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Global Health Matters

Fogarty International Center (NIH/HHS)
"Science for Global Health"

Stigma: Epilepsy—see page 5

INSIDE THIS ISSUE:

Multinational Influenza Seasonal Mortality Study

The Multinational Influenza Seasonal Mortality Study (MISMS) is an international collaborative effort to analyze national and global mortality patterns associated with influenza virus circulation.

Led by Dr. Mark Miller, Director, Division of International Epidemiology and Population Studies, (DIEPS), FIC, the MISMS was established in 2001.

The program has developed multi-national collaborations to collect, analyze and disseminate research findings to assess global and seasonal patterns of influenza disease, virus circulation and viral genomic evolution. Investigators and public health officials—frequently from other countries—engage with FIC to conduct joint analyses that fulfills research and functional public health needs.

"These collaborations foster the best of what FIC has to offer, an environment that advances science, a public health agenda and long-lasting international engagements with partners who are current, or future, health leaders," said Dr. Miller.

The program has sparked a number of other influenza initiatives at the NIH—for which FIC has been actively engaged. These include the modeling efforts undertaken by Models of Infectious Disease Agent Study (MIDAS), National Institute of General Medical Sciences (NIGMS) and the influenza genome sequencing project by the National Institute of Allergy and Infectious Diseases (NIAID) and the National Library of Medicine (NLM).

While the simplest analyses involve the quantification of seasonal burden of disease within a population, more complex studies involve the integration of several national datasets to learn about global transmission patterns of virus and disease.

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Publication: Disease Mortality Sub-Saharan Africa

Publication: Disease Mortality Sub-Saharan Africa: Second Edition"

This edition represents the dramatic advancement in knowledge gained--since the first edition was published in 1991.

New methods for estimating the incidence of several diseases, including tuberculosis, maternal mortality and chronic diseases have improved the reliability of health statistics.

Additionally, verbal autopsy studies have linked with demographic surveillance sites--adding to our knowledge of changes in the cause-of-death composition in several countries.

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A geographical map of Africa showing the ecological break that defines the Sub-Saharan Area

Letter From the Director

Dr. Roger I. Glass

The paper, "Syphilis in China: results of a national surveillance programme," featured in this issue of GHM (page 3), is particularly interesting because the control and elimination of syphilis was one of the great advances in China.

During the first half of the 20th century, China experienced one of the biggest syphilis epidemics in human history.

In 1954, the Central Institute of Dermatology and Venereology was established as a branch of the Chinese Academy of Medical Sciences and Peking Union Medical College. The organization played a central role in the national eradication of syphilis and other STDS in the early 1960s, through collective efforts of international experts, including the late Dr. George Hatem, a University of North Carolina graduate.

The Chinese government introduced mass screening, provided free treatment to infected individuals and closed brothels. However, substantial changes in Chinese society have been followed by a resurgent of epidemic of sexually transmitted diseases. These changes led to the establishment of the Chinese National Center for STD Control (NCSTD) (the former The Central Institute of Dermatology and Venereology) in 1986, this was followed by the launch of a national STD surveillance system by the Ministry of Health in 1987.

NCSTD is an organization with a history as rich and inspiring as modern China itself. NCSTD has extensive experience with international collaboration and multi-disciplinary research, and is a World Health Organization (WHO) Collaborating Center for the Prevention and Control of Sexually Transmitted Infections. NCSTD receives research funding from the NIH, WHO and many other international organizations.

The Fogarty Ellison Fellowship program is located at the NCSTD, in Nanjing, Jiangsu Province, near Shanghai. The co-sponsor of the Fogarty Ellison Fellowship in China is the University of North Carolina at Chapel Hill (UNC) Center for Infectious Disease. Dr. Myron Cohen is the director of the center.

Sporadic reports provided clues to the magnitude of the spread of syphilis, but a national surveillance effort was needed to provide data for planning and intervention. Cohen, who has worked in China since 1979, designed and planned the research along with co-author Dr. Xiang-Sheng Chen of the NCSTD. In their paper, "Syphilis in China: results of a national surveillance programme," the authors suggest that the worsening syphilis epidemic is the result of changing sexual practices, inadequate access of high risk populations to healthcare and poor quality and prohibitive cost of services.

China has once before shown that the control of syphilis is possible—the authors suggest the need for a new national campaign of affordable syphilis screening and treatment.

Upcoming Program Announcements and Requests for Applications

Program	Contact	Receipt Date	Eligibility
Brain Disorders in the Developing World (BRAIN)	Kathleen Michels, PhD michelsk@mail.nih.gov	Non-AIDS: May 16 AIDS-related: August 23	U.S. and foreign institutions; at least 2 investigators (1 from institution in high-income country and 1 from institution in low- to middle-income country) must collaborate on application as PI & Co-Investigator; PI may be from low- to middle-income country or from U.S. or other high-income country institution.
Fogarty International Research Collaboration Award—Basic Biomedical (FIRCA-BB)	Kathleen Michels, PhD michelsk@mail.nih.gov	May 21	PI of U.S. based NIH-sponsored research project grant that will be active for at least 1 year beyond submission date of application, in collaboration with partner institutions in low- to middle-income countries.
FIC/Ellison Clinical Research Training Fellowship (ELLISON)	Aron Primack, MD primacka@mail.nih.gov	July through December	Students at U.S. medical, osteopathic, dental and nursing schools who completed basic science courses and 1 year of clinical clerkship; students in doctoral public health programs who completed coursework and passed qualifying exams prior to beginning of fellowship.
Aids International Training and Research Program (AITRP)	Jeanne McDermott, PhD mcdermoj@mail.nih.gov	December 21	U.S. (or pre-approved non- U.S.) nonprofit, public or private institutions with HIV/AIDS and HIV related research collaborations with low- to middle-income country institutions.

Prevention of Transmission of HIV-1 from Mother to Child

"Response to Antiretroviral Therapy after a Single, Peripartum Dose of Nevirapine"

Single-dose nevirapine (sd-NVP) during labor is often used in resource-poor settings to prevent maternal transmission of HIV to infants. However, sd-NVP can select for drug-resistant HIV, and many have wondered whether this treatment might compromise subsequent responses to NVP-based antiretroviral therapy (ART) in women or their infants.

Investigators have studied the response to NVP-based ART among 218 women and 30 infants in Botswana who had previously received sd-NVP or placebo during labor (the women) or soon after delivery (the infants). The women had also received zidovudine from 34 weeks' gestation through delivery.

By 6 months after ART initiation, 18% of the women who had received sd-NVP showed virologic failure, compared with only 5% of those who had received placebo (P=0.002). This difference was seen only in women who initiated ART <6 months after delivery (virologic failure rates, 42% among NVP recipients vs. 0% among placebo recipients).

