

controls to have ever consumed alcohol (aOR, 1.64; 95% CI, 1.29–2.07). Both past drinking (aOR, 1.70; 95% CI, 1.24–2.35) or current drinking (aOR, 1.51; 95% CI, 1.10–2.07) were associated with breast cancer risk. A dose–response relationship was observed for years of drinking (P trend < 0.001), with each additional year contributing to a 2% increase in risk. Among women with family history of breast cancer (aOR, 2.81; 95% CI, 1.09–7.24), the relationship between alcohol drinking and breast cancer was stronger than that among women without the history (aOR, 1.55; 95% CI, 1.21–1.99).

Summary/Conclusion: We found a positive relationship between alcohol consumption and breast cancer risk among African women, although it was heterogeneous across three countries. Alcohol drinking may be becoming increasingly common among African women, and this modifiable risk factor should be addressed in breast cancer prevention programs in Africa.

The effect of geography and demography on outcomes of emergency department patients in rural Uganda

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Background: In Sub-Saharan Africa (SSA) geography represents a significant challenge to accessing health services. Patients' ability to negotiate these challenges is strongly influenced by many demographic factors including poverty, urban versus rural household location (urbanicity). Emergency care is a young and developing field in SSA, and geographic determinants of emergency patient outcomes in SSA are poorly understood. This study aims to quantify the effect of geographic determinants on the outcomes of patients with acute health conditions in SSA, controlling for demographics.

Structure/Method/Design: This is a retrospective cohort study of patients presenting to an emergency department (ED) of a rural Uganda district hospital. The ED care was managed by non-physician clinicians with specialized training in emergency care. Logistic regression modeling was utilized to determine if patients' distance to hospital is associated with mortality within 3 days of presenting to the ED, controlling for urbanicity, poverty prevalence, patient age, and pediatric malnutrition cases. Distance categories were <5 km, 5 to <10 km, and 10 km+. At the larger subcounty level, urbanicity was dichotomized into urban and poverty prevalence was categorized as low, moderate, and high. Age categories were <1 year, 1 to 4 years, 5 to 14 years, 15 to 49 years, and 50 years+. The 3-day mortality outcome was determined by follow-up in the hospital or by phone call to family or friends.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): 3767 Rukungiri residents treated in the ED from November 2010 to November 2011 were included, with an observed 3-day mortality of 2%. Distance to hospital was positively associated to 3-day mortality after controlling for poverty, urbanicity, age, and malnutrition. Compared to patients living <5 km from the hospital, patients living 5 to <10 km from the hospital had 1.7 times the odds of 3-day death (95% CI, 0.8-3.7; $P = 0.155$), and patients living 10 km+ from the hospital had 2.2 times the odds of 3-day death (95% CI, 1.0-5.0; $P = 0.048$). Urbanicity and poverty were significantly associated to 3-day mortality on univariate analysis, but not in multivariate analysis.

Summary/Conclusion: Distance to hospital is an independent risk factor for 3-day mortality of ED patients after controlling for demographic factors. This may have implications for future resource allocation toward emergency care development in Uganda and SSA.

Unintentional home poisoning among children in rural Ghana: A community survey of knowledge, attitudes, and practices

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Background: Unintentional poisonings are a common cause of emergency department visits. In 2004, an estimated 346,000 deaths occurred worldwide from unintentional poisonings, 91% of which occurred in developing countries. Due to lack of data collection mechanisms and resources, unintentional poisoning studies have not been conducted in most developing countries.

Recently, Ghana loosened regulations for the sale and distribution of pesticides and herbicides. Pediatricians in Kumasi, Ghana reported an increase in the number of admissions for unintentional childhood poisonings.

Structure/Method/Design: A cross-sectional, semi-structured questionnaire consisting of open- and close-ended questions was developed to assess knowledge, attitudes, and current practices regarding unintentional household childhood poisonings in rural, agrarian Ashanti, Ghana. Team members native to the region completed translation of the questionnaire, which was then pilot tested and modified based on feedback from trial field interviews. Five rural and semi-rural areas were sampled to encompass a range of population characteristics. Cooperation was high with 94% of households with children age 0 to 15 years participating ($N = 114$). We calculated descriptive characteristics using Stata 12.0. Open-ended questions were coded and analyzed in NVivo 9.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): Respondents were mostly primary caregivers (84%) and female (74%). Mean age for primary caregivers was 41 years. Half of the respondents (53%) had completed junior secondary school or higher. Nearly all respondents defined a poison as a substance that was harmful to health, and could list at least one poisonous substance, namely pesticides, kerosene, rat poison, and chlorine/bleach. The most common causes reported for poisonings were improper storage of poisons (42%) and ignorance of the child (54%). Interviewees cited proper storage as a means to prevent poisonings, yet poisonous substances were often stored in locations that were accessible to children. Less than 5% of respondents (4/114) indicated that teaching children about potentially poisonous substances would help reduce poisoning incidents. Furthermore, some respondents did not believe that medications could be poisonous.

Summary/Conclusion: Despite the worldwide burden of unintentional childhood poisonings, few in-depth analyses of unintentional poisonings have been conducted. While most participants in our study acknowledged that a poison was a harmful substance, and could identify at least one poison in their home, few knew that teaching their children about harmful substances could help reduce unintentional poisonings. School education programs and local health clinics may be an effective and sustainable avenue for an intervention to teach children about poisonous substances, and prepare caregivers to educate children about the danger of poisonous substances. We suggest including hair products

in subsequent studies as they were noted to be numerous in type and quantity within respondent's homes.

Understanding the social effects of water intervention implementation in the developing world: A qualitative study in Kitui, Kenya

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Background: Global public health interventions focus on providing solutions to unaddressed humanitarian issues in developing countries; priority projects include providing communities with access to water, food, health care, and more. Providing nearby access to safe drinking water is a primary public health concern and a frequent public health intervention. Intervention success may depend on additional factors to health outcomes. Previous research has focused solely on health effect outcomes and has not reviewed the impact of social effects from implemented water interventions.

Structure/Method/Design: A qualitative phenomenological approach used 55 semi-structured interviews to expose relationship experiences among primary water gatherers and their families after the implementation of water interventions in the community. This

study took place throughout the historically semi-arid eastern region in Kitui, Kenya, where community members have been beneficiaries of various water interventions.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): The Kenya Red Cross assisted in conducting this research study.

Summary/Conclusion: Prior to the water intervention, family members experienced difficulties with irregular meal times and food availability, infrequent family conversations, irritation with lack of bathing and cleanliness, and general discontent without the availability of one able-bodied family member. Community members' experiences after implemented water interventions reveal enhanced relationships within household family units; additional personal time was gained and used to rebuild relationships. The newly established relationships encouraged growth through family discussions and in conversations understanding and providing solutions to economic or individual challenges. This supplemental information provides a critical component to consider during the development phase of water interventions and may have a significant role in intervention acceptance; additionally, this research provides evidence of an increased need for access to quality water for communities throughout the world in order to positively contribute to constructive family relationships.