

ENCINA COLUMNS

FSI AND SCHOOL OF MEDICINE Expand Global Health Research

BY VERONICA MARIAN



MICHELE BARRY, WITH PRESIDENT ELLEN JOHNSON SIRLEAF OF LIBERIA, WILL COLLABORATE WITH FSI'S CENTER ON HEALTH POLICY TO ADDRESS GLOBAL HEALTH CHALLENGES IN DEVELOPING COUNTRIES.

GLOBAL HEALTH DISPARITIES ARE ON THE RISE. The international financial crisis has exacerbated growing health inequality and the trend is expected to continue. Recognizing the connection between poor health outcomes in developing countries and the political, legal, and economic conditions that underlie them, FSI and Stanford Health Policy (SHP) will have a new affiliation with Stanford School of Medicine's Center for Global Health across the spectrum of technological innovation, business, economics, governance, and security to tackle challenges for the world's medically underserved.

"Traditional approaches in medicine and public health are coming up against their limitations," asserts Michele Barry, senior associate dean for global health at Stanford School of Medicine, who believes broadening the field of medicine to include new disciplines and sectors is critical to achieving positive, sustainable solutions to global health challenges.

Barry's passion for collaboration drew her away from a 28-year career at Yale to Stanford, where she is launching an ambitious cross-campus program aimed at advancing affordable and workable scientific innovation in drugs, medical devices, and diagnostics for the developing world where health inequity is at its worst. The Consortium in Innovation, Design, Evaluation, and Action (or "C-IDEA") is an NIH-funded \$8 million, three-year multidisciplinary initiative to accelerate progress in innovative design of affordable diagnostics, drugs, and devices for global health.

"Researchers outside of medicine provide insights that contribute to higher quality and lower cost products, higher acceptance rates, and more effective delivery systems," says Barry.

Alan Garber, director of Stanford Health Policy, affirms the benefits of this new partnership. "Michele Barry brings energy and vitality to an area of great importance and complements our activities in global health and development. We look forward to working with the Center for Global Health to help solve some of the most important problems facing mankind today." ■

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Life Expectancy: A Matter of Politics?

BY SARINA BEGES

WHILE LIFE EXPECTANCY has generally increased across the world, the average life expectancy for Russian men plummeted after the fall of communism to 59 years, now the lowest among industrialized countries. By contrast, infant mortality rates have improved in authoritarian China, Cuba, and Iran, but also in many emerging democracies. These statistics have captured the attention of scholars at the Center on Democracy, Development, and the Rule of Law (CDDRL), who question how governance structures impact public health outcomes in transitioning countries. CDDRL and Stanford Health Policy (SHP) faculty are together pioneering new research to examine how regime type and social policies are contributing to the demographic crisis in Russia and the decline in infant and child mortality rates in many other parts of the world.

Kathryn Stoner-Weiss, CDDRL deputy director, and Rajaie Batniji, postdoctoral fellow in the Department of Medicine, are recipients of an FSI Global Underdevelopment Action Fund award for their work studying the high mortality rate of Russia's working-age population. They were struck by the fact that Russians have lived shorter and less healthy lives despite rising GDP and health spending after 1999, leading them to believe that political causes have played a role in this statistical anomaly. The majority of these deaths are from preventable diseases, indicating the government's failure to deliver effective health care and education to the public. "Rising adult mortality rates pose a serious if not existential challenge to Russia's future economic development," says Stoner-Weiss. "With the contraction of democratic competition, press freedom, and civil

society in Russia since 2000, it is plausible to argue that political factors are contributing to the demographic crisis, and we want to determine whether and how this might be so."

Another study, by CDDRL's Beatriz Magaloni and Stanford Health Policy faculty Paul Wise and Grant Miller, seeks to uncover the political factors underlying the declines in infant mortality in the postwar era. The team has built an extensive data set from demographic and health surveys covering more than 60 countries, which will be analyzed to identify the political incentives that motivate governments—both democratic and authoritarian—to improve maternal and infant health outcomes. The first stage of this research was presented last April at a joint CDDRL/SHP conference, *Better Governance for Better Health*, which brought together leading experts committed to improving health in developing countries.

