

# THE GLOBE

NEWSLETTER OF THE DEPARTMENT OF INTERNATIONAL HEALTH | SPRING 2008 | WWW.JHSPH.EDU/DEPT/IH



## REPAIRING THE DYSFUNCTIONAL INTERNATIONAL NUTRITION SYSTEM

THE LANCET PUBLISHES THE *MATERNAL AND CHILD UNDERNUTRITION SERIES*



## From the Chair

Robert Black, MD, MPH

Our department's mission is to address the health problems of low- and middle-income countries. We have focused on the problems of low-income settings with major departmental strengths in the areas of undernutrition and infectious diseases. Maternal and child undernutrition continues to be prevalent and a substantial cause of mortality and disability, as documented in our recent series of papers in *The Lancet*. Likewise, the major infectious diseases of pneumonia, diarrhea, malaria, tuberculosis and AIDS, along with other endemic and epidemic conditions will demand attention in the coming decades. Nevertheless, global trends related to the nutritional and health transitions and the recognition of other important and emerging health problems suggest that we should consider how to respond more comprehensively.

A recent external review of our department affirmed our leadership in the areas of undernutrition and infectious diseases, but challenged us to think further about the health problems of middle-income countries or even of the better-off segments of poorer countries. In recent months we have been doing strategic planning to consider this issue. This process is still underway and I encourage faculty, students and staff to participate fully in the discussions.

Preliminary recommendations were presented by the strategic planning committee at a faculty retreat earlier this year. These indicated that we should maintain our current areas of strength and add selectively to these. They suggested specifically that we should progressively expand our work in areas such as nutrition-related non-communicable diseases (obesity, diabetes, cardiovascular diseases), mental health and injuries.

In all of these areas we have a foothold of faculty activity already and there are links to other areas of our department. As *The Lancet* undernutrition series points out, maternal and child undernutrition increases the risk of non-communicable diseases in adults, as well as reduces human capital. We have an active group of faculty working on global aspects of obesity and related conditions, including the study of birth cohorts that offer great potential for additional research. Our faculty working in mental health and injury control form a nucleus on which we can increase our faculty and student strength and our collaboration with other departments of the school. Furthermore, health systems, regardless of location, must be able to handle all of the health problems of the populations they serve. Faculty in our Health Systems Program are increasingly engaged in the organization, management and financing of health services and resource allocation decisions in both low- and middle-income settings.

Our department is constantly evolving and I am confident that we will be able in the future to address both the pre- and post-transition health problems of global importance.

SPRING 2008

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Cover photo: © 2007 Pradeep Tewari, Courtesy of Photoshare. A young girl feeds her brother in Chandigarh, India.

#### ABOUT THE DEPARTMENT

From a modest beginning in 1961, the Johns Hopkins Bloomberg School of Public Health's Department of International Health has grown into a global leadership role in health research, policy analysis, and program implementation. The Department is divided into four areas: Global Disease Epidemiology and Control; Health Systems; Human Nutrition; and Social and Behavioral Interventions. We offer master's and doctoral level training in these areas of international health, as well as doctoral training in public health practice.

# DEPARTMENT FACULTY CALL FOR REFORM OF THE “FRAGMENTED AND DYSFUNCTIONAL” INTERNATIONAL NUTRITION SYSTEM

--LANCET MATERNAL AND CHILD UNDERNUTRITION SERIES PUBLISHED

In a ground-breaking five-part series in *The Lancet*, a team of concerned scientists—led by Department of International Health faculty—presents the devastating consequences of maternal and child undernutrition, and challenges the global nutrition community to redouble its efforts to combat it. According to Dr. Jennifer Bryce of the Department, experts in the field believed “the international nutrition system was broken and that nutrition was divorced from maternal and child health.” Evidence of this, however, was scattered and often anecdotal. Therefore, leading researchers from across the globe formed the Maternal and Child Undernutrition Study Group to assess the situation systematically and comprehensively. Development of the series was led by Department Chair Dr. Black. Drs. Bryce and visiting professor Cesar Victora led the writing teams for two of the papers, and Dr. Caulfield was a key member of the Group.