Among the 158 women who initiated ART 6 months postpartum, sd-NVP and placebo recipients had similar virologic failure rates at 6, 12, and 24 months. (Of note, HIV RNA levels were available at 24 months for only 32% of the patients in this group.) Finally, infants who received sd-NVP had much higher virologic failure rates by 6 months after initiation of NVP-based ART than did those who received placebo (77% vs. 9%; P<0.001).

In conclusion, single-dose nevirapine given to prevent mother-to-child HIV transmission adversely affects virologic response to NVP-based ART in women who initiate therapy <6 months postpartum and in infants. Protease inhibitor–based therapy should be considered for these groups. Among women who initiated NVP-based ART 6 months postpartum, sd-NVP and placebo recipients had similar virologic response rates, but longer follow-up is necessary to ensure that no differences emerge.

The study was conducted by the Division of Infectious Diseases, Brigham and Women's Hospital; the Departments of Immunology and Infectious Diseases and Biostatistics, Harvard School of Public Health and the Division of Infectious Diseases; Beth Israel Deaconess Medical and the Harvard School of Public Health AIDS Initiative Partnership for HIV Research; and the Botswana Ministry of Health.

Shahin Lockman, Roger L. Shapiro, Laura M. Smeaton, Carolyn Wester, Ibou Thior, Lisa Stevens, Fatima Chand, Joseph Makhema, Claire Moffat, Aida Asmelash, Patrick Ndase, Peter Arimi, Erik van Widenfelt, Loeto Mazhani, Vladimir Novitsky, Stephen Lagakos and Max Essex. *The New England Journal of Medicine,* January 2007.

Trainees from the Harvard AITRP were involved in this study; to learn more, please visit: http://www.fic.nih.gov/programs/training_grants/aitrp/index.htm

Resurgent: Syphilis in China

"Syphilis in China: Results of a National Surveillance Programme"

The resurgence and spread in China of syphilis, an infection eliminated there from 1960 to 1980, represents a rapidly increasing epidemic, according to authors of a new report documenting rising infection rates.

"Syphilis has returned to China…the data demonstrates a syphilis epidemic of such scope and magnitude that it will require terrific effort to intervene," said Dr. Myron Cohen, Director of the Center for Infectious Diseases at the University of North Carolina at Chapel Hill School of Medicine.

Dr. Cohen and co-authors from China collected and assessed data from China's national sexually transmitted disease (STD) surveillance system and sentinel site network.

The total incidence of syphilis in all of China's counties increased from less than 0.2 cases per 100,000 people in 1993 to 6.5 cases per 100,000 in 1999, the study shows. Of the three categories of disease--primary, secondary and tertiary--the first two represented 5.7 cases per 100,000 people in 2005. This latter incidence is substantially higher than in most developed countries, including the U.S., which reported 2.7 cases of primary and secondary syphilis in 2004, the researchers note.

The results appear in the January 13, 2007 issue of the journal *Lancet*. The research was supported by the Fogarty Ellison Fellowship and the UNC Center for AIDS Research.

Also alarming is the rate of congenital syphilis, Cohen said, which has increased from 0.01 cases per 100,000 live births in 1991 to19.68 cases in 2005--an average yearly rise of 71.9 percent. Congenital syphilis occurs when a pregnant woman with syphilis passes the infection to her baby in the womb. Many cases result in miscarriage or stillbirth, and surviving babies may have serious problems of the brain, liver and other organs.

The study authors link the rise in syphilis infection rates to economic reforms and globalization in China. The virtual absence of syphilis in China for 20 years means the general population of young, sexually active individuals has no natural immunity to the disease, according to the authors.

"This report helps to demonstrate the openness with which China is trying to approach epidemics of infectious diseases. The data we now have provides important clues as to where the authorities in China should put their resources," Cohen said.

Chen ZQ, Zhang GC, Gong XD, Lin C, Gao X, Liang GJ, Yue XL, Chen XS, Cohen MS. *The Lancet Neurology*, Vol. 369, Issue 9556, January 2007, Pages 132-138.

Multinational Influenza Seasonal Mortality Study

Continued from page 1

The purpose of MISMS is first and foremost scientific, novel findings have contributed to the way we think about the spread of influenza and have challenged the historical vaccination efforts leading to changes in public health practices.

MISMS has four specific aims:

⇒Describe synchrony in seasonal variations of various causes of mortality associated with influenza by state, country and region.

⇒Describe long-term temporal trends and inter-annual variations in influenza mortality patterns, both within and amongst countries, and their association with changes in circulating subtypes of influenza virus, antigenic characteristics, population factors and vaccine coverage.

⇒Explore the seasonal patterns and burden of influenza mortality in tropical countries and understand the global circulation of influenza viruses—to achieve this goal, new methods for estimating mortality impact in tropical countries need to be developed.

⇒Develop a world map of influenza morality burden and seasonal patterns to facilitate and broaden collaborations.

To facilitate and broaden the collaborations, the NIH group takes its team of investigators on the road. Through direct support from the DHHS Secretary's office, part of the MISMS team will present findings at three regional meetings and conduct workshops to extend their efforts.

These workshop meetings will occur this year in South America, East Asia and Canada, at the global influenza meetings, and actively engage epidemiologists, computational biologists and public health officials from those regions in collaborative research projects.

The MISMS Buenos Aires, Argentina, meeting, held on February 5-9, 2007, is featured in this issue of GHM (page 14).

Influenza Publications Resulting from the MISMS Collaboration with FIC, DIEPS

Disease burden studies in the tropics and temperate climates

Seasonal Patterns of Influenza in Brazil: traveling wave from the Amazon to the Sub-Tropics. 2006, Am J Epidemiol.

Mortality due to influenza in the United States--an annualized regression approach using multiple-cause mortality data. *Am J Epidemiol.* 2006 Jan 15;163(2):181-7.

Influenza-related mortality in the Italian elderly: No decline associated with increasing vaccination coverage. Vaccine. 2006 Oct 30;24(42-43):6468-75.

Influenza in Tropical Regions. *Plos Med.* March 2006. 3:4:e89.

US flu mortality estimates are based on solid science. 2006 *Bmj* 332(7534): 177-8.

Assessing influenza-related mortality: Comment on Zucs et al. *Emerg. Themes Epidemiol.*, 2:7, 2005.

Dynamical resonance can account for seasonality of influenza epidemics. Proc Natl. Acad. Sci. USA, 101:16915–16916, 2004.

Influenza and the winter increase in mortality in the United States, 1959-1999. *Am J Epidemiol.* 2004 Sep 1;160(5):492-502.

Association of influenza epidemics with global climate variability 2004. Eur J Epidemiol 19(11): 1055-9.