The question of life expectancy lies at the intersection between governance and public health. CDDRL and Stanford Health Policy's multidisciplinary approach is bringing us closer to understanding this relationship to increase life expectancy and enhance health outcomes in Russia and beyond. ■

PHOTOS:

- 1 MOTHER AND CHILD IN KENYA (ELIZABETH WALSH, COURTESY OF USAID)
- 2 UZBEKISTAN (COURTESY OF USAID)
- 3 NICARAGUA (MICHAEL PAYDOS, COURTESY OF USAID)
- 4 PAKISTAN (JOHN SNOW, COURTESY OF USAID)

CISAC Team Discovers North Korea's New Nuclear Capabilities

BY MICHAEL FREEDMAN

CISAC SCHOLARS Siegfried Hecker, John W. Lewis, and Robert Carlin made international news after North Korean officials revealed to them that they had started construction on a small, experimental light-water nuclear reactor and had completed a new uranium enrichment facility. Hecker, CISAC's co-director, said he was "stunned" by the size and sophistication of the new plant at the Yongbyon Nuclear Scientific Research Center. Expecting to see a handful of small centrifuges, he and his colleagues found instead 2,000 ultramodern centrifuges neatly aligned and plumbed. "The control room was astonishingly modern," Hecker wrote in his account of the trip. "Unlike the reprocessing facility and reactor control room, which looked like 1950's U.S. or 1980's Soviet instrumentation, this control room would fit into any modern American processing facility."

All three men had traveled to North Korea on numerous occasions, and on the long drive back to Pyongyang it became clear that this revelation changed the security calculus for Northeast Asia. The U.S. goal has long been denuclearization of the Korean peninsula, but any future discussions toward achieving this end must now take into account the existence of the new facilities, Pyongyang's relationships with Pakistan, Iran, and China, and the troubling possibility that North Korea could begin exporting fissile materials or the means of producing them.

Upon returning to the United States, Hecker briefed the secretary of state and the National Security Council and the Department of Energy on his findings and delivered a presentation with Carlin to top Washington media outlets at the Korea Economic Institute. Hecker and Lewis later gave a standing-room-only talk to Stanford students, staff, and faculty, as well as local media, at Encina Hall.

In a *Washington Post* op-ed, Carlin and Lewis argued that it was time now for a thorough review of U.S. policy toward North Korea. "While the United States has stood aside, hoping time and circumstances would force North Korea to accede to demands for denuclearization, the North has forged ahead with its own plans," they wrote. "U.S. policymakers need to go back to square one. A realistic place to start fresh may be quite simple: accepting the existence of North Korea as it is, a sovereign state with its own interests."

In a subsequent piece for *Foreign Affairs*, Hecker urged the United States to continue to push for denuclearization of the peninsula and in the meantime press for "the three no's—no more bombs, no better bombs, and no exports—in return for one yes—Washington's willingness to seriously address North Korea's fundamental insecurity along the lines of the joint communiqué," which stated that neither government would have hostile intent toward the other and confirmed the nations' commitment toward building a relationship free from past enmity. It is of course difficult to determine whether the United States will move ahead on these policy recommendations. But as Hecker concludes in his *Foreign Affairs* piece, "Pyongyang's revelation of the centrifuge facility makes it more challenging and more pressing than ever to ask that question." ■



PHOTOS:

SIEGFRIED HECKER (RIGHT) AND JOHN LEWIS PRESENT DETAILS ON NORTH KOREA'S NEW URANIUM ENRICHMENT FACILITY TO STANFORD RESEARCHERS AND LOCAL MEDIA. COMPARATIVE SATELLITE PHOTOS ILLUSTRATE SPEED AT WHICH THE FACILITY AT PYONGYANG WAS CONSTRUCTED AND PUT INTO OPERATION.

