POSTER CONTEST FINALISTS

Impact of helping babies breathe training on the change in knowledge, attitude and practice among community health care workers in Jimma region, Ethiopia

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Background: While Ethiopia has shown a significant improvement in neonatal mortality, rates remain high at 29 per 1000 births. Most of these deaths can be prevented through cost-effective and quality-delivered interventions. This is phase I of a two-phase intervention aimed at reducing neonatal mortality in a health center in rural Ethiopia utilizing HBB. Phase II of this study will be to assess change in practice of those who attended HBB sessions. We believe that this gain in knowledge and change in practice will lead to a decrease in neonatal mortality over time.

Methods: Community health workers attended one of three HBB training sessions provided at a health center in Asendabo, Ethiopia. A multiple-choice survey was given before and after each session. The questions assessed knowledge gained, attitude toward applying the knowledge and confidence in using a bag-valve mask on a newborn. The percentage of correct answers was calculated for each pre and post-test (correct answer/total surveys x 100). These were compared for change (post % correct − pre % correct) to assess the impact of the training.

Findings: Overall, there was a 29% increase in knowledge, 6.95% increase in confidence with the techniques taught, and a 75.13% reported change in attitude after the session. Midwives showed the greatest change in knowledge (36.67%) and attitude (83%). Extension workers felt most comfortable with the bag-valve mask, showing a 38.10% increase in confidence. 100% of participants believed the session to be useful.

Interpretation: Our results indicate that midwives are more likely to implement the training into their daily practice. Nurses and nursing students had the least amount of confidence in using the mask (−17.65%), showing a need for more hands-on training. Significant confidence was gained by the extension workers, illustrating the importance of making this course available annually. To make these positive changes more sustainable, we have recruited a midwife at the Asendabo Health Center who will act as a local liaison to provide continuing support for future healthcare providers. We are also in contact with the clinic to continue tracking neonatal mortality rates and plan for future HBB sessions in subsequent summers.

Abstract #: *1.001_PCF*

Global health in former soviet nations: investigating the determinants of cardiovascular health across Armenia

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Background: Since the dissolution of the USSR, the health of its former states' populous has experienced a decline in health due to the concomitant fragmentation of their economic and political structures. Perhaps the most salient example of this trend is the Republic of Armenia, which has experienced a decline in health largely attributable to noncommunicable disease (Rechel, 2014). As rates of overweight and obesity have reached 55.5% and 24%, respectively (WHO, 2010), associated cardiovascular disease has come to account for 54% of all deaths in Armenia today (WHO, 2014).

Methods: To elucidate the factors underlying these trends, collaborative cross-sectional research was conducted by the University of Utah's Global Health Armenia program in conjunction with Yerevan State Medical University in summer 2015. In accordance with CBPR methodology, five regional clinics spanning Armenia were identified by local collaborators, where 517 participants were selected by random-intercept sampling for surveying of demographic and healthy lifestyle information alongside BMI and blood pressure.

Findings: The mean age of respondents was 47.25 (SD=14.4), with 84% being female and 70% living in urban areas. Rates of overweight (BMI = 25-29.9) and obesity/extreme obesity (BMI = 30+) were 26.89% and 43.13%, respectively. Significant differences were revealed in BMI among gender (p = 0.029), rural and urban residence (p = 0.0223), education level (p =< 0.0001), knowledge of English and Russian languages (p = 0.0003), and financial status (p = 0.0064), whereas, surprisingly, none was found among BMI and self-reported frequency of exercise or leafy, green vegetable consumption. Additionally, recorded systolic blood pressures categorize 61% of participants as pre-hypertensive or hypertensive by WHO guidelines.

Interpretation: These data provide novel insight into an emerging non-communicable disease crisis in Armenia, a region largely ignored by existing literature. Indeed, former Soviet nations present themselves as a new frontier in global health owing to the comparative lack of knowledge existing or applied therein. Thus, the correlates to cardiovascular health identified by our research will allow the design of targeted, intervention-based programs aimed at ameliorating the region's cardiovascular disease epidemic.

Abstract #: *1.002_PCF*

The implementation of an app-based dataset for injury data acquisition in Montevideo, Uruguay

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Background: 90% of injuries occur in low-and middle-income countries (LMIC). It has been demonstrated that trauma databases are one of the most effective ways of preventing, improving the treatment and reducing the mortality due to trauma. However, LMICs often lack such databases because of limited resources. This study focused on how to improve trauma data collection in