Estimating deaths due to influenza and respiratory syncytial virus. JAMA. 2003 May 21;289(19):2499-500.

Transmission dynamics of influenza virus and disease

Transmissibility and mortality impact of epidemic and pandemic influenza: Comparison of the deadly 1951 epidemic with surrounding seasons. Vaccine, 2006 Jun 9.

1951 influenza epidemic, England and Wales, Canada and the United States. Emerg Infect Dis 2006 Apr;12(4):661-8.

Synchrony, waves, and spatial hierarchies in the spread of influenza. Science Apr 21;312(5772):447-51. Epub 2006 Mar 30.

Air travel and the spread of influenza: Important Caveats. PLos Med Nov 2006;3(11):e503.

Risk factors of influenza transmission in households. *Br J Gen Pract* 2004;54(506): 684-9.

Correlations over time and space of influenza epidemics in the USA, France and Australia: 1972-97. *Emerging Infectious Diseases. Emerg Infect Dis* 2004;10 (1): 32-9.

A Bayesian MCMC approach to study transmission of influenza: application to household longitudinal data. *Stat Med* 2004; 23(22): 3469-87.

Prediction of the spread of influenza epidemics by the method of analogues. *American Journal of Epidemiology* 2003. 158:10; 996-1006.

Vaccine impact and control studies on various target populations including indirect effects

Vaccinating to protect a vulnerable subpopulation. PLoS Med, [in press]

Key strategies for reducing spread of avian influenza among commercial poultry holdings: lessons for transmission to humans. Proceedings of the Royal Society of London, B, Biological Sciences. DOI: 10.1098/rspb.2006.3609.

Antibody response to influenza vaccination in the elderly: A quantitative review. *Vaccine.* 2006 Feb 20;24(8):1159-69. Epub 2005 Sep 19.

Glezen WP and Simonsen L. Commentary: Benefits of influenza vaccine in US elderly – new studies raise questions. Intl J Epi 2006 Apr;35(2):352-3.

Impact of Influenza Vaccination on Seasonal Mortality in the US Elderly Population. *Archives of Internal Medicine* 2005;165(3):265-72.

Researchers defend influenza vaccine study.*Infectious Diseases News,* Aug 2005 (Guest Editorial)

The Japanese program of vaccination of schoolchildren against influenza:implications for control of the disease. *Semin Pediatr Infect Dis.* 2002 Apr;13(2):104-11.

Influenza virus evolutionary patterns

Rapid Global Spread of a Clonal Lineage of Adamantane-Resistant Human Influenza A/H3N2 Viruses. [in review]

Epochal evolution shapes the phylodynamics of interpandemic influenza A (H3N2) in humans. *Science.* 2006 Dec 22;314(5807):1898-903

Stochastic Processes are Key Determinants of Short-Term Evolution in Influenza A virus. PloS Path 2006;2(12):epub125

Comment on "Large Scale Sequence Analysis of Avian Influenza Isolates". *Science* 15 Sept 2006; 313:1573b.

Avian influenza virus exhibits rapid evolutionary dynamics. *Molecular Biology and Evolution* 2006 Dec;23(12):2336-41.

Host species barriers to influenza virus infections. *Science* 2006 312: 394-397.

Long Intervals of Stasis Punctuated by Bursts of Positive Selection in the Seasonal Evolution of Influenza A Virus. Biology Direct, October 26, 2006.

Pandemic influenza and other topics

Preparing for the next influenza pandemic: lessons from multinational data. *Pediatr Infect Dis J.* 2005 Nov. 24(11 Suppl):S228-31.

"Multinational impact of the 1968 Hong Kong influenza pandemic: evidence for a smoldering pandemic." *J Infect Dis.* 2005; 192(2): 233-48.

Influenza vaccination in elderly people. Lancet. 2005 Dec 17;366(9503):2086.

In: Pandemic influenza and mortality: past evidence and projections for the future. In: Institute of Medicine's Pandemic Influenza: Assessing Capabilities for Prevention and Response. Forum on Microbial Threats series, (2004). 1-26-46.

Epidemiological evidence of an early wave of the 1918 influenza pandemic in New York City. Proc Natl Acad Sci U S A. 2005 Aug 2;102(31):11059-63.

Stigma: Epilepsy in Zambia

"The Social and Economic Impact of Epilepsy in Zambia: a Cross-Sectional Study"

The FIC "Stigma and Global Health" research award program was created to stimulate interdisciplinary, investigator-initiated research on the role stigma plays in health, and on interventions to prevent—or mitigate—its negative effects on the health and welfare of individuals, groups and societies world-wide.

Dr. Gretchen Birbeck, Michigan State University, in collaboration with colleagues Dr. Alan Haworth, Dr. Masharip Atadzhanov and Dr. Elwyn Chomba, University of Zambia School of Medicine and Mr. Eddie Mbewe, Chainama Hills Hospital are spearheading research to improve the lives of children and adults with epilepsy.

The team has been conducting research into epilepsy-associated stigma, under the program, since receiving an R21 planning grant—awarded by NINDS and co-funded by FIC, in 2003.

Since the award, the research team has published three papers on epilepsy and behavior that examine the attitudes, beliefs and practices of health-care workers, clerics and teachers towards people with epilepsy.

"The Zambian colleagues are proud to work with Dr Birbeck who is leading our team's work on epilepsy and

Dr. Gretchen Birbeck with young friends Ester and Loreen, Zambia

stigma—an often neglected and ill understood area in which these lives can be improved," said Dr. Elwyn Chomba.

"Epilepsy remains the most common chronic cerebral disease among adult and pediatric neurological patients in Zambia. The study highlights not only the social and economic impact of epilepsy in Zambia, it sheds light on the major problems encountered by both patients with epilepsy and health professionals. The role of Dr. Birbeck in this study is not possible to overestimated," Dr. Alan Haworth stated.

Sign outside of the Chikankata Epilepsy Clinic

In the January 2007 issue of *The Lancet Neurology*, Birbeck and her collaborators described some of the social and economic effects associate with epilepsy in Africa. The team investigated the social and economic consequences of epilepsy from the perspective of diverse groups—its aim to elucidate the social, psychological and economic context necessary to facilitate development of interventions that will improve the lives of people living with epilepsy in the region.

Their study shows people living with epilepsy in Zambia are likely to be poorer and of lower social status than people living with other non-stigmatizing chronic disorders. Having the disease meant that people were less likely to marry or have had formal education. Their housing was poorer and they had less access to water, electricity and other basic resources than their peers—suboptimum housing exposed these individuals to burns and drowning during a seizure.

People with epilepsy reported higher rates of physical abuse from members of their households. Women with epilepsy were significantly more likely to have been raped. Rape rates were 20% for women with epilepsy vs. 3% of the control group (p=0.004). The prevalence of HIV in Zambia would suggest that women with epilepsy are at an increased risk of contracting this and other sexually transmitted infections.