A FULL REPORT ON NORTH KOREA'S YONGBYON NUCLEAR COMPLEX CAN BE FOUND AT THE FSI WEBSITE. [HTTP://FSI.STANFORD.EDU/PUBLICATIONS/23035](http://fsi.stanford.edu/publications/23035)

Finding Common Ground

BY ROLAND HSU



THE ISSUES SURROUNDING THE NEXUS OF U.S.-EUROPE-EURASIAN-MIDDLE EAST RELATIONS seem unending and insurmountable: growing immigration and strains on social cohesion, international energy security, the impact of war and conflict on gender equality, trafficking and human rights, environmental change and resource shortage, and international peace mediation. Much attention has been directed toward identifying the crises, yet great difficulty remains in resolving competing interests between those in conflict and among those who seek a solution. The Europe Center's new multi-year project, *Reconciliation and Conflict Resolution*, with research partners in Europe and the greater Middle East, aims to find common ground among conflicting responses to international and civil crises.

THE DEFINITIONAL CHALLENGE

For many, reconciliation is a loaded word containing conflicting traditions, goals, and degrees of support. The victors of World War I chose indemnity as the way to reconcile punitive and reparation interests. After WWII, international trials were fashioned to reconcile recrimination, national interests, geopolitical alliances, and human rights. In post-apartheid South and Southern Africa, indigenous models of truth and reconciliation commissions emphasized witness testimony and communal transitional justice. These historical examples, as well as today's cases of divided societies and conflict resolution missions, expand and differentiate theories of reconciliation.

In this project we understand reconciliation to include not only formal political negotiation and compromise but also the processes by which political, economic, intellectual, and cultural actors acknowledge diverse historical knowledge and asymmetry of post-conflict sovereignty. In Europe's international and domestic conflicts, to reconcile does not necessarily mean to resolve or erase difference. This project's umbrella theme of *differentiated reconciliation*—of rights, national interests, and communal norms—recognizes the importance of acknowledging difference and asymmetry as a part of sustainable resolution.

ENGAGING ALL PERSPECTIVES

Reconciliation and Conflict Resolution calls for a thorough examination in order to identify and promote a new understanding of reconciliation for the 21st century. Through individual and collaborative research, visiting scholar exchange, and international workshops, we will engage historical and contemporary religious, philosophical, political, environmental, social, and cultural aspects of reconciliation. We will explore understandings of reconciliation in the broadest possible manner, stimulating dialogue across the humanities, social sciences, and law and in specific contexts such as

- Philosophical and religious dimensions, including the contested issue of compromise;
- National and international case studies with emphasis on the Middle East;
- Communitarian disputes among conflicting beliefs, ethnic groups, citizens, and immigrants;
- Transnational economic, social, and environmental interests—shared and contested;
- Cultural intervention—how literature, cinema, and the arts mediate and bridge divides.

Toward this end, the Europe Center will host three major conferences that will address 1) problems of democracy promotion, 2) history, memory, and reconciliation, and 3) sovereignty, identity, and the nation. The first conference will be held in Jerusalem on May 18-19, 2011, in partnership with the Van Leer Jerusalem Institute. ■

PHOTOS:

AFRICAN MIGRANTS TAKE PART IN A MASS MARCH MARKING INTERNATIONAL HUMAN RIGHTS DAY IN TEL AVIV'S RABIN SQUARE DECEMBER 10, 2010 (NIR ELIAS).

A PALESTINIAN WOMAN HOLDS A PALESTINIAN FLAG IN FRONT OF ISRAELI SOLDIERS DURING A PROTEST AGAINST THE CONTROVERSIAL ISRAELI BARRIER IN BILIN (MOHAMAD TOROKMAN).

FOR MORE INFORMATION ABOUT THE PROJECT OR JOINING THE DIALOGUE, GO TO [HTTP://EUROPE.STANFORD.EDU/](http://EUROPE.STANFORD.EDU/).

Stanford Health Policy Leads Consortium to Evaluate Health Programs in India

BY TEAL PENNEBAKER

DESPITE THE VAST SUMS OF MONEY foundations and development agencies spend on global health, remarkably few rigorous studies have looked at the impact of these investments. To help fill this gap, Stanford Health Policy core faculty member Grant Miller and colleagues created a new consortium to study health aid in India, called COHESIVE-India (Collaboration for Health System Strengthening and Impact Evaluation in India). The group is a joint effort of Miller, Manoj Mohanan at Duke University, Marcos Vera-Hernandez at University College London, and Jerry La Forgia at the World Bank.

