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## FINANCIAL AND OPERATIONAL SUSTAINABILITY

### Mining for solutions: Research to engage southern african miners, ex-miners, managers and policymakers, clinicians and communities on tuberculosis to improve health care delivery

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**Background:** The mining population in southern Africa has one of the highest rates of tuberculosis (TB) in the world. Previous efforts to address the disease burden have focused on delivery of diagnostic, treatment, and monitoring services. Less understood are the socioeconomic contexts in which these interventions are delivered and understandings of how such interventions are experienced by miners, ex-miners, and their families and communities. We conducted applied ethnographic study to explore what it means to live with—and disproportionately suffer from—TB and related illnesses.

**Methods:** Our interdisciplinary, multicultural research team applied a community-based participatory research framework, partnering with local, national, and regional groups to conduct ethnography with miners, ex-miners, family and community members, clinicians, managers and policymakers in Gauteng and Eastern Cape provinces in South Africa. We recruited participants through snowball and convenience sampling. Participant observation supplemented formal and informal interviews and focus groups; audio-recordings and field notes were qualitatively assessed.

**Findings:** Ethnographic interviews with 30 miners and ex-miners, 13 family and community members, 14 clinicians, and 47 managers and policymakers were completed. Four salient themes emerged. (1) Fragmentation in administration and delivery of care manifested through poor communication within and across stakeholders that led to interruptions and lack of trust in care received. (2) Work in the mines was seen as a competing economic and social force, one that supports yet divides families and communities. (3) Common experiences of invisibility left individuals, communities, and health workers feeling isolated and disempowered. (4) Tuberculosis was widely misunderstood, contributing to stigma and reduced agency.

**Interpretation:** More holistic approaches developed through partnerships to mitigate the effects of TB in the mining sector in southern Africa are urgently needed. Engaging miners and ex-miners to co-develop new models of TB care delivery based on their experiences and preferences could be a game-changer to address the unacceptable TB burden in this vulnerable population.

**Funding:** This research was supported by funding from the World Bank.

**Abstract #:** 1.001\_FOS

### Improving the availability and accessibility of emergency drugs and equipment in the Emergency department of Tikur Anbessa specialized hospital in Addis Ababa, Ethiopia

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**Project Purpose:** Emergency medicine and nursing are emerging specialties in Ethiopia. Resources remain limited and staff training and education is dependent on the availability of limited in-country experts. Tikur Anbessa hospital has a newly established emergency department that treats 18000 patients per year. It was noted that resuscitation efforts were often hampered by lack of supplies and medications. However objective of this project is to improve the availability and accessibility of drugs and resuscitation equipment from baseline 45% to 90% within six month period at Tikur Anbessa Specialized hospital's emergency department.

**Methods:** Before this project was implemented, baseline assessments and a root cause analysis were conducted using an Ishikawa cause and effect diagram in order to identify the factors that affected the availability and accessibility of drugs and resuscitation equipment in the ED.

**Outcome & Evaluation:** Since 2012 there have been significant improvement regarding the availability and accessibility of emergency drugs and resuscitation equipment after interventions were implemented. Some of the interventions identified included; Collaborate with the different stakeholder (hospital leadership and pharmacy directorate) to increase the supply of emergency drugs and equipment, Prepare standard lists of emergency drugs and equipment, Offer ongoing training for staff nurses on proper utilization, storage and restock of emergency drugs and equipment, Establish system for notification of newly arrived and nearly finish emergency drugs and equipment, Forecast consumption rate of emergency drugs and equipment to make the availability sustainable, Prepare basic needs of emergency drugs and equipment of each station (triage, resuscitation room, and procedure room, medical and surgical ward, Establish committee that work on sustainable supply, availability and accessibility of emergency drugs, equipment and supplies in collaboration with responsible stakeholders, Prepare a check list that help to assess the presences of the drugs/ equipment as per the standard.

**Going Forward:** The way forward is to work towards 100% compliance with availability and accessibility of emergency drugs and equipment by 100 %.

**Abstract #:** 1.002\_FOS

### Macroeconomic factors underlying essential cancer medication availability among low- and middle-income countries

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**Background:** While the World Health Organization (WHO) lists several cancer medications on its recent 2015 update to the Essential

Medicines List (EML), little has been done to determine the macroeconomic factors that influence ability to provide these essential medications. This study was done to explore potential macroeconomic factors related to essential cancer medication availability. The aim of this study is to explain variations in the number of essential cancer medications listed on national formularies.

