University in St. Louis, School of Social Work, Saint Louis, MO/US, <sup>3</sup>New York University School of Medicine, Department of Psychiatry, New York, NY/US

Background: The 2010 global burden of disease study indicated that mental and behavioral disorders account for approximately 9.5% of all disability-adjusted life years and 23.6% of all years lived with disability in China. With rapid socioeconomic transformation, the Chinese mental health system is in great need of service expansion with delivery models capable of operationalizing treatment packages into local practices. For Chinese cities facing many unique challenges today, it is critical to understand in detail both the local practices of mental health delivery, and the local ideas about mental illness and major services barriers such as stigma.

Structure/Method/Design: Methods of analysis included literature review, policy and service structure analysis, participant observation, and individual as well as focus group interviews with stakeholders from various arenas of the mental health delivery system in Shanghai, China. The methods were formulated within a transdisciplinary framework involving the fields of psychiatry, public health, clinical social work, and medical anthropology in order to gain a comprehensive insight into the Chinese mental health system.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): A solution narrative of transdisciplinary strategies was generated based on available local resources and strategies acquired from previous field practices. We delineated in detail the service structure, care pathway, and essential skill packages of the mental health delivery system in Shanghai, and the scale of challenges it is facing. The findings generally supported the current Chinese strategy for community mental health service expansion and highlighted multiple barriers to expansion, such as restricted diagnostic privileges, lack of mental health social workers, and stigma experienced in the Chinese culture.

Summary/Conclusion: We concluded that in spite of differences in local context, the experience of Partners in Health in implementing mental health services in low- and middle-income countries would contribute significantly to China's service scale-up efforts. Some initial recommendations include equip community health service centers for the initial diagnosis of common mental disorders; improve task-sharing training for mental health social workers; identify and implement intervention strategies to destignatize mental illness; and improve community prevention and education programs focused on generating behavioral change. The newly implemented Chinese mental health legislation provides an excellent opportunity for mental health service expansion; however, some aspects of the law should be considered for revision in order to maximize service capacity. Further needs assessment and policy analysis are needed to assess the impact of large-scale internal migration and rapid population aging.

## Trauma registries in low- and middle-income countries: Working with what we already have

M.R. Kesinger<sup>1</sup>, L. Nagy<sup>2</sup>, A.M. Rubiano<sup>3</sup>, J.C. Puyana<sup>1</sup>, E.W. Etchill<sup>4</sup>; 
<sup>1</sup>University of Pittsburgh Medical Center, Surgery, Pittsburgh, PA/US, 
<sup>2</sup>University of Pittsburgh, DeKalb, IL/US, 
<sup>3</sup>Universidad Surcolombiana, La Plata, HUILA/CO, 
<sup>4</sup>University of Pittsburgh School of Medicine, Department of Surgery, Pittsburgh, PA/US

**Background:** Trauma registries (TRs) are a fundamental tool of mature trauma systems. They are used in developed countries to measure the effectiveness of trauma quality improvement (TQI). Lowand middle-income countries (LMIC) have not developed TRs on a large scale. Financial barriers and a lack of digital and human

infrastructure are obstacles to creating TRs in LMICs. Some LMIC hospitals have created financial databases to record pay-for-service information. Innovative methods to adapt financial databases into TRs could advance TQIs in LMICs. We report how we adapted a financial database to measure the effectiveness of a TQI.

Structure/Method/Design: A TQI standardizing generally accepted interventions in initial resuscitation of patients at a trauma center in Neiva, Colombia was implemented in September 2011. To measure the effectiveness, we wished to investigate the incidence of standardized interventions in the emergency department (ED) before and after TQI implementation. We used restructuring techniques to create a database that permitted analysis from an administrative hospital database that was used for billing purposes. The database spanned September 2010 to September 2012. To confirm accuracy, a chart review was conducted for a subset of patients by two independent researchers.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): The restructured database allowed for analysis of mortality, many ED interventions and length of hospital stay 1 year before intervention and 1 year after. Chart review confirmed database fidelity. The analysis demonstrated the general success of the TQI by increased interventions, decreased length of stay, and a dramatic decrease in mortality for severely injured patients. It also demonstrated some interventions that did not increase, showing where future TQI efforts should be directed at the institution. A second TQI is currently underway, based on the results of this work.