COHESIVE-India partners with development agencies such as the British Department for International Development and the Bill & Melinda Gates Foundation to conduct rigorous analyses of major health policy interventions being pursued by Indian states. But COHESIVE-India also wants to use these studies to provide deeper insight into what prevents such programs from being more effective—essentially turning its analysis of Indian health projects into insights with broader relevance for global health policy design.

“We want to understand the behavioral and structural reasons why so many of these well-intentioned health policy programs often do not succeed,” Miller explains.

An illustrative example is a planned evaluation of a new health project in the state of Bihar, the poorest state in India. A recent visit by Melinda Gates to Bihar sparked the Gates Foundation’s interest in engaging the private sector to improve health care delivery by using telemedicine technology. The foundation is now supporting the Indian NGO World Health Partners to expand its social franchising programs across the state.

World Health Partners will extend its current social franchising program in Uttar Pradesh to encompass a broader array of health services and use newly available telemedicine technologies with the help of the Gates Foundation. To do so in Bihar, it will organize existing private providers into health service delivery networks. At the nexus of each network is a telemedicine center to which cases can be referred for consultation with highly trained clinicians in Delhi and Patna (the capital of Bihar). The overall objective is to create fiscally viable rural networks capable of tapping urban India’s well-trained medical personnel.

It’s a well-intentioned idea, but will it work? COHESIVE-India is mapping out a strategy to provide an answer.

Through a series of experiments, Miller, collaborating Stanford Health Policy faculty member Jeremy Goldhaber-Fiebert, and other colleagues are planning an assessment of the program’s efficacy, as well as studies of how residents of Bihar choose health care providers, how they understand and value improvements in health care quality, and how better provider incentives can improve the effectiveness of rural health networks like the World Health Partners program.

Overall, through the Bihar project and others like it, COHESIVE-India is laying a foundation upon which its larger vision rests.

“We’re essentially trying to respond to an urgent unmet need for assessing the impact of donor-financed health programs in India,” Miller says. “We hope this model of assessment and improvement of programs can be built into a large-scale agenda and applied in real time so that we have a much leaner, faster way of doing research beyond simple evaluations while also providing feedback on the effectiveness of health programs.” ■



PHOTO: GRANT MILLER VISITS A CLINIC IN BIHAR, INDIA, THAT USES TELEMEDICINE TO EVALUATE PATIENTS.

ACTION FUND AWARDS

Seed grants from the Global Underdevelopment Action Fund were made in October. Totalling \$236,000, the awards will jumpstart multidisciplinary, policy-relevant research on global development problems and train graduate students and emerging scholars.

The Action Fund grew out of FSI’s spring 2010 conference, **Technology, Governance, and Global Development**, featuring Bill Gates as keynote speaker. Reflecting the growing collaboration of FSI and the School of Medicine on global health, several projects have a health dimension.

Explaining and Improving U.S. Global Health Financing. Eran Bendavid, *assistant professor, medicine*; Rajaie Batniji, *postdoctoral fellow, medicine*.

Peasants into Democrats: Evaluating the Impact of Information on Local Governance in Mali. James Fearon, *professor, political science*; Jessica Gottlieb, *PhD student*.

Effects of “Best Buy Health and Nutrition Toolkit” for Improving Educational Outcomes in Rural China. Scott Rozelle, *FSI senior fellow*; Patricia Foo, *MD/PhD student*.

Controlling Drug-Resistant Tuberculosis: A Cooperative Agenda for China and North Korea. Gary Schoolnik, *professor, medicine, microbiology and immunology*; Sharon Perry, *senior research scientist*.

Political Causes of Russia’s Public Health Crisis. Kathryn Stoner-Weiss, *FSI senior fellow*; Rajaie Batniji, *postdoctoral fellow, medicine*.

Adoption and Ongoing Use of Improved Biomass Stoves in India. Frank Wolak, *professor, economics, FSI senior fellow*; Mark Thurber, *PESD associate director*.



