

**Global Health Engagement Network
Pan University Network for Global Health
Funded Pilot Projects**

In the 2014/2015 academic year of the pilot funding made available for the global health network, 9 proposals were submitted and 6 projects were funded involving 6 Universities – Penn State University (PSU), University of Freiburg (UF), University of Cape Town (UCT), University of Limpopo (UL), University of Pune (UP) and University of the West Indies (UWI). The award letters were sent December 23, 2014. Following are the 6 funded projects and investigators.

Intersection of HIV/AIDS and CNCs, focusing on Cardiovascular Diseases (CVDs): Creating Collaborative Teams: Submitted by

PSU (Lori Francis), UWI (Samuels), UCT (Oni)

Africa and the Caribbean have the highest rates of HIV/AIDS in the world, while dealing with a chronic non-communicable disease (CNC) epidemic. In middle and high-income countries, a dedicated successful system of care for people living with HIV/AIDS (PLWHAs) was developed in parallel to existing systems of care for CNCs. HIV/AIDS is now a chronic disease because of effective use of Highly Active Anti-retroviral therapy (HAART). This improvement in prognosis has not been seen for CNCs that cause the most ill-health and death in middle and upper income countries. This may in part be a result of access to relatively fewer resources than the HIV effort. This project seeks to explore the strengths and limitations of HIV care compared to care for CVDs in the Caribbean (Jamaica, Barbados and Trinidad & Tobago), Cape Town, South Africa and Pennsylvania USA. During 2015 we will create a collaborative team of investigators from these countries, and from Penn State University, to undertake situational analyses of the systems of care for HIV and CVD.

Development of a multidisciplinary network of established and emerging scholars on migration, urbanisation and health in southern Africa

PSU (Stephen Matthews), UCT (Oni & Adams)

The Southern African Development Community (SADC) region is associated with rapid urban growth; migration and mobility are key dynamics at play yet responses to urban spaces are limited. The population of the SADC is expected to double from 250m to approx 500m by 2040; just 25 years.² Given the historical and contemporary importance of population growth and urban redistribution within the SADC; and the high communicable – and increasingly non-communicable – disease burden in the region; and, the knowledge that healthy migration is good for development³, it is surprising that health responses do not sufficiently engage with and respond to migration, mobility and urbanisation. A conference will be held to discuss the following questions: What are the current social and political contexts shaping migrant health in the Southern African Development Community (SADC)? • What are the migration trajectories, health histories, and lived experiences of urban migrants --- with a focus on comparing long-term residents with new arrivals --- within the SADC region? • How should what is known about the lived experiences of migrants (both internal and cross-border) shape the research agenda with regard to health? • How does current policy and practice contribute to migrant well-being or marginality in SADC?

Strengthening Health Systems for Chronic Care: Intersection of Communicable and Non-communicable Diseases Services in South Africa

PSU (BeLue), UL (Onya) and UCT (Oni)

HIV and AIDS is the leading cause of death among adults in sub-Saharan Africa (SSA), but the burden of non-communicable chronic diseases (NCD) is high and growing. The current literature indicates that HIV/NCD co-morbidity is increasing in South Africa. Preliminary evidence from South Africa shows that this increase in HIV/NCD co-morbidity occurs at a younger age than usual NCD onset and is increasing most rapidly in urban areas. This is exacerbated by the multiplication of both demands made by disease-disease interactions such as HIV/NCD, and by the interactions with treatment modalities and service providers. Through a collaboration between The University of Limpopo, The University of Cape Town, Penn State University, and the University of Southampton, we propose to conduct semi-structured interviews guided by the CCM with patients with dual HIV/Type 2 diabetes (T2DM) morbidity in the Limpopo and Western Cape regions, to understand: 1) patient engagement with the healthcare system and to identify points of intervention by which patient outcomes may be improved and 2) identify patient perspectives to inform appropriate health care professionals and policy makers in how to develop services for such multimorbid patients which take into account of competing issues of workload and capacity in SSA.

Obesity Paradox: Body Mass Index and Mortality in US and Asian Older Adults

PSU (Gao), UP (Deobagkar, Sahni, Tambe, Nagarkar), Hebei Union University and Kailuan Hospital: Dr. Shouling Wu

United States, China, and India are the top 3 countries with the highest number of obese residents. While the relationship between obesity and adverse health outcomes is well documented in young and middle-aged adults, a body of literature suggested the obesity paradox phenomenon in older adults. Results from these studies indicated a lower risk of mortality in overweight or even mildly obese individuals when compared to 'desirable' weight participants. This underlines the importance to further investigate the relationship between body mass index (BMI) and mortality for policy changing in regards to potential modification of the current BMI guideline for the older adults. We will also examine whether the BMI-mortality relationships are different between people with versus without infectious diseases.

The Impact of Urbanization on Vitamin D Deficiency and Adverse Pregnancy Outcomes

PSU (Alison Gernand), UP (Deobagkar, Sahni, Tambe, Nagarkar)

Abstract: Vitamin D has long been known for its role in bone health and more recently has been associated with a wide range of health issues including adverse pregnancy outcomes. Skin produces vitamin D from exposure to solar ultraviolet B (UVB) radiation, and vitamin D is also found in foods. Poor vitamin D status is surprisingly common around the world, even in tropical countries where people should be exposed to UVB all year around. Moreover, research has shown that people living in urban settings have lower vitamin D concentrations than their counterparts in rural areas. The purpose of the current proposal is to form a collaborative research team from Penn State University, Pune University, and the University of Cape Town to examine how to study this complex issue in urban pregnancies, combining expertise across disciplines such as sociology, anthropology, geography, nutrition, and epidemiology.

Identifying Urban Transition Priority Areas for Mother and Child Interventions in Cape Town

PSU (Caprice Knapp), UCT (Tolullah Oni) , UF (Ursula Wittwer-Backofen) , UP(Deepti Deobagkar)

Abstract. Equitable access to quality, integrated health services for mothers and children is part of the 2015 Millennium Development Goals (WHO 2014). While some progress has been made, it has not been fast enough. The myriad of points along the mother-child continuum where society could intervene makes improvement complex. Our proposal uses a sequential, mixed methods approach to explore how best to intervene in Cape Town.

Source of Funding

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Each of the non-PSU institutional partners on a given project has been requested to provide some matching funds to supplement the PSU amount that was approved for each pilot. The total funds, including the match, will be included in the final report presented by each grant recipient at the conclusion of their project.