With funding from the Gates Foundation, the Study Group spent 2 years collecting and analyzing the available data. The Group relied extensively on the talent and resources of Hopkins in general and the Department in particular. The work, for instance, could not have progressed without Drs. Christian, Katz, Moulton, Mullany, Sazawal, Tielsch, and West who allowed their data to be pooled and analyzed. The Group also extends its gratitude to the students who contributed to the analyses, including Anju Aggarwal, Gillian Buckley, Cristina Cardemil, William Checkley, Carmen Carrillo, and Ai Koyanagi.

Dr. Black hails the result of this collaborative effort—the *Lancet Maternal and Child Undernutrition Series*—as a “new evidence base for expanded nutrition-related programs and interventions, which if implemented at scale would prevent millions of deaths and disabilities.” To help instigate the changes recommended in the series, the



Zambian child carrying a harvest of sweet potatoes. ©2004, Andrew Haugen, Courtesy of Photoshare

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NUTRITION-RELATED FACTORS  
WERE RESPONSIBLE FOR 35% OF  
CHILD DEATHS GLOBALLY AND  
11% OF THE TOTAL GLOBAL  
DISEASE BURDEN.

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Global Alliance for Improved Nutrition (GAIN), the World Bank, the World Health Organization, UNICEF, USAID, and the Bill & Melinda Gates Foundation are sponsoring launch events worldwide. The first two events were held in London and Washington, D.C., on January 16, the day before *The Lancet* released the articles to the public. Both events were attended by renowned experts and leaders in the field, as well as journalists from major international news outlets. To generate momentum on national and regional levels, conferences are scheduled in five countries with severe undernutrition burdens: Ethiopia, India, Peru, Senegal, and Viet Nam.

## Measuring the Problem: 3.5 million deaths a year

In the first article of the series, Drs. Black and Caulfield, with invaluable assistance from Dr. Ping Chen, quantify the prevalence and immediate consequences of undernutrition. Their extensive review of evidence reveals that maternal and child undernutrition is responsible for 3.5 million unnecessary deaths a year and 35% of the disease burden in children younger than 5 years. Disease burden is expressed in terms of disability-adjusted life years (DALYs), essentially one year of “healthy” life lost due to premature death or disability.

The analysis considered specific effects of undernutrition, such as stunting and wasting, as well as deficiencies of essential vitamins and minerals. Estimates for 2005 show that stunting, severe wasting, and intrauterine growth restriction together were responsible for 2.2 million deaths and 21% of DALYs for children under 5 years. Vitamin A

and zinc deficiencies each accounted for approximately a half million deaths, and together were responsible for 9% of global childhood DALYs—the highest disease burden among micronutrients. The paper also estimates that sub-optimum breastfeeding is responsible for 1.4 million child deaths and 44 million DALYs in children under five.

### Long-term effects and the first 24 months

Cesar Victora—visiting IH professor from the Universidade Federal de Pelotas, Brazil (see page 12)—focused his analysis in the second paper on the long-term health and economic effects of undernutrition. What he and his co-authors found is striking: the effect of undernutrition in the first two years of life leads to irreversible damages with repercussions throughout a person’s life.

“There is strong evidence that undernourished children are more likely to become short adults, to have lower educational achievement, to have lower adult economic status, and to give birth to smaller infants. All compelling reasons to make fighting undernutrition a high priority in national and international health and economic agendas,” explains Victora. On a more technical note, the authors confirmed that height-for-age at 2 years is more closely related to development outcomes than very commonly used measures, such as weight-for-age, birthweight, or body mass index (BMI).

These long-term and intergenerational effects of undernutrition have enormous implications for low- and middle-income countries. Leaders and program managers in the field should begin to view nutrition as an investment not only in health but also in the growth, education and development of individuals and nations.

### Effective Interventions: Breastfeeding counseling and micronutrients

Members of the Study Group from institutions in Pakistan and Bangladesh took the lead in reviewing the evidence on the effectiveness of nutrition-related interventions. They found that, of existing interventions, breastfeeding counseling and fortification or supplementation with vitamin A and zinc have the greatest potential to reduce the burden of child morbidity and mortality.

