ideas that PWAs have supernatural powers that can be obtained by ingesting their body parts, and that having sexual intercourse with females with albinism can cure HIV/AIDS. Improving awareness of albinism is an integral step towards improving quality of life of PWAs in Tanzania. We developed a program to evaluate the use of community health workers (CHWs) to spread awareness of albinism and the challenges faced by this marginalized population in Tanzania.

Structure/Method/Design: We developed an educational program consisting of a video, PowerPoint presentation, and discussion topics and taught it to 33 CHWs trained by Empower Tanzania, an NGO with an infrastructure designed to disseminate public health practices in rural Tanzania. These CHWs delivered the presentation at schools and community gatherings in a rural district of Tanzania throughout February 2014. We administered questionnaires to program attendees before and after the presentation. We also gave questionnaires throughout the community before and after the month-long intervention. These questionnaires were used to assess baseline views about albinism, to evaluate the program's success, and to obtain additional feedback.

Outcomes & Evaluation: A total of 12,007 participants attended presentations. Questionnaires randomly administered to 426 participants demonstrated significantly higher knowledge about albinism after the presentations than before, and indicated that participants intended to share what they had learned with friends and family members. Community questionnaires administered to 896 randomly-selected community members in January and 743 additional community members in March suggested retained, community-wide gains in knowledge about albinism and the unique challenges faced by PWAs. Data analysis revealed the knowledge gains varied based on selected demographic characteristics. We conclude the program to be an effective means to improve awareness of and knowledge about albinism. We hope these knowledge gains can reduce the associated discrimination and stigma towards PWAs in Tanzania.

Going Forward: The UN has identified improving knowledge at a community level as a priority in addressing violence towards Tanzanians with albinism. Public health interventions utilizing CHWs are an effective tool to improve health outcomes in rural populations. Our program demonstrates a promising approach to alleviate the challenges faced by a marginalized population and supports the utility of CHW programs to enact cultural change. This program will continue to be used by Empower Tanzania to maintain the observed gains in knowledge. Potential applications of our findings include dissemination of this program to other areas of Tanzania and utilization of this CHW-based approach to develop interventions addressing other social determinants of health in developing countries.

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Assessing the efficiency of HIV prevention interventions in Kenya – the ORPHEA Project

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Program/Project Purpose: Despite limited resources for HIV prevention interventions, few empirical studies investigate the efficiency of HIV prevention interventions. Reliable data on costs and efficiency is critical to best inform the choice of service delivery model, budget allocation and financial decisions. Optimizing the Response of Prevention: HIV Efficiency in Africa (ORPHEA Project) assessed determinants of efficiency for three interventions in Kenya in 2012-2013: HIV testing and counseling (HTC), prevention of mother-to-child transmission of HIV (PMTCT), and voluntary medical male circumcision (VMMC).

Structure/Method/Design: Input data were collected retrospectively from a nationally representative sample of government and non-governmental health facilities for calendar year 2011 or 2012 and for the month prior to data collection. Multi-stage sampling was used to determine the sample of health facilities by type, ownership, size, and interventions offered totaling 175 sites in 78 health facilities in 33 districts across the country. Data sources included registers and time-motion methods. Process quality estimating provider competence and performance was assessed using cross-sectional provider 283 vignettes and 489 client exit interviews with randomly respondents. Total costs of production were computed using both the quantity and the unit price of each input. Average cost was estimated by dividing total cost per intervention by the number of HIV clients accessing that intervention.

Outcomes & Evaluation: Facilities differed by type (hospitals, 48%; health centers, 34%; dispensaries, 13%; medical clinics, 5%), ownership (government, 72%, non-governmental, 10%; private, 18%), size (personnel and patient clients) and number and cost of services. Most facilities (88%) offered more than one intervention. Average annual costs for HTC, PMTCT and VMMC samples were, respectively, US$36,617 (s.d.-$72,145), $36,617 (s.d.-$72,145) and $26,232 (s.d.-$24,616). The average cost per client tested were, respectively, $20.6 (s.d. $38.4; weighted, $21.2), $63.5 (s.d. $77.2; weighted, $55.0) and $80.4 (s.d. $118.0; weighted, $102.2). Across all interventions staff costs accounted for between 75% and 82% of total costs. Variation in average cost for HTC and PMTCT was evident for only private facilities while it is cheaper to perform VMMC at primary health centers. Scale and quality together explain approximately 30% of the variability in average costs.

Going Forward: It is possible to employ a complex package of methods to assess technical efficiency of HIV prevention interventions in low-income countries, but attaining perfect designs is challenging. Much cost variation is evident across the Kenyan HIV services system. Economies of scale are seen with increasing volume especially at lower level facilities. Analysis of provider competence and performance suggest that higher levels of quality are not associated with higher costs. There is large potential to increase efficiency within the current constraints particularly in altering staff costs and composition.