Birbeck G, Chomba E, Atadzhanov M, Mbewe E, Haworth A. *Lancet Neurology*, Vol. 6, Issue 1, January 2007, Pages 39-44.

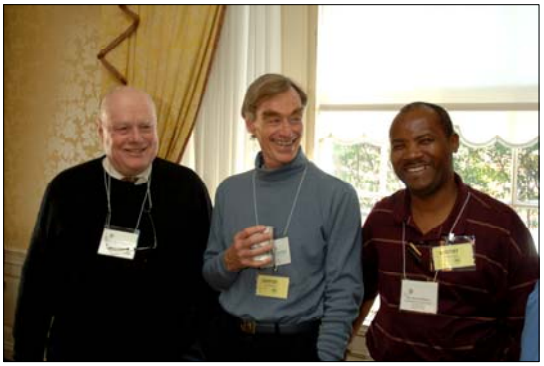
For more information on Stigma and Global Health Research Program, please visit:
http://www.fic.nih.gov/programs/research_grants/stigma/index.htm

"Aids International Training and Research Program (AITRP)"

The AITRP began in 1988, as one of the first of a new generation of research training programs sponsored by the FIC. These programs provide training for scientists from institutions in low- and middle-income countries to strengthen HIV-related research and public health capacities at their institutions. Co-sponsors of the program are: Fogarty International Center (FIC); National Cancer Institute (NCI); National Institute of Allergy and Infectious Diseases (NIAID); National Institute of Dental and Craniofacial Research (NIDCR); National Institute of Mental Health (NIMH); National Institute on Drug Abuse (NIDA); Office of AIDS Research (OAR); and Office of Research on Women's Health (ORWH).

On February 7, 2007, an AITRP Networking Meeting was held at FIC's Stone House. Participants discussed program management, development of expertise and the importance of collaboration and capacity building. Photographs of AITRP attendees—and quotes on their AITRP programs—follow.

To learn more about the AITRP, please visit: http://www.fic.nih.gov/programs/training_grants/aitrp/index.htm



**Dr. Palmer R. Beasley, Texas Medical Center,
Dr. Roger Detels, University of California,
Dr. Tendai M'soka, University of Nebraska
(Pictured Left to Right)**

**Dr. Carlos del Rio, Emory University,
Dr. Ken Bridbord, DITR, FIC,
Dr. Jack DeHovitz, State University of NY, Downstate
(Pictured Left to Right)**

"AITRP is the best program in global health that the United States has developed in over 50 years of global health research."

Dr. Palmer R. Beasley
Texas Medical Center

"AITRP has given us the flexibility to respond rapidly and appropriately to the dramatically evolving course of HIV epidemic in Central and Eastern Europe."

Dr. Jack A. DeHovitz
State of NY, Downstate

"The AITRP has had a profound impact on the fight against HIV/AIDS in Asia. Virtually all the national HIV/AIDS programs in Southeast Asia and China have been directed either currently or in the past by graduates of the AITRP program. Graduates have also assumed key public health posts in the Ministries of Health, Research Institutions and Academic Institutions.

The former director of the AIDS program in the World Health Organization and the former Minister of Health for Taiwan are graduates of the AITRP program. The former President of the Asia Pacific AIDS Society is also a graduate of the AITRP program. Graduates of the AITRP program are also directing training programs for the Ministries of Health. In summary, the AITRP program has had a profound impact on HIV/AIDS and public health in Asia, perhaps the most profound impact of any training program mounted in the 20th and early 21st centuries."

Dr. Roger Detels
University of California Los Angeles

**Dr. Jeanne McDermott, DITR, FIC,
Dr. Vinayaka Prasad,**

"The AITRP program allows me to assist developing country scientists (India, Rwanda and Bangladesh) to achieve at every possible level—be it a PhD thesis of a graduate student doing research on HIV/AIDS, a post-doctoral scientist aspiring to learn new technologies to advance her/his research, a new assistant professor or a clinician trying to break ground by establishing a research program.

It has also allowed numerous U.S. colleagues to truly widen their research interests to include questions about epidemics outside the US. Frankly, the AITRP has become indispensable to several colleagues around me. "

Dr. Vinavaka Prasad,
Albert Einstein College of Medicine

**Dr. William Battner, University of Maryland,
Dr. Myron Cohen, University of NC
(Pictured Left to Right)**

"The AITRP Program serves as the 'anchor' for all of our research and clinical work in Malawi, and at our research other sites as well. The ultimate success and sustainability of our efforts depend entirely on well-trained in-country investigators on the ground.

These collaborators are the people who actually identify the most critical problems, who provide study designs that are feasible in the local environment and (most important) who actually do the work! In Malawi, AITRP trainees lead both the laboratory and clinical programs and provide the infrastructure that has lead to important discoveries in medicine and public health."

Dr. Myron Cohen
University of North Carolina

"AITRP is the seed from which all our projects grew in Zambia. Returning trainees were the backbone of project after project, a phenomenon that continues to this day."

**Dr. Sten H. Vermund,
Vanderbilt University School of Medicine**

"Because of our Fogarty AITRP grant, we have had the distinct privilege of helping train and support an outstanding cadre of AIDS researchers from partner countries including Uganda, Zimbabwe, Ivory Coast, Brazil, Peru and India, among others.

Following the completion of their training, these individuals have assumed key leadership positions in academic institutions, national AIDS control programs, Ministries of Health, and international organizations such as WHO, UNAIDS and the Bill and Melinda Gates Foundation. Watching them develop into leaders in the global fight against AIDS will always rank among the most satisfying outcomes of my over 25 years of working in academia and public health. Collectively, they are a truly astonishing resource that simply would never have come into being without the AITRP program and its far-sighted creators."

Dr. Art Reingold
University of California at Berkley

Publication: Disease and Mortality Sub-Saharan Africa

Continued from page 1

Disease and Mortality in Sub-Saharan Africa: Second Edition"

Increased funding for health from governments, multilateral and bilateral donors, as well as new public-private partnerships and foundations have become available for assisting African countries to deliver more effective health interventions.

The Millennium Development Goals, described in the Millennium Declaration signed by 189 countries in 2000, have focused the attention of the world on achieving a clear set of goals—several of which are directly concerned with improving health outcomes—to be achieved by 2015.

To date, Sub-Saharan Africa is not on track to reach any of the public health Millennium Development goals by 2015. The sobering reality is that life expectancy has decreased by almost five years for the continent as a whole since the 1991 publication.

As this volume documents, children under five are dying at high rates from causes for which effective interventions exist. Adult mortality from infectious diseases have also risen to extraordinary levels.