By modeling the effects of these interventions, the authors show that, if implemented at scale in the 36 countries with the highest burden of undernutrition, they could reduce mortality between birth and 36 months by about 25%, reduce stunting at 36 months by 36%, and reduce DALYs by around 25%.

The authors are careful to emphasize, however, that investments to improve education, economic status and empowerment of women are badly needed to effectively fight fundamental causes of undernutrition over the long term.

### Funding what works at the national level

Eighty percent of the world’s undernourished live in just 20 countries. In the fourth paper of the series, Dr. Bryce and colleagues set out to define the best strategies to combat undernutrition at the national level in those countries with the most difficult battles ahead of them. While keeping national contexts in mind, the authors strove to make specific and actionable recommendations based on the best available evidence. After an extensive review of the literature, Dr. Bryce’s group identified the following seven challenges that national political and program leaders must confront head on when developing programs to address undernutrition:

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DAMAGE SUFFERED IN EARLY LIFE LEADS TO PERMANENT IMPAIRMENT, AND MIGHT ALSO AFFECT FUTURE GENERATIONS. ITS PREVENTION WILL PROBABLY BRING ABOUT IMPORTANT HEALTH, EDUCATIONAL, AND ECONOMIC BENEFITS.

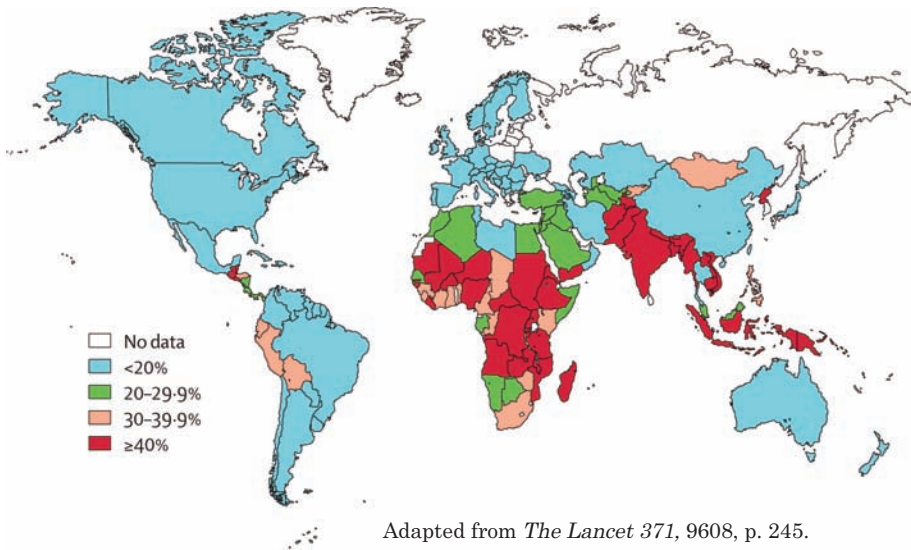
—CESAR VICTORA, VISITING PROFESSOR, INTERNATIONAL HEALTH

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### PREVALENCE OF STUNTING IN CHILDREN UNDER 5 YEARS OF AGE



Adapted from *The Lancet* 371, 9608, p. 245.

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UNIVERSAL COVERAGE OF AVAILABLE AND EFFECTIVE NUTRITION-RELATED INTERVENTIONS COULD PREVENT A QUARTER OF CHILD DEATHS UNDER 36 MONTHS AND REDUCE STUNTING BY A THIRD.

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## UNDERNUTRITION IS RESPONSIBLE FOR THE DEATHS OF 3.5 MILLION CHILDREN A YEAR.

A mother feeds her malnourished child at a nutritional rehabilitation center in Shivpuri, Madhya Pradesh, India, © 2007, Anil Gulati

1. Getting nutrition on the national agenda
2. Doing the right things
3. Not doing the wrong things
4. Acting at scale
5. Reaching those in need
6. Collecting and using good data for decision making
7. Building strategic and operational capacity

From these seven challenges, an overarching imperative emerged: National programs must redirect their focus. The work of the Study Group demonstrates that there is a period from conception to 24 months for reducing the adverse effects of undernutrition. Unfortunately, many national programs devote scant resources to this age group. Conversely, a surprising proportion of resources are currently spent on unproven and counterproductive interventions, such as growth monitoring and school feeding programs targeting 4- to 6-year-olds.