JAPAN'S LIFE EXPECTANCY IS THE GREATEST IN THE WORLD and its fertility rate is one of the lowest. South Korea similarly faces a rapidly aging population and very low fertility. As China continues its policies to control fertility, the median age of its population is creeping higher and will soon exceed that of the United States. How are the governments of each country facing the social, economic, and political effects of demographic change? How are families and individuals affected? What are the challenges—and the opportunities? Shorenstein APARC is tackling these and other critical questions through its research initiative led by Karen Eggleston, director of the Asia Health Policy Program and a Shorenstein APARC fellow, focusing on the issue of East Asia's changing demography.

Facing East Asia's Demographic Transition

BY SARAH LIN BHATIA



PHOTOS FROM TOP:

COVER OF *AGING ASIA: THE ECONOMIC AND SOCIAL IMPLICATIONS OF RAPID DEMOGRAPHIC CHANGE IN CHINA, JAPAN, AND SOUTH KOREA*, FORTHCOMING WINTER 2011;

THE MEDIAN AGE OF CHINA'S POPULATION WILL SOON SURPASS THAT OF THE UNITED STATES (CHRIS LEE);

PARTICIPANTS OF THE FEBRUARY 2009 *AGING ASIA* CONFERENCE: NAOHIRO OGAWA, NIHON UNIVERSITY; (LEFT); SOONMAN KWON, SEOUL NATIONAL UNIVERSITY; JOHN C. CAMPBELL, UNIVERSITY OF MICHIGAN; AND EDWARD NORTON, UNIVERSITY OF MICHIGAN (DEBBIE WARREN).

A major challenge often highlighted is the potential negative impact aging places on the economy. The cost of caring for an increased number of elderly, coupled with the effect of a shrinking workforce, puts pressure on government and society and can test the resilience of an economy. "It is true that some aspects of population aging can be bad for economic growth," says Eggleston, "but there also are policy and individual responses that may moderate the effects." Citing an example from Japan, Eggleston describes research findings that demonstrate that the savings of the older generation has, in fact, contributed to economic growth and that healthier elderly may work longer and otherwise contribute to the next generation.

With its "baby boom" generation transitioning into retirement, the link between aging and economics is a salient one for the United States. Interestingly, notes Eggleston, the effects of aging are less pronounced in the United States than in East Asia due, in part, to a higher fertility rate in the United States and its history of a comparatively open immigration policy. "For some policy areas such as health care, there are much bigger issues [than aging]," says Eggleston, "such as what we are spending per person per age group and the growth of that spending. Just aging *per se* is not as big an issue as people might think."

Together with the Global Aging Program at the Stanford Center on Longevity, Shorenstein APARC sponsored the initiative's first conference, *Aging Asia: Economic and Social Implications of Rapid Demographic Change in China, Japan, and Korea*, bringing together 20 scholars from Stanford and institutions throughout the United States and East Asia. The outcome of the conference was its newly released companion book edited by Eggleston and Shripad Tuljapurkar, the Dean and Virginia Morrison Professor of Population Studies in Stanford's Department of Biology. The book covers a diverse range of issues associated with demographic change, including intergenerational transfers in Japan, marriage and the elderly in China, pension reform in South Korea, and the Asia-Pacific diabetes epidemic.

The next step in the project will be a follow-up workshop, *Comparative Policy Responses to Demographic Change in East Asia: Defining a Research Agenda*, on January 20-21, 2011, through which an interdisciplinary, policy-oriented research agenda will be defined. "Our research on the economic, social, and political/security aspects of demographic change is intended to be tangible for individuals and families, as well as for broader national policy," states Eggleston. ■

FOR MORE INFORMATION ABOUT SHORENSTEIN APARC'S RESEARCH ON DEMOGRAPHIC CHANGE, PLEASE VISIT THE CENTER'S WEBSITE: [HTTP://APARC.STANFORD.EDU/NEWS/2667](http://APARC.STANFORD.EDU/NEWS/2667).

Food Price Volatility and the World's Poor

BY ASHLEY DEAN

AN OCTOBER 13 *NEW YORK TIMES* headline article warned that an increasingly volatile market for grains could lead to a repeat of the 2008 food price run-up. That price spike left more than 1 billion people in a state of food insecurity—a threshold symbolic in its extreme order of magnitude and in the challenges it presents for combating global hunger in the future. In a paper released December 20 in *Population and Development Review*, Rosamond Naylor, director of the Program on Food Security and the Environment (FSE), and Walter Falcon, deputy director, provide

insight into the causes and consequences of these volatile events.