Summary/Conclusion: Adapting financial databases into trauma registries is a potentially cheap and effective way to measure trauma quality improvement effectiveness in LMIC hospitals. This method, in turn, could be used as a catalyst to new quality improvement initiatives in LMIC hospitals.

## Factors influencing the external validity of the evidence of HIV counseling and testing data in global health settings

E. Marseilli<sup>1</sup>, A. Mirzazadeh<sup>2</sup>, M. Malekinejad<sup>3</sup>, J. Kahn<sup>2</sup>, A.J. Goodell<sup>4</sup>; <sup>1</sup>Health Strategies International, Oakland, CA/US, <sup>2</sup>University of California, San Francisco, Institute for Health Policy Studies, San Francisco, CA/US, <sup>3</sup>University of California, San Francisco, Epidemiology and Biostatistics, San Francisco, CA/US, <sup>4</sup>Global Health Sciences, Berkeley, CA/US

Background: Reliable assessments of external validity (EV) are needed in global health decision-making, to ensure that interventions are implemented in settings where favorable benefits observed in evaluation studies can be replicated. To date, there are no standards for how EV is defined or assessed. Ours is the first systematic approach to develop a quantitative tool for assessing EV in global health settings, applied initially to HIV testing and counseling (HTC).

Structure/Method/Design: We conducted a literature search and structured discussions within our team to develop a list of EV indicators (i.e., study characteristics that might determine EV). We grouped indicators into thematic categories. We refined and amended the list through a two-round Delphi process with 28 HTC experts identified as authors of HTC studies. We sent a structured survey to these experts to elicit the weights for each indicator and to propose additional indicators. We sent the first round results back to the experts for re-weighting. We extracted data for EV indicators from 46 HTC studies identified via standard systematic review methods.

Annals of Global Health 189

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): We initially identified 33 EV indictors grouped in six categories: 1) geographic setting (eight, e.g., urban vs. rural); 2) study population (seven, e.g., gender); 3) implementation characteristics (six, e.g., adherence efforts); 4) institutional and legal context (three e.g., stigma); 5) ability to scale with quality (two e.g., implementation scale); and 6) HTC-specific indicator (seven, e.g., service delivery mode). After the first round of expert elicitation, we added one indicator and dropped one. Four (12%) indicators were excluded due to lack of variability (>90% studies reported the same characteristics) and four (12%) due to excessive (>70%) missing data, cumulatively comprising 27% of total weights. Seventeen of 25 (68%) remaining indicators comprised the top 80% of the total renormalized weights. The bottom five least weighted indicators were: 1) WHO region 0.4 %; 2) WHO subregion 0.8%; 3) country 0.8%; 4) national per capita government health spending 1.5%; and 5) country-level income 1.7%, and the top most weighted indicators: 1) target age group 6.4%; 2) service delivery mode 5.7%; 3) type of post-test counseling 5.5%; 4) stigma for intervention 5.5%; and 5) HIV epidemic type 5.4%.

Summary/Conclusion: More attention should be given to EV for translation of evidence to real-world global health practice. Our study proposes a target-specific definition for EV: The likelihood that intervention effects observed in a set of studies will be replicated if implemented in a different target setting. Intervetion-specific indicators should be carefully explored for other EV tools. Validation of our tool is underway.

## Developing a new medical school at a new university in Kazakhstan

M. McDonald<sup>1</sup>, S.L. Kanter<sup>1</sup>, M. Pignatelli<sup>2</sup>, N. Khamzina<sup>2</sup>, J.F. Mahoney<sup>1</sup>, J. Woodward<sup>1</sup>; <sup>1</sup>University of Pittsburgh, Pittsburgh, PA/US, <sup>2</sup>Nazarbayev University, Astana/KZ

Background: Nazarbayev University (NU) was dedicated in June 2010 by Kazakhstan President Nursultan Nazarbayev, with the mission of making the republic's 15-year-old capital, Astana, Eurasia's leading research and educational center. Each NU academic unit is paired with an international partner; instruction is in English. The University of Pittsburgh School of Medicine (UPSOM) was selected as NU's partner to develop the NU School of Medicine (NUSOM) based on a U.S. model. Combined with the six hospitals of National Medical Holding (NMH), also part of NU, and NU's Center for Life Sciences, NU plans to create Kazakhstan's first integrated academic health system.