While the challenges are daunting, a concerted effort in these 20 countries could lead to the achievement of several Millennium Development Goals, including halving the number of people who suffer from hunger and significantly reducing the child and maternal mortality rates.

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MOST COUNTRIES WITH HIGH LEVELS OF UNDERNUTRITION ARE NOT IMPLEMENTING THE INTERVENTIONS AND STRATEGIES SHOWN TO BE EFFECTIVE IN ADDRESSING THE PROBLEM AT SCALE.

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### A Call to Action

The authors of the final article in the series argue that “the funding provided by international donors to combat undernutrition is grossly insufficient and poorly targeted, and is inappropriately dominated by food aid and supply-technical assistance.”

The article illustrates how the international nutrition system, which is made up of international and donor organizations, academia, civil society, and the private sector, is fragmented and dysfunctional. To reform the system, the authors suggest five priority areas for action.

1. A new global governance structure. A Global Nutrition Summit should be held within the next 6 months to identify a more appropriate structure to address the most pressing nutrition-related problems.
2. A more effective United Nations. The UN Standing Committee on Nutrition needs to hold individual UN agencies accountable for results.
3. Less duplication by parallel organizations. Donors should develop immediate plans for simplifying the current system and be prepared to work on crucial issues, such as international trade policy, that effect nutritional outcomes.
4. More investment in capacity strengthening in countries with high burdens of undernutrition. Funders should make it a priority to strengthen regional and sub-regional networks because of the potential to reach a larger number of beneficiary countries.
5. Research leadership in areas that matter. Academic journals with an interest in maternal and child undernutrition should meet in 2008 to develop a strategy to increase the profile of undernutrition.

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THE MOMENT IS RIPE FOR THESE REFORMS. THEIR IMPLEMENTATION WOULD OFFER THE CHANCE OF A BETTER, MORE PRODUCTIVE LIFE TO THE 67 MILLION CHILDREN BORN EACH YEAR IN THE COUNTRIES MOST SEVERELY AFFLICTED BY UNDERNUTRITION.

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The authors conclude that the implementation of these changes “offer the chance of a better, more productive life to the 67 million children born each year in the countries most severely afflicted by undernutrition.”

### The Future

International Health faculty—Drs. Black, Bryce, Caulfield, and Victora—as members of the Maternal and Child Undernutrition Study Group have taken the first steps in reinvigorating the fight against undernutrition. While documenting the scope of the problem and uncovering many deficiencies in the system, their work also sets the stage for evidence-based and thoughtful action in the future. At the launch of the series in Washington, D.C., Dr. Black remained optimistic, “The problems are long standing and embedded in organizational structure, but a concerted effort can provide greater progress and accountability. Progress is possible.”

All five articles and a PowerPoint presentation on the series are now available for free on the Maternal and Child Undernutrition Web site, which was developed especially to support the launch of *The Lancet* series: <http://www.globalnutritionseries.org/>.

# DEPARTMENT RESEARCH BRIEFS

## Do nutrition knowledge and beliefs modify the association of socio-economic factors and diet quality among US adults?

by May A. Beydoun and Youfa Wang  
(2008) *Preventive Medicine*, 46, 145–153

The study analyzed the effects of socio-economic status (SES) factors on diet quality and fruits and vegetables intake among US adults and effect modification by nutrition knowledge and beliefs. Multivariate analyses indicated that better SES independently improved likelihood of adequate fruits and vegetables intake and overall diet quality. In several cases, nutrition knowledge and beliefs acted as an effect modifier. In particular, education showed no association with diet quality among subjects in the lowest nutrition knowledge and belief tertile, while the association was consistently stronger in the highest tertile. The study concludes, therefore, that to improve overall diet quality, socio-economic interventions must be coupled with health education programs targeting all segments of the US population.