HIV/AIDS has spread from eastern Africa to the rest of the continent, affecting southern African countries the most. Malaria mortality of children increased during the 1990s, and TB has reemerged as a leading cause of death for adults, largely due to the spread of AIDS.

The authors state it is important to recognize that not all trends have been negative. The prevalence of HIV/AIDS has significantly decreased in several African countries, including Uganda, one of the worst-affected countries at the time of the publication of the first edition. Measles mortality has been virtually eliminated in the countries of southern Africa in the past decade. Enormous strides continued to be made in the control of onchocerciasis during the 1990s. The continued improvement of disease surveillance and other regularly published health information remains as important a priority for African health systems as it was for the first edition.

This publication consists of the contributions of 70 authors, coordinated by a group of editors at the World Bank (Florence Baingana, Eduard Bos, and Khama Rogo), the NIH (Karen Hofman and Dean Jamison), the Global Fund to Fight AIDS, Tuberculosis, and Malaria (Richard Feachem) and the South African Medical Research Council (Malegapuru Makgoba). Management of the publication was carried out jointly at the World Bank, and for a subset of chapters, at the South African Medical Research Council.

FIC Attends AITRP Alumni Reunion in South Africa

Dr. Roger I. Glass, Dr. Ken Bridbord, Dr. Jeanne McDermott and Ms. Sonia Madera, of FIC, traveled to South Africa, in February 2007, to attended a reunion meeting at University of KwaKulu-Natal.

The meeting was entitled, "Building a Sustainable Science Base as we Battle the HIV and TB Epidemics in South Africa: Perspectives from the Columbia University-Southern Africa (CU-SA) Fogarty AITRP Training Program: 1992-2006," where Dr. Glass presented a talk entitled: "Objectives of Reunion Global Health Challenges."

Dr. Roger I. Glass, presenting at the CU-SA AITRP Reunion University of KwaKulu-Natal

The reunion was attended by 54 former Fogarty Trainees, among others. Building sustainable HIV and TB research capacity, was the theme of the meeting. The gathering offered researchers the opportunity to reflect on lessons learned over the past 13 years.

The vision of the CU-SA Fogarty AITRP is to build an independent and sustainable science base in South Africa and nehoboring countries, capable of controlling regional HIV and TB epidemics, while contributing to the knowledge of these diseases. CU-SA Fogarty AITRP has evolved to meet the demands of these expanding epidemics--and to the complexities of providing treatment --within a context of supporting prevention.

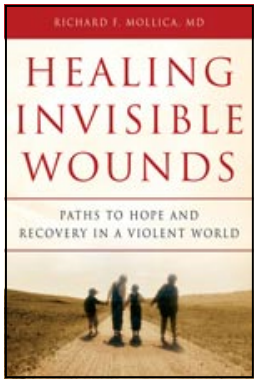
While in South Africa, the FIC group visited an urban TB clinic, the Durban Chest Clinic, and a rural HIV/primary health care clinic, the Vilundlela Clinic.

Rev. Sithole, Induna Zuma, Gethwana Mahlase, Rev. Nkhize (Front row, Pictured Left to Right) Dr. Roger I. Glass (Back row)

In Vilundlela, 45% of the population is HIV infected. The land for the Vilundlela's clinic site was donated by a tribal chief. The chief's daughter, Gethwana Mahlase, is a nurse at the clinic.

AITRP alumni conduct research, in addition to providing health care, for both the Durban Chest Clinic and the Vilundlela Clinic.

Review of New Publication: Treating Survivors of Traumatic Events



Dr. Richard F. Mollica's Book on Treating Victims of Trauma

"Healing Invisible Wounds"

Paths to Hope and Recovery in a Violent World

People are subject to terrible violence--natural and manmade. It has happened in India, Iraq, Rwanda, Bosnia, Cambodia and the Ivory Coast. It has happened in the U.S. cities of New Orleans and New York.

After war criminals are brought to justice, levees repaired and memorials and monuments are built, the question remains—can people heal, and if so, how?

In his recently published book, Dr. Richard F. Mollica, Director of the Harvard Program in Refugee Trauma (HPRT)—a passionate, humanitarian voice of hope in a sometimes cruel and violent world—tells victims of traumatic events that they can do more than survive—they can find strength and healing no matter what they have experienced.

Utilizing his personal and clinical experience in treating trauma victims, Dr. Mollica has spent the more than thirty years caring for people who have experienced human aggression on a societal scale, as refugees, victims of torture or terrorism and as survivors of war.

He draws from hundreds of interviews and years of research and counseling experience to show a new way of helping people overcome their pain. His research has proven that survivors of traumatic events have an inherent ability to heal themselves and that the lessons learned from their "trauma stories" can teach us all how to better cope with everyday problems.

His experiences reveal a new way of thinking about human aggression and the healing of the physical and emotional damage caused by violence. Major insights—which Dr. Mollica calls *scientific epiphanies* or *revelations*—occurred as he interacted with his patients. He investigated these conclusions scientifically and--when they were proven valid—integrated them into his clinical care. These revelations form the basis for the healing practices advocated in his book.

"Suffering is a universal human experience, the modern world still does not know how to speak about and understand the terrible experiences that human beings inflict on each other every day," writes Dr. Mollica, "Because of the horror and disbelief associated with human-on-human violence, it is easy to slide into a cynical attitude that nothing can be done to prevent this violence or to recover from it. One reason for this is that the major harms caused by human aggression are invisible wounds. While physical scars can be identified and accounted for by medical science, psychological, spiritual and existential injuries remain hidden."

However, mental health practitioners have begun to use more innovative methods that acknowledge the importance of self-healing in trauma patients. Effective treatment approach is one that takes into consideration the patient's body, mind and spirit.

Torture and other forms of extreme violence have been scientifically revealed to affect survivors' physical health, their mental health status and their psychological well-being. Survivors are existentially concerned with the unfairness and injustice of their traumatic experience.

In addition, most cultures do not draw a clear line between human suffering that affects the survivor's body, mind and the spiritual and/or existential state. A comprehensive treatment plan that can be used to monitor and guide treatment, in each of the areas demonstrated, is critical in producing good clinical outcomes.

Scientific evidence highlights the importance of addressing each domain—trauma story, psychological states, emotional states (affect), physical illnesses, concrete social services, therapeutic activities and therapist-patient relationship—in order to reduce psychiatric morbidity and promote recovery. If any of these elements are neglected treatment will be only partially successful.

"Healing Invisible Wounds," is published by Harcourt Trade Publishing, December 2006.

Dr. Richard F. Mollica is a Framework Principal Investigator for Massachusetts General Hospital (MGH). Their Framework Program is entitled: "Global Mental Health: Trauma and Recovery."

