



BUILDING BRIDGES TO THE WORLD

THE CONVERGENCE OF GLOBAL HEALTH, DIGITAL MEDIA, AND TECHNOLOGY

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Never before have global health issues been more critical to American society. Pandemics and natural and man-made disasters with resultant displaced populations are accompanied by unique health challenges. As the recent H1N1 influenza pandemic and the devastating earthquake in Haiti illustrate, the impact of such health crises transcend national borders and keep global health challenges at the forefront of people's minds. The definitive solution to mitigating the health effects of such disasters resides in developing strong and collaborative health systems. The challenge of health systems strengthening is exacerbated by the current shortage of trained global healthcare workers. This shortage was estimated by the World Health Organization (WHO) to exceed 4.3 million trained healthcare workers.

Whether a careprovider is treating patients with wounds from an ongoing conflict, providing an expectant mother the opportunity to deliver her baby safely, or helping a child following a natural disaster, these actions change peoples lives for the better. There is perhaps no more effective way of instilling trust, hope, and faith than through providing assistance to those in need. Creating healthy communities is a fundamental component of international development efforts and an important step toward achieving stability within fragile states. Improving health outcomes through addressing the global shortage of four million healthcare workers is one of the most powerful health diplomacy tools a country has to offer.

A global crisis

The ongoing shortage of healthcare workers leaves over one billion people worldwide with little or no access to health services. The largest deficit of healthcare workers is found in economically disadvantaged countries, where millions are dying or becoming disabled each year due to lack of proper medical care. According to the WHO, a major factor contributing to the global healthcare workforce crisis is the inadequate number of healthcare workers that have been properly educated, trained, and subsequently employed. This continuing health challenge limits the ability for foreign assistance programs to achieve lasting results.

Improving healthcare worker education and training will directly benefit health systems and patient outcomes. Analyses in developing countries show positive correlations between numbers of trained healthcare providers and infant, child, and maternal survival ratios. The quality of trained doctors and the density of their distribution have also shown positive outcome correlation in cardiovascular diseases. Increasing the numbers of trained

healthcare workers, as well as updating the skills of existing workers, will improve quality of care and improve patient survival. A healthy family will become a productive family. A healthy and productive workforce fuels the economic growth and development of nations.

Using digital media and technology to improve health

Amid an urgent need to rapidly train hundreds of thousands of healthcare workers around the world, new and effective training solutions are needed. With increased globalization comes an opportunity to instantly connect with low-resource nations through technologies that can directly assist in improving health outcomes. America's expertise in the fields of health, digital media, and telecommunication technology provides a powerful resource in the fight to improve global health.

Computer-based training programs provide an opportunity to increase local capacity via large-scale, effective training solutions. More cost-effective than reprinting textbooks or solely relying upon sending volunteer health educators, DVD or Internet-based training solutions can allow for the rapid dissemination of engaging, high-quality education programs around the globe. Providing access to new and continuing education and training allows healthcare workers to benefit from advances in clinical practices irrespective of their location. By integrating expertise from computer scientists and lessons learned by cognitive psychology learning experts, computer-based training programs can now be developed to adapt to the learner. Such programs allow further individualization of training curriculum to match a user's proficiency, which will translate into better learning and training.



Health messaging via mobile phones and other handheld devices and the Internet can help rapidly disseminate health information. Numerous public health messaging and disease prevention applications are possible. These technologies can also be used as a resource during disaster response to help coordinate logistics and alert healthcare providers where patients might need the most assistance. As mobile phone technology continues to develop, so does the opportunity to leverage phones as reliable teaching tools. Short-form video-based procedural instruction can allow a healthcare worker to access critical medical information at their leisure or during emergencies. In addition, online social networking and “Games for Health” programs provide an opportunity for the public and healthcare workers to access health information and best practices in an interactive and engaging format.

Telemedicine provides an opportunity to rapidly and directly connect leading American medical institutions and health experts with communities in need. Telecommunication technology now allows clinics and careproviders around the world to virtually connect, face-to-face, via voice and video. This form of instant connectivity provides yet another untapped source of support and ongoing education.

Better diplomacy through better health

The convergence of global health, digital media, and technology will transform future health development and outreach efforts. Integrating these elements to forge international cross-cultural ties will enable successful responses to the many natural and man-made challenges facing the world. America is well positioned to lead this

effort. It possesses the innovative capacity, health and technology expertise, and social and political freedoms required to achieve large-scale success. America's universities and institutions of higher education are unique assets that foster outreach, intercultural exchange, interdisciplinary research, and translation of knowledge and technology into public good.

At present, very few funding opportunities exist to support interdisciplinary programs that encourage the integration of global health, digital media, and technology. Moving forward, the creation of public-private partnerships between government agencies, non-governmental organizations, universities, and private sector businesses are necessary to ensure successful and sustainable solutions. A large-scale initiative is required to help bring together thought-leaders across many sectors to explore collaborations and develop action proposals around the convergence of health, digital media, technology, and public diplomacy. This initiative would seek to improve global health and outreach through education, training, and technology. The intersection of these sectors provides new tools in the fight to improve global health and create public diplomacy bridges. "Better Diplomacy through Better Health" will be an important and beneficial consequence of long-term, effective, and sustained efforts to address the global shortage of trained healthcare workers.

UCLA Center for International Medicine (CIM)

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Recent programs include:

Clinical Care for Sexual Assault Survivors

Partner: International Rescue Committee

Language(s): English and French

Target Audience: Clinical care providers in under-resourced settings

Landmine and Explosive Remnants of War Safety Training

Partner: United Nations Mine Action Service

Language(s): English

Target Audience: International organization personnel, aid workers, press and other professionals working in areas affected by landmines and explosive remnants of war

Introduction to Injury Care & Fundamentals of Trauma

Partner: Project HOPE

Language(s): English and Mandarin

Target Audience: Chinese and Egyptian emergency medical care providers

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