## Efficacy trial shows 83% reduction in RSV hospitalization among Navajo and Apache children

Kate O'Brien—Associate Professor, Center for American Indian Studies—led a Phase 3 study that found motavizumab reduces hospitalizations due to respiratory syncytial virus (RSV) by 83 percent. In addition, the incidence of RSV-specific lower respiratory infections that required outpatient management decreased by 71 percent. Motavizumab is an investigational monoclonal antibody being evaluated for its potential to prevent RSV disease in high-risk pediatric patients. The trial involved 1,410 full-term infants younger than six months from Navajo and Apache communities.



A young boy holds his baby brother while study product is administered.

## U.N. Ambassador Meets with Global Research Activity (GRA) Grantees



The UN Secretary-General's Special Envoy to Stop TB, former Portuguese President Jorge Sampaio (seated right), paid an official visit to a USAID-funded study site in Rio de Janeiro, Brazil, in December. He met with GRA grantees to discuss routine detection and treatment of latent TB infection in patients served by community HIV clinics and the effect on TB prevalence among those with HIV/AIDS.



## Diagnosis of Cystic Echinococcosis, Central Peruvian Highlands

by Cesar Gavidia and colleagues  
(2008) *Emerging Infectious Diseases* 14, 2, 260-266  
<http://www.cdc.gov/EID/content/14/2/260.htm>

The authors evaluated prevalence of cystic echinococcosis (CE) in a central Peruvian Highland district by using 4 diagnostic methods: ultrasonography for 949 persons, radiography for 829, and 2 serologic tests for 929 (2 immunoblot formats using bovine hydatid cyst fluid [IBCF] and recombinant EpC1 glutathione S-transferase [rEpC1-GST] antigens). For the IBCF and rEpC1-GST testing, prevalence of liver and pulmonary CE was 4.7% and 1.1% and seropositivity was 8.9% and 19.7%, respectively. Frequency of seropositive results for IBCF and rEpC1-GST testing was 35.7% and 16.7% (all hepatic cysts), 47.1% and 29.4% (hepatic calcifications excluded), and 22.2% and 33.3% (lung cysts), respectively. Weak immune response against lung cysts, calcified cysts, small cysts, and cysts in sites other than lung and liver might explain the poor performance of the serodiagnostic tests. The authors confirm that CE is highly endemic to Peru and emphasize the limited performance of available serologic assays in the field.

# PNEUMOADIP UPDATE

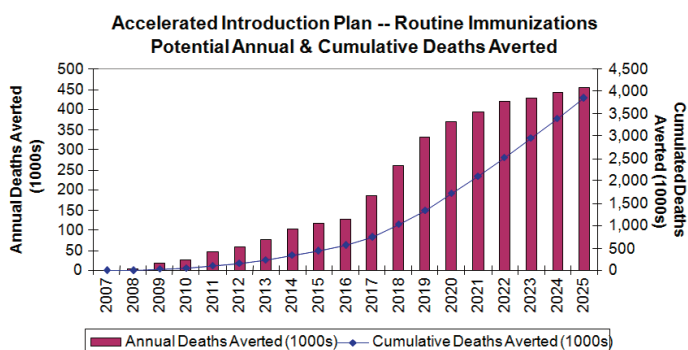
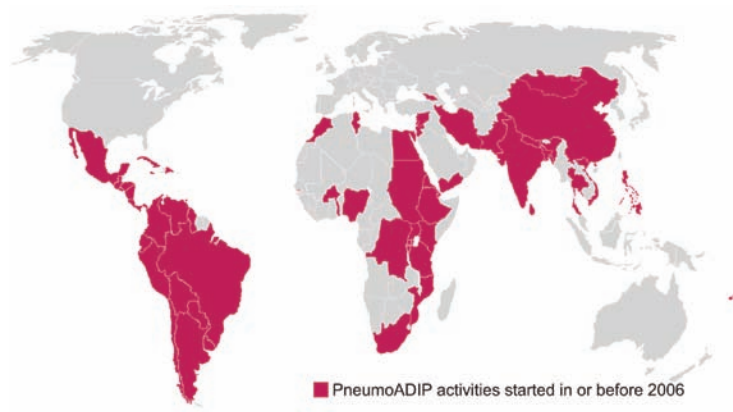
In 2003, GAVI awarded \$30 million to the Department of International Health for the PneumoADIP program. The project was extended for another year and an additional \$11.2 million in 2008. The team includes epidemiologists, clinical trialists, communications specialists, experts in financing and demand forecasting, economists and others. To date, PneumoADIP has employed and trained over 25 students, 5 of whom were hired as faculty within the group upon graduation.