Expectations—often faulty—have played a key role in price volatility over the past decade. Uncertain exchange rates and macro policies added to price misperceptions, as did flurries of speculative activity in organized futures markets, particularly as a result of the growing biofuels market.

“These events highlight new linkages between agriculture-energy and agriculture-finance markets that affect the world food economy today,” explains Falcon. “More importantly, volatile markets compound problems of low crop productivity, increase reliance on food imports, and aggravate other internal causes of instability—conflict, weak institutions, and inadequate infrastructure—that typically plague the world’s poorest countries.”

To see how the rural poor were impacted on a local scale, Naylor and Falcon looked at Ghana, Uganda, Malawi, Guatemala, and India. Price changes at the local level during the 2008 price spike were frequently half those of international prices, primarily as a consequence of domestic food and trade policies.

“Price variability, particularly spikes, has enormous impacts on the rural poor who spend a majority of their income on food and have minimal savings,” says Roz Naylor. “Impacts at the local level have not been well measured, yet are key to improving food security globally.”



“The price bubble was undeniably grim for poor consumers, particularly for households living under \$2 per day, but not as debilitating as many commentators suggested,” says Falcon. “Unfortunately, most price stabilization efforts aimed at the poor, however well intended, ended up helping larger net producers much more than those at the margin.”

Additionally, domestic self-sufficiency policies tended to have long-term negative impacts on the international market when governments lacked the resources to defend a targeted price or were “large actors” with

significant shares of global production or consumption.

For example, in the spring of 2008, the Indian government placed a ban on rice exports—a major staple in the country—when it feared significant increases in grain prices and a spread of Ug99 (wheat rust). This ban affected food prices from Asia to Africa, created mini-panics within food importing countries, and added to global grain price variability. It underscored the growing food security and crop interdependencies among nations, arising from pathogens, prices, and policies.

The extreme heat wave that hit Russia and Eastern Europe in the summer of 2010, coupled with floods in Pakistan, declining estimates of maize stocks in the United States, and uncertainties about global GDP growth have captured the attention of many analysts and policymakers. What will happen to prices in terms of spikes, trends, and variations during 2011-2013 and beyond is uncertain.

“What is known,” says Naylor, “is that the causes and consequences of food-price variability deserve much more attention if we are going to alleviate global food insecurity in the future.” ■



The Natural Gas Challenge: A Way Toward Clean Energy in Asia

BY JOSEPH CHANG

NATURAL GAS EMITS HALF AS MUCH carbon dioxide and negligible sulfur compared with coal in electricity generation, and yet it is often neglected in debates about how to combat climate change and pollution. A key issue is that many gas-producing Asian countries—which could reap huge benefits from this clean energy source—lack a comprehensive set of policies to encourage the development and use of gas. Researchers at the Program on Energy and Sustainable Development (PESD) have studied natural gas markets for many years, but the emergence of new technologies to extract gas from unconventional sources, combined with the increase in gas demand in major emerging markets like China and India, where displacement of coal would have significant environmental importance, makes this research more relevant than ever. In an upcoming appearance at the 2011 Pacific Energy Summit in Jakarta, PESD Associate Director Mark C. Thurber and Research Associate Joseph Chang will present a study on how governments in Asia can sustainably encourage the use of gas without making its provision uneconomic.

The adoption and use of gas are hindered by several obstacles, the largest of which is the fact that gas is very costly and difficult to transport compared with liquid or solid fuels, especially over long distances. Investors in gas projects depend on many years—often 20 or more—of reliable operation to recover their capital outlays. This means that governments must offer a predictable investment climate and transparent regulatory framework to attract capital and technology from investors and help ensure that demand is

available at prices sufficient to foster confidence in long-term cost recovery.