The Harvard Program in Refugee Trauma (HPRT) at MGH estimates that approximately one billion persons worldwide have had their lives disrupted by violence and disaster.

They have developed a Master's Degree program for policy makers, scientists and clinicians caring for and clinically treating the health and mental health sequelae of traumatized populations in diverse geographical and global environments affected by man-made conflict and/or natural disasters (e.g. Tsunami disaster of December 2004). More than 47 countries today have been impacted by war, ethnic conflict and civilian violence.

To learn more about Framework, please visit: http://www.fic.nih.gov/programs/training_grants/framework/awards.htm

Poultry most likely to bring H5N1 to Americas

"Predicting the global spread of H5N1 avian influenza"

Poultry infected with H5N1 avian influenza pose the greatest risk of bringing the disease to the Americas, according to a new FIC supported study by scientists at the Consortium for Conservation Medicine (CCM), the Royal Society for the Protection of Birds and the Smithsonian Institution's National Zoo.

Avian H5N1 influenza is a subtype of influenza A that is found among poultry and occasionally transmitted to humans. Humans have little or no immunity against this strain of influenza. Infected persons exhibit respiratory symptoms and occasionally encephalitis. Health experts are predicting that the avian H5N1 influenza could be the next pandemic flu. The H5N1 virus has yet to evolve the capacity to move readily from human to human, but if this occurs a pandemic would be much more likely.

The first known human cases of avian influenza were reported in Thailand in 2004. Since then, the influenza has spread to humans in Thailand, Cambodia, Indonesia, Turkey and Iraq. Poultry trade and wild bird migration have both been implicated in movement of the virus between flocks.

According to the authors of this study, once on this continent, the flu is likely to spread to migratory birds that will cross US borders—and the greatest risk will be birds from Central and South America.

The study, led by Marm Kilpatrick, Senior Research Scientist, CCM, recently published in "Proceedings of the National Academy of Sciences," employs a complex analytical method that compares the migratory routes of wild bird species thought to be the main reservoirs of avian flu and data on legal trade in poultry and wild birds with avian-flu gene sequences deposited in the public database, GenBank.

Plotting these pieces of data against each other allowed the researchers to hypothesize whether migratory birds, wild bird trade, or poultry were responsible for H5N1 influenza's past spread across the globe, as well as to model its possible future paths.

The researchers concluded that the combination of poultry trade and bird migrations allowed the virus to spread much farther than either would have allowed on its own.

The greatest threat to the continental United States will be the arrival of avian flu in Central and South America—followed by entry into the United States via migrating birds.

"Although the risk of H5N1 introduction into the mainland United States by any single pathway is relatively low, the risk of introduction by poultry to other countries in the Americas, particularly Canada, Mexico and Brazil, is substantial unless all imported poultry are tested for H5N1 or trade restrictions on imports from the old world are imposed," the report says.

Since April 2006, scientists from the Department of Interior and Agriculture have tested more than 21,000 samples from wild birds in the United States, primarily in Alaska, without finding any high-pathogenic avian flu. Scientists at the National Wildlife Health Center—which leads the US sampling effort but is also a coalition partner of the Consortium for Conservation Medicine—said the Kilpatrick et al. the study lacks enough data to persuade them to shift their efforts to the southern hemisphere. They cite a decision by the authors to exclude shorebirds from their analysis as potentially important.

Nevertheless, Leslie Dierauf, VMD, the center's director, who reviewed the paper a year ago when it was in draft form, said the analysis raises questions that are vital for successful avian flu prevention and control. Several other migratory bird surveillance projects and a variety of poultry testing efforts in Central American began this past summer with support from the FIC, the Centers for Disease Control, the National Institute of Allergy and Infectious Diseases (NIAID) and the Department of Agriculture.

"The CCM's recent findings for both avian flu and SARS illustrate the power of integrating field biology, geographical pattern analysis, molecular phylogenies and computational modeling such that each approach provides key to the others. Together these tools may yield powerful results that can help us turn infectious disease research from a reactive into a predictive science," said Joshua Rosenthal, Program Officer for Ecology of Infectious Diseases, DITR, FIC.

Other funders of the CCM study include the NIAID and several private foundations.

Marm Kilpatrick, Aleksei A. Chmura , David W. Gibbons, Robert C. Fleischer, Peter P. Marra, and Peter Daszak. *PNAS,* December 2006.

Marm Kilpatrick

FIC Focus: Nalini Anand's work on Public-Private Partnerships

Public-Private Partnerships (PPPs) play an increasingly important role in NIH's efforts to support and conduct medical research to improve human health. PPPs build on shared goals and mandates of the partners and leverage knowledge, skill and resources of each partner to maximize the benefit of the NIH's research investments.

Given the expanding and diverse set of players that have emerged in global health, and increased investments by the public and private sectors over the last several years, FIC is well-positioned to explore new opportunities for partnerships.

These alliances enhance FIC's efforts to strengthen research capacity in low- and middle-income countries and advance global health research in the U.S. and abroad.

Potential partners include a wide range of organizations—advocacy groups, foundations, industry and non-governmental organizations. Partnerships take many forms and range widely in size and scope. They must also be transparent, fair and compliant with Federal laws and NIH policy—and importantly—fit squarely within the mission and priorities of FIC.

"Collaboration is at the core of FIC's research and research training programs," said Ms. Anand, J.D., Science and Legal Policy Analyst, DASPA, "FIC and its stakeholders understand the value and potential of partnerships in promoting global health."

Indeed, FIC programs already engage other NIH Institutes and Centers, government agencies and private sector organizations.

Ms. Anand works with FIC staff to identify fertile areas for partnerships and to develop strategies for implementing such partnerships. She also participates on the trans-NIH PPP Coordination Committee, which is run by the NIH Program on Public-Private Partnerships

Through her work on the Committee, she keeps abreast of cross-cutting issues relating to PPPs at the NIH, learns about PPPs at other NIH Institutes and Centers and shares Fogarty's experiences related to partnerships in an international context.

Pilot Bibliometric Analysis: Non-Communicable Disease Research

"Reporting of non-communicable disease research in low– and middle-income countries: a pilot bibliometric analysis"

The paper identifies the relative amount of research devoted to non-communicable disease (NCD) in low– and middle–countries (LMICs).

Dr. Karen Hofman, Director, Division of Advanced Studies and Policy Analysis, (DASPA), notes, "FIC proceeds with the idea of the importance of funding research and training in areas that are non-infectious.

This report provides an analysis of how much is currently being published and suggests that even in areas such as Sub-Saharan Africa—with high burden on infections—potential new funding can build on the capacity that already exists in non-communicable diseases."