Structure/Method/Design: Under an initial 6-month contract, UPSOM developed an implementation roadmap for NUSOM's 2015 opening and preliminarily assessed NMH hospitals' readiness to become clinical teaching sites. Under a second 1-year contract, NU and UPSOM are assessing existing NU faculty, facilities, and other resources and capabilities; developing a detailed NUSOM curriculum plan; identifying and training core faculty; and collaborating in the design of the NUSOM building.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): To date, the partners have developed and applied an evaluation rubric to select NUSOM core faculty; created a comprehensive framework to assess the readiness of clinical sites and their physicians to participate in U.S.-style medical education; and hired a NUSOM dean, who began in November 2013. The partners have also determined NUSOM's preliminary curriculum plan, interviewed 20 potential faculty candidates (most current NU and

NMH employees), and identified those with the knowledge and skills to teach some component of the NUSOM curriculum, with support and training from an UPSOM mentor. Other faculty are being recruited through an international search process.

Summary/Conclusion: Kazakhstan is committed at the very highest levels (the president himself) to NUSOM's success and is willing to provide the resources to assure it. Kazakhstan is politically and economically stable and has very high literacy rates. However, the republic lags comparable countries in health care quality and rates poorly in assessments of transparency and corruption. Moreover, the timeline for opening NUSOM is extremely aggressive; and a limited number of Kazakh physicians speak English, making it challenging to find clinical teaching faculty. Kazakh administrative procedures are extensive and cumbersome.

The partners are confronting these challenges by identifying and addressing them systematically in a transparent, step-wise fashion, even at the level of Kazakh law when necessary. In doing so, a major outcome has been the cohesion of the core team at both institutions into a unified body but with the NU members clearly taking "ownership" of the process, with the UPSOM partners acting in a supportive and advisory capacity.

## A child survival toolkit for donors—Bringing best practice evidence to philanthropic donors in global child health

C.A. McLaughlin<sup>1</sup>, K. Peck<sup>2</sup>; <sup>1</sup>University of Pennsylvania, Center for High Impact Philanthropy, School of Social Policy and Practice, Philadelphia, PA/US, <sup>2</sup>University of Pennsylvania, School of Arts and Sciences, Philadelphia, PA/US

Background: Current resources devoted to global health are far below what is needed to reach global targets. Individual donors have the potential to play a critical role. About three quarters of the approximately \$300 billion given to U.S. nonprofit organizations in 2012 came from individual donors. Despite their financial influence, individual donors often lack access to information on the evidence-based models and organizational approaches that produce the most positive outcomes.

The Center for High Impact Philanthropy's Child Health Donor Toolkit showcases community-based initiatives that have demonstrated to be high-impact methods for improving the health of children.

Structure/Method/Design: With a diverse group of partners, the Center for High Impact Philanthropy launched a child survival tool kit designed to disseminate actionable guidance about best practices, evidence-based models, and other resources for individual donors and their advisors. In developing the guidance, we synthesized existing knowledge from rigorous research, informed opinion, and field experience and translated it into a form accessible and actionable for lay individual donors and their advisors.

The child survival tool-kit focuses on three strategies for high-impact philanthropy: treating and preventing now, building long-term systems and policy change, and innovations in technology and health delivery. Using a series of in-depth case studies, the initiative helps inform donor decision-making with best available information. Each case in the series includes an analysis of the situation, evidence-based models, strategic opportunities for donors, and action steps.

The series has covered approaches central to infant and child health: home-based newborn care, nutrition focused mothers' groups (care groups), childhood vaccination, addressing the burden of malaria, and community-based health and development programs.