, inadequate time estimates for government processes, and difficulties in international coordination were the main causes of delays. IMPACT will adjust future timelines for new programs. Despite delayed activities, overall, the process evaluation indicates progress towards programmatic goals.