

Structure/Method/Design: This was a qualitative study of 100 patient care attendants in the Medicine Department at Mulago National Referral Hospital. Participants were recruited via simple random sampling in August 2014. Only one attendant per patient was included. Data was collected using an interviewer-administered questionnaire. Results were analyzed qualitatively to identify recurring themes. Written informed consent was sought from every participant and IRB approvals were obtained.

Outcomes & Evaluation: Most of the participants were female, married, farmers and of youthful age. The services they provided focused on self-care deficits such as feeding, cleaning, and administering of drugs. Furthermore, most participants reported the attendants to be an imperative and suitable method to respond to patient needs. While serving as an attendant, each participant spends at least 120,000 Ugandan Shillings on transport, food and communication. Patients' relatives generally provided funding. Almost all participants slept on the floor when serving as attendants and consumed food served by the hospital to the patients. The greatest challenges mentioned included the poor bedding and sanitation of the hospital. Most attendants were their family's primary home caretaker and breadwinner, leaving the needs of family back home neglected.

Going Forward: Interpretation: The need for a patient care attendant imposes a financial strain on patient families by providing an additional cost and often disposing a primary income earner. Limitations: There is no standardized instrument available to assess the lives of patient care attendants. However, existing literature and the study objectives were used to design a data collection instrument that was comprehensive and detailed. Strength: The study findings are a true representation of the participants' views since data collection was exhaustively done until no new themes were generated.

Funding: Western Connecticut Health Network, Danbury, Connecticut, USA.

Abstract #: 02GMHE0010

Can poverty reduction investments translate into more healthcare workers?

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Background: New targets for global development emphasize poverty reduction with some perceiving these priorities as de-emphasizing healthcare investments even though health and poverty are inextricably linked. This study sought to examine the relationships between key country development indicators and physician and nurse-to-population ratios in order to explore the potential impact poverty reduction investments could have on human resources for health production.

Methods: Publicly available data from international databases that collect human resources for health, political system, economic, and population demographic data comprised the data for the 184 countries included in this cross-national comparative observational study. Selected variables have known influences on healthcare systems indicators. Data were from the most recent year available. Relationships between key variables were examined using descriptive and multiple regression techniques. Missing data were imputed using the ICE technique in STATA. Analyses were also replicated in R for added rigor. IRB approval for this study was obtained through New York University.

Findings: Average education levels of the population were strongly and significantly correlated with the nurse/midwife ($r = .60$, $p=0.000$) and physician ($r = .72$, $p=0.000$) to population ratios. In regression models, average years of school in a country's population, emigration rates, beds per 1,000 population, and low income country statuses were consistently statistically significant predictor variables. Regression models found that the combination of variables explained 63% of the nurse/midwife-to-population ratio (pseudo $R^2=.627$, $p = .0000$) and 73% of the physician-to-population ratio (pseudo $R^2 = .729$, $p = .0000$).

Interpretation: Poverty reduction priorities in the next decade appear to have the potential to indirectly facilitate the production of human resources for health. The education variable in the model and its consistent significance is the best illustrator of the potential long term effects of these investments. While the study was limited by the overall quality and availability of data, the stability of the model across various analytic strategies strengthens the rigor of the results. Thus, while poverty reduction initiatives may help future generations and long term economic development, policies and investments also need to strengthen present day production systems that support the operations of health systems vital to combating health conditions related to poverty.

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Abstract #: 02GMHE011

Universal healthcare access and equity in Brunei Darussalam

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Background: Universal healthcare is being promoted internationally as a way to reduce healthcare disparities, however, little research has been conducted to determine the extent to which universal healthcare achieves that aim. The Brunei Darussalam Health System Survey (HSS) was conducted in 2013 in four districts of Brunei Darussalam. The survey was a nationally representative household survey to gather data on the population's perceptions and expectations related to the nation's universal healthcare system. The purpose of this research was to determine how healthcare access and equity in Brunei differ by individual respondent and household characteristics.

Methods: Using census data provided by the Ministry of Health, all households in Brunei were randomly sampled. Local interviewers conducted interviews in person using a standardized questionnaire that gathered data about individual and household healthcare utilization, perceptions of healthcare quality, and expectations for future health system strengthening. The average response rate was 80 percent and 1,197 households participated in the survey. Data were analyzed using Stata 2010.

Findings: HSS data suggest that healthcare utilization in Brunei varies by ethnicity, district of residence, health status, and income. When compared to other ethnic groups, Chinese households were significantly less likely to utilize public healthcare and significantly more likely to utilize private healthcare services. Indigenous groups also demonstrated significantly lower rates of private healthcare utilization compared to other ethnicities. Temburong district had the lowest rates of both private and public healthcare utilization and was associated with a 2.67 decreased likelihood of using public healthcare in the past six months. When stratifying for health status, data indicate that healthcare utilization in Brunei is proportional to healthcare need, with 93 percent of respondents in poor health reporting using government hospitals 12 or more times in the past six months compared to 76 percent of respondents in excellent health

reporting using healthcare only once in the past six months. Income was also found to be positively associated with increased healthcare expenditures and private healthcare use.

Interpretation: Universal healthcare holds promise for improving healthcare equity and access worldwide; however, more research needs to be conducted to understand how equitable universal healthcare systems are. Surveys such as the Brunei Darussalam Health System Survey are difficult to conduct in large countries, however, they offer a key opportunity to gather population input and assess public expectations and perceptions related to universal healthcare.

Funding: Data for this project were obtained by RTI International through a contract with The Innova Group and the Brunei Darussalam Ministry of Health. The author received funding from the Duke University Global Health Institute to complete this research study.

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The architecture of a shared leadership model for health systems strengthening initiatives led by a U.S.-based academic hospital

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Program/Project Purpose: Recognizing that a changing global landscape has shaped evolution of this hospital's mission, redefined program impact beyond its immediate geographic location, and that international capabilities enhance domestic strategy and operations, this hospital has collaborated with its academic partner to develop core competency in global health leading to enhanced mission, reputation, faculty recruitment, and impact in resource-limited settings. Following more nearly two decades of work globally, in 2007, this hospital began implementing innovative, system-wide solutions to assure maximum impact of global health investments, on an individual program basis and as a collective portfolio.

Structure/Method/Design: In 2007, this hospital redefined the strategic value of global partnerships beyond traditional interpretations. The new strategy created a platform for global health practice. Rapidly shifting demographics locally, increasing efficiencies in global connectivity, faculty and trainee expectations for access to global infrastructure, and reputational positioning, all factored into recognition of new opportunity. Over the past 7 years, this hospital has developed a formalized structure and investment methodology for global health programs through the focused work of dedicated leadership and a team with targeted skill sets. Academic and clinical service lines partnerships set along side a team with core competence in global health, and a rigorous program assessment, design, and implementation framework, has resulted in a system-wide academic partnership model designed to assure maximum impact and sustainability of international partnerships.

Outcomes & Evaluation: Program outcomes include: established global partner network in 30+ countries, including formal agreements with governments and multilateral institutions; created sustainable health and education programs, contributing to transformational advancements in maternal-child health; strengthened recruitment and retention of trainees through investments in global health infrastructure; expanded hospital mission to include global health as a core commitment, and; demonstrated a comprehensive approach to program and business planning that has been adopted and applied to international domestic partnership development.

Going Forward: The following lessons have been learned: institutional benefit resultant from global health investments increases proportionately with commitment to sustained programs; development of a systematic approach and assessment model, aligned with organizational

Funding: The overall funding portfolio derives from numerous sources with 42 programs spanning 33 countries, as led by 10 core services lines within the hospital.

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