Although much attention has been paid to infectious disease in LMICs, due to the significant morbidity and mortality arising from these diseases in endemic areas, the burden of non-communicable, chronic diseases — cardiovascular disease, hypertension, obesity and diabetes— is rising, accounting for approximately 50% of deaths in high-mortality regions of the world.

A bibliometric analysis of a subset of journals—published in LMICs was performed. An examination of these scientific publications determined research priorities and provided an estimate of research taking place.

Despite the growing burden of NCD in LMICs, research agencies and donors have largely ignored funding in this area. Lifestyle risk factors have lead in a rise of unhealthy behaviors—ignoring NCD may further compromise health care systems that are already weak.

Additionally, these diseases diminish worker productivity—which may have a long-term negative effect on global economy.

The paper concludes greater attention should be paid to the conduct and support of such research in LMICs, which will benefit these countries and may yield clues to lower-cost solutions to the burden of these diseases worldwide.

Karen Hofman, MD, Director DASPA, FIC; Andrea Ryce, MLIS, Associate Fellow, National Library of Medicine; Wendy Prudhomme, PhD, Research Fellow, Division of Epidemiology and Population Studies, FIC; and Sheldon Kotzin, MLS, Chief, National Library of Medicine. *J Med Lib Assoc* 94(4). October 2006.

FIC Funded Case Study: Research Ethics Committees in Africa

" Research Ethics Committees in Africa Report Inadequate Funding, Staffing and Training"

The study examined research ethics committees in the Democratic Republic of the Congo, Ghana, Kenya, Nigeria, South Africa, Sudan, Tanzania, Zambia and Zimbabwe.

Principal investigator Nancy Kass, ScD, states "research ethics committees are designed to be third-party, independent review bodies to protect the welfare of research participants. But how are they set up in Africa? How do they operate? Some committees are hesitant to be too critical of studies, because in some African communities, a clinical study may bring jobs, medicines, or prestige."

"Our case study closely examined how these committees function in Africa. The results can now help us better understand some very real, on-the-ground challenges they face," said Adnan A. Hyder, MD, MPH, PhD.

The study included the active collaboration of nearly a dozen African researchers and the history and operational structure of 12 research ethics committees, in nine African countries, were examined. Findings include:

⇒Research ethics committees in Africa face a number of challenges including inadequate funding, staffing and training. One-quarter of the research ethics committees report that no operating budget is in place.

⇒Lack of expertise in how to consider ethical aspects of proposed research was found. This led to a disproportionate focus on the scientific and financial aspects of the research being considered.

⇒The number of protocols reviewed each year varied widely—three research ethics committees reviewed eight to 12 protocols per year, three reviewed 30-50, five reviewed 100-250 and one reviewed 600 per year.

⇒Reported challenges include the tendency of a few research ethics committees to "rubber stamp" approvals in order to secure international funding.

⇒Two of the research ethics committees surveyed thought it was difficult to offer a truly independent assessment of proposed research knowing that greater funding for their own institutions was at stake.

The case study's authors say they were encouraged to learn that research ethics reviews, in some parts of Africa, has become routine.

National policies, across Africa, are needed to mandate the creation and monitoring of research ethics committees, the case study suggests.

"Research ethics committees are expensive, so some countries will not create them until they are told to do so," said Kass. "Until that happens, this report should help researchers working in Africa better understand the landscape of ethics review there..."

The case study was the result of collaboration with participants from the Johns Hopkins-Fogarty African Bioethics Training program, funded by FIC. The Johns Hopkins-Fogarty African Bioethics Training Program began in 2000.

Nancy Kass and Adnan Hyder direct the Johns Hopkins-Fogarty International Research Ethics Training Program for Africa. *PLOS Medicine*, January 2007, Volume 4, Issue 1.

Workshop in Zomba, Malawi

Attendees of Malawi Medical Journal Author/Review Workshop

The "Malawi Medical Journal, Author/Review Workshop" was held in Zomba, Malawi on November 13-15, 2006. The workshop is part of the National Library of Medicine (NLM), FIC partnership program in Sub-Saharan Africa.

There were 18 participants from Blantyre, Lilongwe and Zomba—mostly medical doctors.

The workshop was a mix of lecture, small group exercises and individual sessions. Participants were required to submit a manuscript prior to the workshop, which was reviewed in advance. Participants' abstracts were used in small group sessions to teach the fundamentals of peer review and abstract writing. Specific time was set aside for one-to-one sessions with each participant to review their manuscripts and discuss areas for improvement.

NIAID Honors Dr. Richard M. Krause

Dr. Richard K. Krause
NIAID Director 1975-1984

"A Lifetime of Infectious Disease Research, a Symposium in Honor of Richard M. Krause, M.D."

On February 23, 2007, the National Institute of Allergy and Infectious Diseases (NIAID), Division of Intramural Research held a mini-symposium honoring the work of Dr. Richard M. Krause, in the area of Streptococcal Infections and Immunity.

In addition to Dr. Anthony S. Fauci, Director of NIAID, speakers for the event included: Dr. Thomas. J. Kindt, Retired Director, Division of Intramural Research, NIAID, Dr. Vincent A. Fischetti, Head, Laboratory of Bacterial Pathogenesis, Rockefeller University, Dr. James M. Musser, Director, Center for Molecular and Translational Human, The Methodist Hospital Research Institute, Dr. David E. Briles, Professor, Department of Microbiology, University of Alabama at Birmingham and Dr. Frank R. DeLeo, Investigator, Laboratory of Human Bacterial Pathogenesis, DIR, NIAID.

Appointed the director of the National Institute of Allergy and Infectious Diseases (NIAID) in 1975, Dr. Krause was among the first to perceive 'the return of the microbes.' He guided the Institute through a period of growth to cope with the re-emergence of microbial diseases as health threats and to stimulate research on the complexity of the immune system.

The Institute was reorganized along programmatic lines and the Rocky Mountain Laboratory was restructured into independent laboratories. The Institute also led the way in recombinant DNA research and technology. Responding to the emergence of the AIDS epidemic in the early 1980s, Dr. Krause organized field studies in Haiti and Zaire in the search for the origins of the virus.

In July 1984, Dr. Krause retired from the U.S. Public Health Service and became Dean of Medicine at Emory University in Atlanta, Ga. In 1989, he returned to National Institutes of Health to become a senior scientific advisor at the FIC.

The event is available on videocast, please visit: http://videocast.nih.gov/

The Lancet Paper of Year: Two Nominations for DCPP

According to *The Lancet*, 2006 was a busy year for biomedical researchers, with over 700, 000 papers on PubMed. Their International Advisory Board (IAB) and in-house editors nominated 23 of their favorite papers—among these were two papers by the Disease Control Priorities Project (DCPP):

Laxminarayan, R, Mills A, Breman JG, et al. Advancement of Global Health: Key Messages from the Disease Control Priorities Project, Lancet 2006; 367L1193-208.