## Research & Surveillance

PneumoADIP epidemiologists and surveillance officers support research and surveillance activities including:

- Surveillance networks
- Small grant projects
- Global disease burden estimation
- Vaccine ancillary studies

These activities are taking place in over 56 countries in Africa, Asia, the Western Pacific region, the Eastern Mediterranean region and Latin America. A recent report of data from these centers is now available on the PneumoADIP website ([http://www.preventpneumo.org/activities/surveillance\\_research/](http://www.preventpneumo.org/activities/surveillance_research/)).



## Finance & Supply

Based on data collected and synthesized by Hopkins faculty with PneumoADIP, in February 2007, five nations and the Bill and Melinda Gates Foundation announced their contribution of \$1.5 billion towards a pilot Advance Market Commitment (AMC) to subsidize the future purchase of pneumococcal vaccines. (For more info, please visit [www.vaccineamc.org](http://www.vaccineamc.org)) The AMC has the potential to save 5.4 million lives by 2030.

Also in 2007, thirty GAVI-eligible countries expressed interest in applying for pneumococcal vaccine and five countries have already submitted full applications to GAVI. The first child may be vaccinated with GAVI-funded vaccine by as early as the end of this year.

## Communications

PneumoADIP's communication specialists raise awareness through communications and advocacy activities including:

- A website which receives over 10,000 hits per month
- A monthly newsletter with more than 4,000 subscribers
- Media and advocacy training for stakeholders at all levels
  - In October 2007, the PneumoADIP and the Hib Initiative hosted their first Child Pneumonia Prevention Africa Regional Advocacy Workshop in Dar es Salaam, Tanzania. Another workshop is planned for Indonesia in April of this year
- Communications research: Research has shown a sevenfold increase in media coverage of pneumococcal disease since PneumoADIP began. This has helped raise the awareness of pneumonia and pneumococcal disease from extremely low levels measured as at the start of PneumoADIP
- Media relations
  - 2007 highlights included op-eds, editorials, articles and radio and television pieces spurred by the PneumoADIP team and appearing in such outlets as the *San Francisco Chronicle*, *New York Times*, *Washington Post*, BBC world news, *The Accra Daily Mail*, *The Hindu*, and *The Lancet*
  - Authors have included African Ministers of Health, a U.S. Senator, Dr. Mathu Santosham, and Dean Michael Klag

# NEWS & HIGHLIGHTS

## Faculty Promotions

**Aida Abashawl, MD, MPH**  
Assistant Scientist, Global Disease  
Epidemiology and Control

**Aruna Chandran, MD, MPH**  
Assistant Professor, Health Systems

**Shannon Doocy, PhD**  
Assistant Professor, Health Systems

**Anna Durbin, MD**  
Associate Professor, Global Disease  
Epidemiology and Control

**Alain Labrique, PhD, MHS**  
Assistant Professor, Global Disease  
Epidemiology and Control

**Jean Nachega, MD, MPH**  
Associate Scientist, Global Disease  
Epidemiology and Control

**William Pan, DrPH, MS, MPH**  
Assistant Professor, Global Disease  
Epidemiology and Control

**Christa Fischer Walker, PhD, MHS**  
Assistant Scientist, Global Disease  
Epidemiology and Control

**Youfa Wang, MD, PhD, MHS**  
Associate Professor, Human Nutrition

## Faculty Recognition

**William Pan**, Asst. Professor, GDEC, received a Faculty Research Initiative Fund Award for his proposal entitled, "Road construction, colonization, and epidemic malaria in Peru's Northern Amazon." To learn more about Dr. Pan's work go to [www.npr.org](http://www.npr.org) and listen to a podcast about his recent trip to Peru.



