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Abstract #: 2.009_NCD

Factors Associated with Child Passenger Motorcycle Helmet Use in Cambodia

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Background: Cambodia has the highest motorcycle death rate in South East Asia. Helmets are effective at decreasing injuries and mortality, but their use in children has been found to be very low in Cambodia. To gain insight into how we might increase child-passenger helmet use and protect children from head injury and death, we sought to analyze several risk factors associated with child-passenger helmet use in five provinces in Cambodia.

Methods: Roadside observations in five Cambodian provinces were conducted periodically between July, 2010 and May, 2014. We used a multiple logistic regression model to calculate adjusted odds ratios for the association between child passenger helmet use and driver helmet use, number of passengers on a motorcycle, number of children on a motorcycle, province, day of the week, and time of day.

Findings: During the 4-year study period, 55,747 motorcycles were observed to have at least one child passenger. There were 65,819 child passengers in total. Due to missing data, 3780 children were excluded (5.7%) and the final analysis included 62,039 children. Overall, 1,369 (2.1%) of child passengers were observed to be wearing a helmet. Children were 6 times more likely to wear a helmet if the driver was wearing a helmet (OR 6.2; 95% CI 5.1–7.5). Compared to Phnom Penh, children observed in Kampong Speu (OR 0.51; 95% CI 0.39–0.68), Siem Reap (OR 0.70; 95% CI 0.59–0.83), and Kampong Cham (OR 0.33; 95% CI 0.26–0.44) all had lower odds of child passenger helmet use. Compared to Sunday, child passengers were also found to have significantly lower helmet use on Tuesday (OR 0.82; 95% CI 0.67–0.99), Friday (OR 0.79; 95% CI 0.64–0.98) and Saturday (OR 0.63; 95% CI 0.49–0.81).

Interpretation: Child passenger helmet use is extremely low in these five provinces of Cambodia. Increasing both driver and passenger helmet use should be a priority for Cambodia through newly implemented passenger helmet laws. Data from this study may be useful for targeted enforcement and public education campaigns, to increase helmet use and decrease injuries and death.

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Abstract #: 2.010_NCD

Understanding How Home Health Services Can Be a Resource for Somali Older Adults and Their Families

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Background: Home health care (HHC) refers to the delivery of health and personal care services in the home by paid health professionals and/or paraprofessionals. Somali older adults face a number

of challenges that impede their access to HHC services, but there is promising evidence indicating that HHC services can improve their health outcomes. Further exploration of Somali families' perceptions of these services can demonstrate what is needed to improve their access and experience with HHC. The purpose of the study was to explore and describe Somali older adults' and their families' perceptions of and experiences with the services offered by adult HHC.

This study used a community-engaged, qualitative descriptive approach with the participation of Refugees Helping Refugees (RHR), a non-for-profit organization in a northeastern US city. A total of 14 Somali families who had received HHC services for an older adult participated. Data collection included 15 home visits, 17 semi-structured interviews and 16 debriefing sessions. Data analysis began early and continued throughout the project using qualitative content analysis.

Findings: Somali families recognized HHC services were needed and believed having services in the home eliminated barriers and facilitated learning. Families' experiences and perceptions of HHC depended on whether they trusted the person coming to their home. Somali families value HHC but wanted it to be supportive of their traditional beliefs and family structure, and were particularly interested in better access to consumer-directed programs. Families believed better understanding of HHC services was needed, and HHC agencies should work with the Somali community to improve cultural understanding of HHC professionals and HHC experiences for Somali families.

Interpretation: Somali older adults and their families' descriptions of HHC suggest it can play a role in improving their health and their health literacy. Future research and health policy initiatives should explore how models of HHC can be used to impact the health literacy and health outcomes of these culturally and linguistically diverse populations, keep them safe and in the community, and how best to support HHC agencies to be able to provide this care.

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Abstract #: 2.011_NCD

Improving Indoor Air Quality in Rural Honduras, One Stove at a Time

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Background: Indoor air pollution (IAP) increases the risk for acute and chronic respiratory disease and is a major issue in developing countries where biomass fuels are commonly used. A 2012 survey by Le et al. in a region of rural Honduras served by VCU's Global Health & Health Disparities Program (GH2DP) revealed a high prevalence of respiratory illness linked to improperly installed cook stoves. Subsequently, improved cook stoves were installed throughout the region.