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Health in the age of globalization: Combining theory, practice and social justice in global health teaching

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Program/Project Purpose: The Global Health program at Ben Gurion University (BGU) provides students with a comprehensive learning experience that combines theory and practical work that actually demonstrate aspects of global health and social justice. An intense, one-month, summer program was first launched last summer based on a platform of a previous full semester course. The program aims to introduce students with key concepts and theories of public health ethics, globalization and their interactions.
Structure/Method/Design: Located in the Negev desert, BGU is involved in the development of Israel's southern periphery, and its health faculty is engaged in researching the impact of geopolitics on access to health services and social determinants of health. Israel holds a unique position on the perspective of global health: It stands at the forefront of both bioscience and social medicine, maintaining a developed medical infrastructure that provides relatively generous healthcare coverage to its citizens. Nevertheless, Israel's unique demographic and social composition introduces challenges of health disparities and social justice. These characteristics present a "living" laboratory opportunity for the study of health challenges in globalized societies. The way we found most efficient to fulfil the course aims, was the integration of a practicum into the more traditional theoretical part, where students can work with NGOs that have strong relation to questions of social justice.
Outcomes & Evaluation: Following this principle teaching methods integrate frontal teaching, field trips and a practicum: In the first part student delve into the study of global health from the perspectives of public health as well as from the viewpoint of globalization theories; in the second part of the program specific topics and case studies of global health are tackled. Different ways in which global processes impact the distribution of health resources, pose new bioethical quandaries and alters our understanding of health are discussed. Integrated into those discussions are considerations of ethical, social, political and historical concerns related to global health. Field trips to diverse sites are also conducted for direct exposure to those topics, among them are immigration, Eco-health and health diplomacy. In the final part of the program, students are placed in a one-week practicum to have on-the-ground experience in issues facing the global health workforce. Evaluation by an external reviewer from BGU sociology of health department has been carried to capture changes in knowledge and strength and weaknesses of the program.
Going Forward: This year graduate students from Israel, U.S., India and China participated with a variety of backgrounds: MDs, public health graduates-students, social workers and psychologists went through the program. In the coming years we aim to broaden the scope in terms of having more disciplines and countries involved.
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Knowledge, attitudes and barriers of infection control among healthcare workers in rural Uganda

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Background: Infection control (IC) practices in resource-limited hospital settings are often inconsistent and incompliant with international standards set out by the World Health Organization (WHO). The prevalence of hospital acquired infections (HAI) is therefore disproportionately higher in resource-limited nations compared to resource-rich nations. Healthcare workers' (HCW) IC practices have already been studied at larger, urban hospitals (with 400-1500 beds) in Asia and Africa; however, it was found that a good knowledge of IC doesn't correlate with improved IC behavior, and other factors contribute to those HCWs' poor hand hygiene (HH) rates. This study addresses the gaps in understanding about infection control in rural, under-resourced African hospitals. The aims of this study are to identify factors that predict appropriate use of IC measures amongst HCWs in rural hospital settings (specifically knowledge and attitudes toward IC), as well as barriers to IC that could be targeted for future HH interventions.
Methods: Structured interviews with 117 healthcare workers (88 employees and 29 clinical students) were conducted at a 160-bed governmental hospital and a 210-bed private hospital in Kisoro, Uganda using a verbally-administered, IRB-approved survey instrument. The primary outcome of IC behavior was calculated with a composite score, where Likert-scale answers were summed together to produce a behavior score for "HH practice" and "glove use." Composite scores for HH knowledge were calculated, breaking down into "Knowledge of WHO's Five Moments for HH," "General Knowledge of HH" and "Knowledge of glove use." Knowledge scores, attitudes, and barriers to IC were compared to self-reported HH behavior.
Findings: When self-reporting behavior, 80.2% of HCWs reported that they "always" or "frequently" washed their hands between patients, yet running water availability was hospital-dependent. 75% of HCWs reported hand sanitizer (HS) was occasionally, rarely or never available. Only 44% of HCWs interviewed have ever had personal access to HS in the past, and, among those HCWs, 78.5% reported always or frequently using it between every patient. Knowledge about the WHO's "5 Moments for HH" and glove use were correlated with higher composite behavior scores in HH and glove use ($p < 0.05$). Greater perceived importance about HH exhibited by administrators and coworkers was correlated with higher HH behavior scores ($p < 0.01$). Perceived lack of time to adequately perform HH was inversely associated with HH behavior ($p < 0.05$).
Interpretation: In this evaluation, HH behavior and the factors influencing HCW behavior differ significantly from larger, urban hospitals in developing nations. Greater HCW knowledge about HH correlated with better IC practices in these two rural hospitals; however, lack of access to HS/water and time constraints contributed to overall lower rates of HH. These specific factors and unique working environments should be considered when developing hand washing intervention programs in rural, under-resourced African hospitals.
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Development of an interprofessional international experience course for healthprofession students

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Program/Project Purpose: This program is an annual fall/winter college-level course that includes service learning in Nicaragua for the Schools of Occupational Therapy, Physical Therapy, Dental Health Sciences, Pharmacy, Physician Assistant Studies, Audiology, Professional Psychology, and Healthcare Administration. The program begins with a 2-credit course focused on preparation for the in-country experience and ends with a 2-credit course that includes 10 days in