*Baltimore Magazine* named **Neal Halsey**, Professor, GDEC, one of the top pediatric doctors in the region specializing in infectious disease.

<http://www.baltimoremag.com>



**Keith West**, Professor, Human Nutrition, gave the inaugural lecture of the Annual Mead Johnson Institute of Nutrition at Mahidol University (INMU) Nutrition Seminar Series, on the occasion of the 30th anniversary of INMU in Bangkok, Thailand.

**Orin Levine**, Associate Professor, Health Systems, will give the first Robert Austrian lecture at the 11th Annual Conference on Vaccine Research, May 6, 2008.



## New Faculty

**Agbessi Amouzou, PhD, MHS, MSc**  
Assistant Scientist, Health Systems

**Jon Kim Andrus, MD**  
Associate, Global Disease Epidemiology and Control

**Robert Ball, MD, MPH, ScM**  
Associate, Health Systems

**Julie Buss, MPH**  
Research Associate, Health Systems

**Siddharth Raj Agarwal, MBBS**  
Associate, Health Systems

**Linda Bartlett, BMEDSc, MD**  
Associate Scientist, Health Systems

**Hassan Bella, MBBS, PhD**  
Associate, Health Systems

**Joel Breman, MD, DTPH**  
Senior Associate, Global Disease  
Epidemiology and Control

**Mohammad Ashraf Chaudhary, PhD**  
Associate, Global Disease Epidemiology and Control

**Santiago Cornejo, MA**  
Research Associate, Health Systems

**Capri-Mara Fillmore, MD, MPH, MSc**  
Associate, Global Disease Epidemiology and Control

**Peter Hansen, PhD**  
Assistant Scientist, Health Systems

**Rosemary Hollick, MSc**  
Research Associate, Global Disease  
Epidemiology and Control

**Subarna Khattry, MBBS, DOMS**  
Adjunct Asst. Professor, Global Disease  
Epidemiology and Control

**Gita Mirchandani, PhD, MPH**  
Associate, Health Systems

**Edgar Necochea, MD, MPH**  
Associate, Health Systems

**Louis Niessen, MD, PhD**  
Associate Professor, Health Systems

**Myaing Myaing Nyunt, MBBS, MD, MPH**  
Assistant Professor, Global Disease  
Epidemiology and Control

**Prasanthi Puvanachandra, MB BChir, MA, MPH**  
Research Associate, Health Systems

**George Siber, MD**  
Adjunct Professor

**Laveta Stewart, MPH, MSc**  
Research Associate, Health Systems

**Nhan Tran, PhD, MHS**  
Assistant Scientist, Health Systems

**Dan VanDeReit, MD**  
Research Associate, Health Systems

**Cesar Victora, MD, PhD**  
Visiting Professor, Health Systems

**Karl Western, MD, DTPH**  
Associate, Global Disease Epidemiology and Control

**Emma Williams, MHS**  
Research Associate, Health Systems

**Walidah Willough**  
Research Associate, Health Systems

## New International Health Course

Large-Scale Effectiveness Evaluations of Health Programs

Instructors:

Drs. Cesar Victor, Robert Black, Jennifer Bryce, Kate Gilroy, and Neff Walker

Mondays, 5:30 – 7:20

March – May 2008

221.841.01 – International Health (2 credit hours)

# NEWS & HIGHLIGHTS

## Student Recognition



**Ji Li**, a third-year doctoral student in Human Nutrition, won the 2007 NIH Travel Award to attend the conference “Vitamin D and Health in the 21st Century: An Update.” In January, the *Journal of Nutrition* published her article “Tracking of dietary intake patterns is associated with baseline characteristics of urban low-income African-American adolescents,” which she first authored. She will return to China this summer to resume her dissertation research project that is based on “Metabolic Syndrome Risk Factors among Children and Adolescents in Beijing,” a pilot study funded by her 2006 Global Field Experience Award.



**Hua Jing**, a second-year doctoral student at the Center for Human Nutrition, received the inaugural DSM-Johns Hopkins Scholarship for the 2007-2008 academic year. DSM, a leading manufacturer of nutritional ingredients, established the full scholarship to support the School’s education and research mission in human micronutrient deficiency prevention and control in developing countries.

