

to identify both risky and protective biological, behavioral, environmental, and other exposures, especially those that are worldwide threats and those that disproportionately affect children, low-income people, and other vulnerable populations.

Going Forward: Under the PRIDE model, global health is a broad field. However, clinical advances that are not likely to be accessible to a large proportion of the world's population are not global health discoveries, just as epidemiological or economic studies conducted in one low-income country are not global health studies if they do not yield readily generalizable results.

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Abstract #: 1.069_NEP

Contemporary vaccination trends in young adults: study at a rural state university

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Background: the surge in incidence of vaccine preventable deaths in the United States (U.S.) reflects the declining vaccination rates among young adults. One of the factors associated with the decrease in vaccination rates is philosophical exemptions that lead to vaccination waivers. Individual marginal circumstances coupled with a rise in vaccine waivers may fuel a generation of vaccination averse, unvaccinated individuals leading to geographical clustering of vaccine preventable diseases nationally that will subsequently produce a global health concern. Not much is known about the benefits, barriers and influencers of vaccination in young adults. The aim of this study is to identify contemporary vaccination trends in young adults.

Methods: the study used a cross-sectional study design. Data collection is on-going. The survey instrument was finalized after piloting the instrument with 100 random participants. The unit of measure are students from Ferris State University (FSU), a rural Michigan state university. FSU student population closely approximate the national socioeconomic profile. Exploratory analysis are used to identify contemporary trends. The study received –exempt-status from the institution's IRB board.

Preliminary findings: over 83% of 816 students were up to date on their vaccinations while approximately 8% of them signed or had someone sign a vaccination waiver. Effective control against disease is the most important benefit of vaccinations for about 67% of the students. Safe to use and easy to administer vaccines have the most important influence on the willingness to be vaccinated for about 56% of the students. The risk of an adverse event greater than the intended benefit appears to influence access to vaccination in about 14% of students which is a plausible explanation for only about 66% of the students feeling that vaccinations and autism are not at all related.

Interpretations: preliminary findings suggest an underlying relationship between risks of adverse events outweighing the benefit of vaccination. This finding can inform the expansion of young adult vaccination programs at university campuses that allow philosophical exemption resulting in vaccination waivers. Future analysis include modelling strategies to identify associations between marginal circumstances and vaccination status.

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Abstract #: 1.70_NEP

RDS affected neonatal conditions and the health care situations in different health care settings

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Program Purpose: Respiratory distress syndrome (RDS) is a common lung disorder and foremost contributor to neonatal mortality worldwide. The technologies for RDS-treatments in resource constrained settings are insufficient. The objective is to better understand the scenario of the RDS-affected neonatal conditions and the health care system in different health-care settings.

Study Method: A review of current neonatal health facilities & scenario related to RDS in Karnataka–India was carried out. We invited opinions, experiences, information and feedback from 31 different levels of clinicians by direct interview from the various levels of hospitals i.e. primary, secondary and tertiary hospitals and results were analyzed.

Outcome: According to our data 75% of the referred hospitals receive neonates from primary & secondary hospitals which require safe transportation. Average distance & transport time between referring hospitals and referred hospitals is 30 Kms & 45 mins respectively. Maximum referral travel is about 300Kms. About 73% of hospitals don't have any designated vehicles (Ambulances) for such transports. Most parents prefer to use own vehicle/hired vehicles instead of waiting for an ambulance for transportation to avoid delay in treatment. Pediatricians are only available in tertiary hospitals. An average of 50 deliveries/month, 5 RDS babies born/month & 1 RDS death/month per hospital. 70% hospitals don't have a mechanism to monitor neonates. 83% hospitals don't have a CPAP machine.

Going Forward: Despite extensive research & work carried out for management of RDS-neonates worldwide, there still are significant gaps in accessing technology for RDS management in resource constraint settings in India. There is a need for a technology that maintains adequate respiration in neonates with RDS during transportation in such settings. Such a technology should take into account infrastructure requirement, skill level of health care workers and maintenance requirements in low resource environment. This will reduce the neonatal deaths that occur due to time spent without respiratory support during transportation in resource constrained settings.

