

Seed Grant History

The Global Health Institute awarded its inaugural Seed Grants in 2011. The \$320,000 in grants supported research projects that delved into topics from human and animal disease to agriculture to economic growth. “The institute’s mission is to tackle the root problems of human health, and to do that requires an unprecedented, multi-faceted approach to these problems,” said GHI Director Jonathan Patz when the grants were awarded. “It is really exciting to be able to find engineers, economists, agriculture and veterinary and medical science ready to step up to these challenges.”

Groups received about \$40,000 over two years to flesh out their ideas and give them a leg up on securing more substantial funding. More than two-dozen proposals were submitted as part of the global health Incubator, a series of events designed to spark collaborative and multidisciplinary research that takes a holistic approach to problem-solving. “We want a modus operandi of going into situations with diverse expertise and multiples perspectives, so that we’re more likely to catch unforeseen problems,” Patz said.

“Solutions for one problem that cause other, unintended problems are neither desirable nor sustainable solutions. What’s required is a fully inclusive, all hands-on-deck approach. UW Madison is the best place on earth to launch such an effort.”—Jonathan Patz

Previously Funded Seed Grant Abstracts

Hypertension Awareness, Treatment, and Control in Latin America

Principal Investigators: Leonelo E Bautista, MD, M.P.H., Dr.P.H.; Lina M Vera, MD, MSc; Alberto Palloni, Ph.D.; Juan P Casas, MD, Ph.D.; Jaime Miranda, MD, MSc, for the LASO investigators

We will use data from 10,496 hypertensives from the Latin American Consortium of Studies in Obesity-LASO to assess the prevalence and determinants of hypertension awareness, treatment, and control in the region. Our study will accurately characterize the magnitude of the problem of detection and management of hypertension, will identify sociodemographic factors associated with poor blood pressure control, and will provide an objective evaluation of the health and economic impact of potential population interventions to improve blood pressure control in this population.

A Multidisciplinary Approach to Understanding and Controlling Brucellosis in the Imbabura and Pichincha Provinces in Ecuador

Principal Investigators: Poulsen K.P.; Hutchins F.T.; Gaus D.P.; Van Kekerix M.J.; Lopez L.; Trueba G.; Czuprynski C.J.; Olsen C.W.

The goals are to understand upstream determinants/root causes of brucellosis in the Ecuadorian animal populations, and to educate Ecuadorian animal owners about risk factors for brucellosis

in cattle and other species, and transmission to humans (e.g., unpasteurized dairy products, contact with parturient animals).

The Effects of Agricultural Productivity on Poverty and Household Food Security: The Sahel's Silent Maize Revolution

Principal Investigators: Jeremy Flotz, Ph.D.; Sara Patterson, Ph.D.

This work seeks to investigate whether higher agricultural production translates into poverty reduction and better household food security outcomes. We hope to identify ways that farmers of both genders can continue to maintain or improve yields, provide needed nutrition and profit, and minimize damage to the environment.

Evaluation of Alternative Strategies for Emerging Disease Detection

Principal Investigators: Jerry Zhu, Ph.D.; Bret Shaw, Ph.D.; Lewis Gilbert, Ph.D.; Joshua Dein, V.M.D.

We propose to develop and improve on monitoring processes that will enhance our ability to detect changes in the patterns of wildlife disease occurrence that may signal the very earliest stages of disease emergence in human / animal systems. Expanding the observational corps may be accomplished by both examining content on social networks, and engaging existing citizen monitoring groups to extend their mission to include wildlife morbidity and mortality events.

Mobile Phone-Disseminated Health Information

Principal Investigators: Monica J. Grant, Ph.D.; Jay K Sethi, Ph.D.; James H. Conway, MD

Using participatory-based research methods, our proposal aims to establish feasibility and to pilot the dissemination of health information within existing mobile phone networks using a theory-driven intervention. These demonstration projects will be conducted within existing study populations and collaborations in Malawi and Uganda that monitor and evaluate child survival and HIV/AIDS.

Pathways for Poverty Reduction in Haiti: Health and economic impacts of organic mango Production and Processing

Principal Investigator: Gary P. Green, PhD; **Co-Investigator:** Bradford L. Barham, PhD; **Co-Investigator:** Gergens Polynice, MS

This project examines potential pathways to increase small-scale producers' income through mango production and transformation for the local and international markets. It will investigate the production pattern and the effects of prices on farmers' willingness to plant more mango trees as well as assess ways to diminish postharvest loss and disease transmission through proper fruits handling system.

Participatory Action Research and Planning to Improve Young Women's Reproductive Health: A lever for change in reaching the MDGs

Principal Investigators: Nancy Kendall, Ph.D.; Claire Wendland, MD, Ph.D.

The study focuses on girls who are approaching the critical stage of finishing primary school (commonly ages 13 to 17), with the aim of developing innovative, gender responsive, multisectoral activities that both foster resilience and protect them from life-stage risks such as early pregnancy and HIV infection, and have broader benefits that enhance family and community health. This project aims to create a scalable model for change that: 1) provides a more participatory way of working with youth to recognize and address the barriers they face in making healthy decisions in their lives; 2) creates a space for new dialogue (and potentially models of governance) concerning the roles of the state, community leaders, and youth in addressing barriers to young women's reproductive health; and 3) empowers communities, working together, to generate a locally appropriate, multisectoral intervention that draws on both local and international knowledge to improve young women's reproductive health.

Fertility, Child Health and Human Capital in Low Income Countries

Principal Investigators: Ian Coxhead; Lia Fernald; Jenna Nobles; Alberto Palloni

We seek funding to estimate the effects of child nutritional status on individual characteristics associated with population-level human capital formation, economic growth, and income inequality. In combination, nutrition and attendant health status predict mental and emotional development, educational achievement and attainment and, ultimately, labor force participation, occupational attainment and wages. We choose to study these relations in the context of Indonesia, a country that simultaneously experiences a decline in fertility that favors maternal and child health and nutritional status and the adoption of behaviors associated with breastfeeding, diet and behavior that hinder them.