Methods: The aim of this study was to reassess perceptions of indoor air quality (IAQ), the presence of respiratory symptoms and the impact the stove intervention might have had. A voluntary, anonymous survey was conducted in June 2016 in two rural villages and results were compared to prior survey data. A total of 185 surveys were collected.

Findings: Respiratory symptoms were commonly reported; poverty status and stove replacement were significantly associated with the frequency of respiratory symptoms. When compared to 2012, household members being treated for respiratory problems decreased from 27% [21/79] to 14% [26/185]; there was also a 29% decrease in respondents noting that IAQ was a problem that affected their daily lives.

Interpretation: These findings will help inform further public health efforts in the region.

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Diabetes Awareness and Education Program

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Program/Project Purpose: DAEP, Diabetes Awareness and Education Program is a countrywide program initiated by Rwanda Pharmaceutical Students in 2015 with the aim of raising an awareness on diabetes; its causes, symptoms, treatments and prevention, highlighting the importance of starting the day with a healthy breakfast to help prevent the onset of type 2 diabetes and effectively manage all types of diabetes to avoid complications as suggested by the International Diabetes Federation (IDF) and also assess nutrition status and blood pressure measurement for participants to appraise risks factors and complications.

Structure/Method/Design: It consists of

- mass education and awareness programs for participants through higher learning institutions
- trainings for health care providers
- nutrition status assessment and blood pressure measurement to appraise diabetes risk factors and complications
- free diabetes screening
- teaching participants about prevention of diabetes and other NCDs and measures of controlling.

Outcome & Evaluation:

- Have assessed its impact by creating a research paper that has been published and presented.
- New cases of diabetes that have been discovered, have been referred to care facilities and registered in Rwanda Diabetes Association for free treatment.
- 1000 of people have been found with risks of getting the disease due to the overweight and hypertension factors and have been counseled and those new cases referred to healthcare facilities.
- All trained health care providers have brilliantly passed the post program evaluation.

- Due to the research paper new strategies have been adopted by the country. Such as monthly car free day.

Going Forward: Regarding the keenness and the willingness of people to gain more knowledge about NCDs especially Diabetes, and considering the impact of the first phases of the program, we are looking forward to expand the project; during next steps, we will be targeting villages in rural areas where people are more vulnerable. Actually the ministry of health embraced this issue and we have been granted new materials such as glucometers and blood pressure monitors to be used in future steps. Have been able to sign memorandum of understanding (MoU) with new partners such as Rwanda Health Foundation hence allowing us to sustain and expand the program and have joined the Rwanda NCDs Alliance.

Source of Funding: University of Rwanda Rwanda Diabetes Association.

Abstract #: 2.013_NCD

Disparities in Smoking Prevalence: A Missed Opportunity for Tobacco Control in Pakistan

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Background: Pakistan is one of the highest tobacco consuming countries in South Asia and consumption is increasing. For Pakistan to implement equity orientated tobacco control policies, the most vulnerable groups must be identified. We aimed to identify these groups using data from the Pakistan Demographic and Health Survey (PDHS) 2012-13.

Methods: The PDHS collected data from households in all four provinces of Pakistan and Gilgit Baltistan areas. The household questionnaire asked about smoking behaviour inside the home, the individual questionnaires inquired about participant tobacco use. Descriptive statistics, univariate and multivariate analyses were used to explore household characteristics associated with smoking inside the home, and participant characteristics associated with tobacco smoking. Survey weights were used to give nationally representative findings.

Findings: Data for 12,931 households, 3,132 men and 13,538 women were examined. 58.3% of surveyed households were smoke-free, 39.1% were exposed to indoor tobacco smoke every day, while 2.6% were exposed less frequently. More rural households were exposed to indoor tobacco smoke than urban households (45.2% vs 34.9%). This association was significant in univariate and multivariate analyses. 28.3% of men reported smoking compared with 1.3% of women. In both men and women, there was a higher prevalence of smoking in older age groups (18.9% and 0.4% aged 15-29 respectively, 34.2% and 2.3% aged 40-49 respectively). Increasing wealth was associated with lower prevalence of smoking and indoor smoking. For men, increasing education was associated with reduced tobacco smoking but this was not true for women.

Interpretation: People with lower income, rural households and less educated males are particularly vulnerable to the tobacco