In promoting gas as a clean and abundant fuel, governments have often elected to keep gas prices low—below what could be charged in an open market or through export. For example, India's regulated gas prices are highly preferential to fertilizer producers, certain industries, and residential consumers who otherwise could not afford the gas. But, while low prices stimulate demand, they tend to discourage producers from extracting more gas. The result has been significant shortages as gas demand has increased. In gas-exporting Indonesia, producers are required to provide a certain quota of gas to domestic consumers at controlled prices. Here too, low domestic prices have made producers more inclined to find ways to export the gas rather than sell it at home, leading to domestic shortages.

A strategy that balances domestic demand for cheap gas with the need to encourage production is the creation of “hybrid” markets that feature both centrally planned and liberalized components. For example, India in the late 1990s created a parallel gas-licensing track that allowed new licensees to sell gas at market-based prices. This approach has been highly successful; today more unregulated gas is sold in India than regulated gas. Creative policy solutions such as the hybrid market is one way to circumvent entrenched interests opposed to change and allow the potential of natural gas as a clean and abundant fuel to be more fully realized. ■

PHOTO: LNG TANKER LOADING LIQUEFIED NATURAL GAS AT LIQUEFACTION PLANT (ISTOCKPHOTO)

Plagues, Politics, and Pedagogy

BY ANH TAN



IMAGINE A GROUP OF HIGH SCHOOL STUDENTS being presented with the following mandate: Develop a health policy to reduce the prevalence of diarrheal diseases in Africa. What questions would they ask? What obstacles would they encounter? What other important factors should they be examining? The biological causes of the illness? Its adverse effects on human health and society? The complexity of providing health interventions in rural settings?

This was the challenge for Stanford students in an innovative “learning through teaching” course, *Plagues and Politics: Critical Links Between Politics, Economics, and Infectious Diseases in Africa*, coordinated by Professor Richard Roberts, director of the Center for African Studies (CAS); Laura Hubbard, CAS associate director; and Gary Mukai, SPICE director; and facilitated by Anh Tan, SPICE curriculum specialist.

During the 2010 autumn quarter, students performed in-depth research in order to design high school lesson plans on malnutrition, sanitation and water access, river blindness, malaria, and tuberculosis, each examining how infectious diseases and politico-economic policies influence one another. The result of their efforts will be incorporated into SPICE’s newest curriculum unit, *Politics, Economics, and Infectious Diseases*.

The multidisciplinary course pulled together faculty and students from a wide variety of departments across campus, including FSI, history, political science, infectious diseases, microbiology and immunology, and medicine, and from all levels, freshmen to medical students. It is part of SPICE’s larger effort to develop a series of global health curricula for youth, which is supported by a grant from the Presidential Fund for Innovation in International Studies (PFIIS). The materials primarily target U.S. high school students, but SPICE seeks to collaborate with African educators to make the teaching tools relevant to African students. ■

PHOTO: DAVID KATZENSTEIN, PROFESSOR OF MEDICINE, INFECTIOUS DISEASES, (SEATED) AND GARY MUKAI, SPICE DIRECTOR, (FAR RIGHT) WERE JUST A FEW OF THE LEADERS FOR AFRICAST 151B THAT DREW FACULTY AND STUDENTS FROM ACROSS CAMPUS TO DEVELOP CURRICULUM ON AFRICAN HEALTH POLICY FOR HIGH SCHOOLS.

Boots on the Ground: Undergraduate Research in Vulnerable Communities

BY VERONICA MARIAN



PHOTOS: NOELLE PINEDA '10 (FAR RIGHT) AND CHINESE ACADEMY OF SCIENCE RESEARCHER (CENTER) INTERVIEW A YOUNG GIRL FROM A POOR MIGRANT NEIGHBORHOOD IN BEIJING ABOUT HER NUTRITION HABITS.



STANFORD MEDICAL VOLUNTEERS, INCLUDING THE FSI UNDERGRADUATE RESEARCH TEAM, PREPARE IN THE VILLAGE OF SAN JUAN EL MIRADOR TO SET UP A PROVISIONAL CLINIC AND TO INTERVIEW FAMILIES ABOUT LOCAL HEALTH CARE SERVICES.