**Methods:** Cancer medications on the WHO's EML were compiled and compared against official English-language national formularies made available on the WHO website. The relationships between national formulary listings and indicators of economic development were then tested. Participants were sixty low- and middle-income countries (LMICs). Exploratory analysis was conducted using regression. Both the total number of essential cancer medications and the number of newly-added essential cancer medications appearing on national formularies were tabulated and compared against a compendium of country-level national indicators of economic development from the World Bank.

**Findings:** Researchers determined the number of essential cancer medications available on national formularies for 60 LMICs. Regression analyses showed significant negative relationships between total numbers of essential cancer medications with health-related foreign aid and total health expenditures. However, a significant positive relationship existed between number of newly-added essential cancer medications and gross national income per capita.

**Interpretation:** Countries with greater income per capita provide more essential cancer medicines to its residents, but countries whose healthcare expenditures constitute a greater proportion of its total budget, or countries relying most on outside assistance, provide fewer essential cancer medicines to its residents. The main limitation of this research is that text mining was restricted to English-language documents. The main strength of this research is that it is the first study attempting to explain variations in essential cancer medication availability using measures of economic development.

**Funding:** This study was funded by the University of California, San Diego.

**Abstract #:** 1.003\_FOS

### Corporate social responsibility - The power of philanthropy in the developing world for an academic medical center

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**Program Project Purpose:** The Academic Medical Center (AMC) and its affiliated College of Medicine (COM) partner are committed to new and innovative global health platforms building on the success and developed infrastructure and human capacity of their affiliated U.S. charitable organization (Charity).

**Structure/Method/Design:** Charity operates a Network of Children's Clinical Centres of Excellence (COE) in Botswana, Lesotho, Swaziland, Malawi, Uganda, Tanzania and Romania, providing pediatric and family-centered HIV/AIDS prevention, care and treatment and support and health professional training. Each COE is managed and operated by a Charity-affiliated non-government organization (NGO). This organizational structure

ensures that the COM and AMC institutional clinical, administrative, financial, monitoring & evaluation, and operational/clinical research best practices are embraced and adhered to. It also allows for the NGOs to access Corporate Social Responsibility (CSR) programs in countries where energy, pharmaceutical, banking, and manufacturing companies operate. The goal of CSR is to embrace responsibility for a company's actions by making a positive impact on the environment, consumers, employees, communities, and stakeholders.

**Outcome & Evaluation:** Many companies prefer that their CSR programs are locally driven through public-private partnerships (P3) with Government and local NGOs. The COM and AMC have successfully engaged major pharmaceutical and energy companies and others in CSR projects in women's and child health, HIV/AIDS, malaria, malnutrition and sickle cell disease due to their experience in P3 as well as operating the affiliated NGOs. Between 2011-15, the Charity and AMC secured over \$15M for CSR projects in Africa, Colombia and Romania.

**Going Forward:** Companies that have CSR programs are encouraged to partner with United States institutions that have direct NGO affiliates on the ground in countries where they have operations. This provides opportunities for sustainable programs and services that impact local communities, build local human capacity, enhance infrastructure and build P3 alliances.

**Funding:** The COM and AMC provide in-kind support for all direct costs related to securing CSR project design, management and funding.

**Abstract #:** 1.004\_FOS

### Political economy of health research for universal health coverage: An outline of a theoretical and methodological agenda

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**Background:** Within the field of global health, there is growing interest in conducting health systems research (HSR), particularly in the service of achieving universal health coverage (UHC) within low- and middle-income countries (LMICs). Political economy analysis has been put forward as a potentially productive way for researchers to examine health systems and paths toward establishing UHC policies in LMICs. However, complicating such a research agenda are the manifold approaches to conducting political economy analysis and the general confusion regarding the term in global health. To clarify future research in this area, I have outlined a novel theoretical and methodological approach to conducting political economy analysis of health systems that is based in the traditions of the political economy of health and social medicine.

**Methods:** A narrative literature review of books and articles pertaining to the political economy of health tradition and social medicine was conducted. Authors writing in the tradition of political economy of health and/or social medicine were further examined, with particular attention paid to their research on health systems.

**Findings:** Clear theoretical and methodological trends emerged from this narrative literature review that can inform a health systems research agenda that employs political economy analysis and draws on the traditions of political economy of health and social medicine.