Lopez AD, Matters CD, Ezzati M, Jamison DT, Murray CJ. Global and regional burden of disease and risk factors, 20a: systematic analysis of population health data. Lancet 2006: 367:1747-57.

The DCPP—a science, economics and public health group consisting of Fogarty, NIH, World Bank, and the World Health Organization—publications outline a picture of the current and future state of global health.

For more information, to create and download a custom book or purchase a copy of the DCPP publications, please visit: http://www.dcp2.org/page/main/Home.html

The Honorable Paul Rogers Advises on the FIC Strategic Plan

The Honorable Paul G. Rogers and Dr. Roger I. Glass

The FIC Strategic Plan Advisory Group (SPAG) had the honor of being addressed by The Honorable Paul G. Rogers, Chair Emeritus, Research America, at their December 2006 meeting. The former U.S. Congressman from Florida, Rogers served as chair of the House Subcommittee on Health and the Environment, where he sponsored, or played a major role in enacting, major health and environmental legislation.

The purpose of the meeting was to seek opinion and guidance on the new FIC Strategic Plan. FIC thanks The Honorable Paul G. Rogers—and other medical health leaders including: Drs. Peter Hotez, Sten Vermund and Dick Guerrant, who were each designated Ambassadors, for the *Paul E. Rogers Society in Global Health,* for sharing their invaluable insights.

To learn more about the Honorable Paul G. Rogers and Research America, please visit:
http://www.researchamerica.org/pgrsociety/index.html#portrait

MISMS Meeting in Buenos Aires, Argentina

On February 5-9, 2007, MISMS held a meeting in Buenos Aires, Argentina. Representatives from Argentina, Bolivia, Brazil, Colombia, Mexico, Uruguay, Peru and the United States attended.

Presentations were given on the methodology used by the NIH and Centers for Disease Control and Prevention (CDC) to describe influenza epidemiology.

The other meeting topics included influenza genomics, vaccine issues and international surveillance activities.

MISMS Meeting Group, Buenos Aires, Argentina

The speakers included NIH, CDC, Department of Defense (DOD), and Pan-American Health Organization (PAHO) staff and regional scientists and public health officials.

Participants were actively engaged in the presentation portion of the meeting—debating a wide variety of influenza-related issues.

Dr. Nils Daulaire Addresses Fogarty Framework Meeting

FIC was fortunate to have Dr. Nils Daulaire speak at our Fogarty Framework Meeting in December 2006.

Dr. Daulaire is the President and CEO of the Global Health Council (GHC), the world's largest membership alliance dedicated to advancing policies and programs that improve health around the world. The Council, founded in 1972, has built a global coalition in more than 100 countries that promotes improvement and equity in health for all the world's citizens.

FIC thanks Dr. Daulaire for his interesting and informative talk.

For more information on Dr. Daulaire and the *Global Health Council*, please visit:
http://www.globalhealth.org/

Dr. Nils Daulaire and Dr. Roger I. Glass

Across the Center

Dr. James Herrington, Featured Speaker

Dr. James Herrington

Dr. James Herrington, Director, Division of International Relations, (DIR), FIC, participated with Dr. Rick Nader of the National Science Foundation at the 1st bi-annual grants conference co-hosted by Washington University and Southern Illinois University Edwardsville, held January 10-11, 2007, St. Louis, MS and Edwardsville, IL.

Drs. Herrington and Nader spoke on "The Global Challenge: Fostering and Leveraging International Collaboration."

Conference topics included updates on the latest funding trends from federal agencies and informative sessions for academic researchers on research policies, practices and opportunities.

Attendees composed of students, lecturers and professors had the opportunity to explore mechanisms to enhance the success of their individual and collaborative research projects by engaging with these representatives from the NIH and NSH, respectively.

FIC Welcomes New Staff

Dr. Xingzhu Lin will work both as a program officer in DITR, FIC, responsible for a portfolio of extramural projects related to behavioral and social sciences, and with DASPA, in the next phase of the DCPP activity and some related networking in Health Economics.

Xingzhu trained in medicine (MD), and public health (MPH) in China and obtained his PhD in Health Economics at the London School of Hygiene and Tropical Medicine. Prior to his arrival at FIC, he worked at as a Senior Scientist on International Health at Abt Associates Inc. for 6 years, at World Health Organization (WHO) for 2 years, and at the London School of Hygiene for 3 years doing his PhD research.

He has substantial experience with applications of diverse research skills and tools, including survey research, database management, statistical analysis, epidemiology, cost/cost-effectiveness/cost-benefit analysis, monitoring and evaluation to public health issues.

The public health issues he has worked on include HIV/AIDS, malaria, TB, reproductive/maternal health, immunization, health care reforms, health care financing, and human resources in health.

Mr. Thomas Mampilly recently joined DIR, FIC, as the International Program Officer for South Asia. Thomas' regional portfolio at DIR will include principally those countries located on the Indian subcontinent.

Thomas holds a Master of Public Health degree from Emory University in Atlanta, Georgia, and a double-major Bachelor Degree in Biological Sciences and India Studies from Indiana University in Bloomington, Indiana.

Since 2002, Thomas served as an International Health Officer in the Office of Global Health Affairs (OGHA), Office of the Secretary, U.S. Department of Health and Human Services (HHS). In his former position, he developed and coordinated policy and program management issues for HHS activities throughout South Asia and South East Asia, with a focus on bilateral cooperation with India.

Activities in his regional portfolio at OGHA touched on a wide variety of issues including polio eradication, HIV/AIDS, infectious diseases, environmental health, and public health education. In addition to regional responsibilities, Thomas supported multilateral environmental public health policy issues, attended the 2006 World Health Organization (WHO) World Health Assembly as a member of the U.S. delegation, and represented HHS at the 2006 WHO Western Pacific Regional Committee meeting.

Dr. Joseph (Joe) Millum is currently a Fellow in the Department of Clinical Bioethics at the NIH where he is engaged in research into the rights and responsibilities of parenthood, and the relationship between human rights and healthcare. He studied philosophy at Edinburgh University in the U.K. and moved to Canada to pursue his doctoral work in philosophy at the University of Toronto. His PhD thesis addressed the relationship between evolutionary biology and morality.

Joe joins us at FIC to assist with international bioethics matters, and in conjunction he will work with the bioethics team at the Clinical Center, NIH.

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GLOBAL HEALTH DATES

MARCH 8: INTERNATIONAL WOMEN'S DAY

MARCH 24: WORLD TUBERCULOSIS DAY

APRIL 7: WORLD HEALTH DAY

APRIL 25: WORLD MALARIA DAY/AFRICA

DECEMBER 1: WORLD AIDS DAY