IN ITS QUEST TO INTRODUCE YOUNG MINDS to complex global challenges, FSI is piloting a program to immerse undergraduates in global development field research. Supported by FSI's Dachs Undergraduate Research Fund and the Office of the President, two student teams ventured to China and Guatemala last summer to carry out research that the students themselves designed. The students were selected from a large pool of applicants for their prior experience working abroad, interest in poverty alleviation, and long-term goals of working in global development. The multidisciplinary teams represented a diverse set of academic backgrounds, from anthropology to earth systems to MS&E.

Under the direction of empirical economist and REAP Director Scott Rozelle, Stanford undergraduates Yi Lu '11, Noelle Pineda '10, and Son Ca Vu '10 traveled to China to implement a nutrition survey for families in poor neighborhoods on the outskirts of Beijing and Hangzhou, two large urban centers that face an enormous influx of migrants from rural western provinces.

"Students interested in global development need to get out of the ivory tower to truly grasp the nature and scope of problems associated with poverty and lack of resources," asserts Rozelle. "This program provides a rare opportunity to expose undergraduates to the daunting barriers faced by poor migrant families as they seek to become part of China's economic transformation."

The China team was joined by Stanford medical student Anubha Agarwahl and Rozelle's partners at the Chinese Academy of Science. With their help, the students refined and carried out their survey

on the dietary knowledge and habits of migrant families. Designed to better understand the role nutrition plays in the academic performance of migrant children, the survey has been added to REAP's extensive armamentarium of research tools.

A second undergraduate team joined Paul Wise, an SHP core faculty member, and a delegation of medical volunteers in the rural highlands of Guatemala to perform health care research and clinical outreach among the area's poor indigenous population. Caroline Adams '12, Bianca Argueza '11, Anand Habib '11, and Jessica Uno '11 worked with Wise and preceptor Kate Leonard, a pediatrician and clinical instructor at Lucile Packard Children's Hospital, to gather and analyze responses from village women of child-bearing age, their husbands, and village midwives, about their knowledge and beliefs concerning pre- and perinatal care.

The project assists local practitioners in understanding and addressing key challenges in delivering medical services to expectant and new mothers. The students made daily visits to remote villages to interview families and each evening gathered with Wise and the volunteers to discuss impressions and assess the progress of their work. At the conclusion of their visit, the students made a presentation to the local community health promoters on their key findings.

FSI hopes to garner additional funding to make undergraduate field research a permanent feature of the institute's training program, with the aim of establishing a pipeline of problem solvers to tackle global development challenges for the next generation. ■

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WELCOME TO **ENCINACOLUMNS**

FSI was once again at the forefront of global issues. In a November visit to North Korea, CISAC's Siegfried Hecker and John Lewis were the first outsiders to be shown the previously secret North Korean uranium enrichment facility.

FSI Payne lecturer, the Honorable Carlos Pascual '80, U.S. ambassador to Mexico, explained how the dichotomy of extremes—Mexico's poverty and economic growth—provides the backdrop to the escalation of drug cartel violence. Pascual also hosted a CDDRL faculty delegation led by Beatriz Magaloni for discussions on poverty and governance with scholars from the Instituto Tecnológico Autónomo de México.

The institute celebrated a number of inaugural events including a first public lecture by FSI Senior Fellow Francis Fukuyama, titled "What is Development?" The first Global Underdevelopment Action Fund awards were made for six faculty projects investigating causes of and solutions for poverty in the world's poorest countries. The Action Fund is the outgrowth of FSI's 2010 conference, *Technology, Governance, and Global Development*, featuring keynote speaker Bill Gates.

This fall, Stanford broke ground on the Stanford Center at Peking University. FSI has been asked to manage the construction and future operations of this new campus, which will support education, research, and conferences for students, faculty, scholars, and alumni from across Stanford and around the world.

In 2011, we are expanding our collaboration with the School of Medicine on health issues that affect all of FSI's centers and programs. Shorenstein APARC will celebrate the 10th anniversary of its Korean Studies Program, under the gifted leadership of Gi-Wook Shin, with a conference on February 23-25. The Europe Center will host John Micklethwait, editor-in-chief of *The Economist*, for the center's inaugural lecture in May.

We are profoundly grateful for your interest in our work and your ongoing support for our efforts to address some of the most pressing and important issues of our time.

Sincerely,



COIT D. BLACKER, DIRECTOR