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Abstract #: 1.071_NEP

The prevalence and correlates of hypertension among rural Ghanaian adults

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Background: Low- and middle-income countries carry nearly 80% of the burden of death from cardio vascular related diseases, with hypertension being one of the major pathogenic factors. Prior studies in rural Ghana among adults aged ≥ 35 found a surprisingly high prevalence of hypertension (50.9%). On the other hand, common risk factors such as high Body Mass Index (BMI), smoking, alcohol, and lack of physical activity historically have a low prevalence in this population. To better understand the disease burden of hypertension in rural Ghana, this study sought to estimate the point prevalence of hypertension in all adults and assess the association of classic risk factors in this population.

Methods: A cross-sectional survey was conducted on 845 adults aged ≥ 18 in the Barekese sub-district. Socio-demographic characteristics, modifiable and non-modifiable risk factors, blood pressure and anthropometric measurements were collected after informed consent during community-wide health screenings using standardized protocols. A multiple linear regression analysis (p -value < 0.05) was performed.

Findings: A total of 196 male and 649 female community members aged ≥ 18 with a median age of 42 (IQR 29–58) participated. The point-prevalence of isolated systolic hypertension/prehypertension and diastolic hypertension/prehypertension in the study population was 30.64%/39.19% and 21.61%/34.09%, respectively. Only 18.07% of the participants had a prior diagnosis of hypertension. A total of 85 (10.14%) participants were found to be obese ($BMI \geq 30$ kg/m²), and 224 (26.7%) were overweight ($25 \leq BMI < 30$ kg/m²). Risk factors such as age, family history of hypertension, and BMI were positively correlated with increased blood pressure among both sexes.

Interpretation: The burden of hypertension among adults in rural Ghana is high, and approximately one-third of all participating adults were found to be pre-hypertensive. A multiple regression analysis confirmed positive correlations between increased blood pressure and most risk factors. However the relatively low prevalence of overweight and obese participants in this population raises more questions than it does answers. This study did not address diet, which is a limitation. The findings indicate there is a great need for increased health education and routine screenings among this population in order to more effectively identify individuals at risk.

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Abstract #: 1.072_NEP

Shared clinical learning in a Mozambican clinic: results of a needs and opportunity assessment of Mozambican and US medical trainees collaborating in an outpatient clinic

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Background: A growing number of US medical trainees take part in international health experiences, predominantly in low- and

middle-income countries (LMIC). Educational research on these experiences has focused on the educational objectives and outcomes of US trainees; with relatively little emphasis on the goals and expectations of host institutions and trainees.

Methods: The University of Pittsburgh Medical Center (UPMC) and the Catholic University of Mozambique (UCM) have partnered to create a shared clinical learning experience, where US residents serve as preceptors for Mozambican medical students in an urban outpatient clinic. An educational needs assessment survey was distributed to fifth and sixth year medical students from UCM and visiting internal medicine residents from UPMC following a 2–8 week ambulatory rotation at the São Lucas Clinic in Beira, Mozambique. Survey questions focused on trainees' preferred learning styles, expectations regarding the experience, and prioritization of medical competencies. The survey was administered in written Portuguese and English in Spring 2015, following the rotation.

Findings: Surveys were completed by 19/20 Mozambican students (95%) and 5/5 (100%) US residents. Both groups preferred case-based teaching. Mozambican students preferred longer teaching sessions than US residents (60 vs 30 minutes). Both groups identified history taking, physical examination skills, and formulation of differential diagnosis as the most important competencies for the rotation. Mozambican students and US residents identified similar topics to learn from each other – selecting infectious diseases and dermatology as the top competencies that US residents could learn from Mozambican students, whereas management of non-communicable diseases, interpretation of electrocardiograms, ultrasounds and laboratory data were each selected as top competencies that Mozambican students could learn from US residents.

Interpretation: Mozambican medical students and US residents prefer similar learning styles and have parallel views on knowledge and skills they can learn from each other. Both groups prioritize clinical competencies not otherwise emphasized in their curriculum: local infectious diseases for US residents and chronic disease management and test interpretation for Mozambican students. These findings suggest that shared clinical learning experiences in LMIC countries have the potential to benefit hosting and visiting students if the learning needs of both groups are identified and prioritized.

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Quality of blood pressure control in hypertensive patients attending the Kigali University Teaching Hospital (CHUK)

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Background: Hypertension is a significant health problem in Rwanda. Most Rwandans have access to treatment, but medication adherence and health literacy have never been assessed. We investigated the features of treated hypertensive patients with uncontrolled blood pressure.