

best-practices, and educational pedagogies. Global Service-Learning has been suggested as one of the most effective ways to facilitate the development of intercultural competence (Deardorff 2011; Kuh 2008; Merrill et al. 2012), and “global citizenship” (Abdi and Shultz 2008; Battistoni et al. 2009; Braskamp 2011; Institute of International Education 2014). Intercultural Competence is defined as the ability to communicate effectively and appropriately with people of other cultures (Messner). Global Citizenship is a concept common to service-learning circles, as well as in recent inter-professional global health competencies (Appiah, 2006, Falk 2000, Nussbaum 1997, Joegst 2015). Based in evidence-based and expert consensus, the tools and resources that stem from international education will be presented.

**Outcome & Evaluation:** The outcomes of global health education adopting best practices and engagement with international education colleagues include improved collaboration, increased safety and rigor of global health experiential learning, and improved evaluation of student impacts. Assessment tools including the Intercultural Development Inventory, Global Engagement Survey, and Global Perspectives Survey will be detailed.

**Going Forward:** Going forward, increased synergy between international education and global health education at both a campus and national/international level, will benefit both schools of thought and communities of practice. This session creates an underpinning for CUGH and its members to interface with international education.

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### **Economic Spillovers from Public Medical Countermeasure Investments: A Case Study of NexoBrid®**

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**Background:** The US Department of Health and Human Services’ Biomedical Advanced Research and Development Authority (BARDA) awarded a \$24 million contract to MediWound Ltd. for the development of NexoBrid® to enhance US preparedness for an improvised nuclear device incident. NexoBrid® is a burn debridement product reducing the need for surgical excision of dead tissue.

**Methods:** We develop a standard diffusion model to project the potential economic spillover effects of a burn debridement product by examining four primary components: 1) market size, 2) effectiveness (debridement and grafting), 3) cost, and 4) market adoption. We use data from two primary sources to project potential spillover benefits based on our model: 1) the American Burn Association’s 2015 National Burn Repository Annual Report of Data, and published clinical outcomes that have been used to gain European approval for the burn treatment.

**Findings:** Peer-reviewed clinical results suggest that the approval of NexoBrid® for burn debridement in the United States would improve burn patient outcomes and reduce hospital length of stay

(LOS) and grafting in the day-to-day health care system. If approved in the US, the burn debridement product would be available for use in routine burn care beyond its primary mission. BARDA’s investment has potential economic spillover benefits that exceed BARDA’s initial investment of \$24 million a few years after its entrance into the US market.

**Interpretation:** Because multi-functionality of a medical countermeasure is a key consideration of the Public Health Emergency Medical Countermeasures Enterprise (PHEMCE) when making resource decisions, the results of this analysis can help to inform prioritization of scarce resources for development by the PHEMCE. Future Federal investment decisions could incorporate consideration of potential economic spillover benefits when a product could be used routinely in the commercial market.

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### **Arsenic in Drinking Water: Policy Implications in Mexico**

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**Program/Project Purpose:** Global concern around arsenic in drinking water and its linkage to disease make translation of evidence-based research into national policy a priority. The Mexican standard for arsenic concentration in drinking water is 25 µg/L, which remains “two-and-a-half” times higher than that of the World Health Organization (WHO) recommendation. Arsenic is a naturally occurring element widely distributed in the earth’s crust that contaminates drinking water. Arsenic in drinking water has come to be synonymous as carcinogenic to humans and a risk factor for other chronic and acute illness. The purpose of this research is to raise awareness to the implications that arsenic contamination in drinking water has on Mexico and to suggest action steps for environmental policy reform.

**Structure/Method/Design:** Arsenic concentrations in ground-water have been documented since the 1950’s in Mexico. Yet, it wasn’t until 1994 that Mexico’s first standard was formed. The research will summarize Mexico’s national policy history regarding arsenic in drinking water while qualitatively analyzing how scientific research and international guidelines have influenced the policy. The goal is to provide a position on arsenic policy in Mexico.

**Outcome & Evaluation:** The research considers four factors that play major roles for environmental policy change in Mexico: scientific evidence, political agenda, economical situation, and resource capacity. Each component is explored to determine its significance for policy advancement and to provide a current position in Mexico.

**Going Forward:** Mexico has had a history of fragmented and overlapping domestic institutions that have yielded ineffective and inadequate environmental policy. The delay to lower the current standard has undoubtedly led to the loss of countless lives and burden of disease. The guideline value of 10 µg/L set by the WHO might incur practical difficulties and deciding on a new