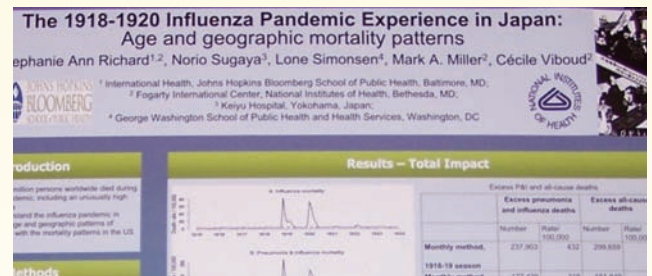
In the summer of 2007, Hua Jing worked as an intern for SIGHT AND LIFE, a humanitarian initiative of DSM, based in Kaiseraugst, Switzerland. She describes her experience in an interview published in the SIGHT AND LIFE Magazine, available online at <http://www.sightandlife.org/MAG/m307/aMagCont307.htm>.



**Christine Stewart**, a fourth-year doctoral student in Human Nutrition, was selected as one of three finalists in this year’s International Nutrition Council Student Competition for her abstract entitled, “The relationship between birth weight, maternal nutritional status, and blood pressure among 7-year-old children in rural Nepal,” which is based on her doctoral research. At the 2008 Experimental Biology Meetings in San Diego, a 3-judge panel at the INC business meeting will choose the overall winner from the three finalists.

## Delta Omega 2008 Poster Contest

**Stephanie Richard’s** poster, “The 1918-1920 Influenza Pandemic Experience in Japan: Age and geographic mortality patterns,” won this year’s GDEC poster competition and took third prize in the applied science category of the 2008 Delta Omega competition. **David Sintasath’s** entry, “Identification of a Novel Simian T-lymphotropic Virus (STLV) Lineage in Two Monkey Species from Cameroon: High STLV Diversity at the Hunter-Primate Interface,” took third in the basic/lab science category.



Stephanie Richard’s entry and the winner of the 2008 GDEC Poster Competition

## Congratulations Successful Thesis Defense

**Aneesa Arur**, Health Systems, Contracting for Health Services in Afghanistan: An Analysis of Changes in Service Utilization and Quality of Care between 2004 and 2005

**Amy Ellis**, Social and Behavioral Interventions, Intra-household Dynamics and Treatment Responses to Severe Febrile Illness in Children in Kolikoro Region, Mali

**Rebekah Heinzen**, Health Systems, Assessing Parents’ Demand for a Childhood Pneumococcal Vaccine in Dhaka, Bangladesh: A Contingent Valuation Survey

**Ai Koyanagi**, GDEC, Prevention of Childhood Morbidity in an Endemic Area of Africa

**Andrea Hanlon Mitola**, Human Nutrition, Using Technology to Study Dietary Lapse and Weight Loss Maintenance among Weight-Reduced Adults

**Patrick Mullen**, Health Systems, Chronic Conflict, Economic Status and Health Services as Determinants of Health Outcomes among the General Population in Burundi

**Hee-Jung Song**, Human Nutrition, Development, Implementation and Evaluation of an Urban Food Store Intervention for Korean Food Stores in Baltimore City

## Global Health Conference Winners

Two Department of International Health students were among 25 chosen by the Global Health Council to present their abstracts in the New Investigator Program at this year’s conference, May 27-31, 2008, Washington, DC.

### Rebekah Heinzen

Assessing the demand for a pneumococcal vaccine in Dhaka, Bangladesh

### Amy Ellis

Intra-household management of severe childhood malaria in Mali

# NEWS & HIGHLIGHTS



Kyla Hayford, Toru Matsubayashi, and Jim Tielsch



Larry Moulton, Barb Ewing, Court Robinson



Lois Privor-Dumm, Mathu Santosham, Allyson Bear and her son Jack.

The 2007 Holiday Party

## New Staff

**Brenda Begay**, Administrative Secretary, Center for American Indian Health, Health Systems

**Lauren Burns**, Research Program Coordinator, Health Systems

**Terresa Carter**, Senior Research Assistant, Global Disease Epidemiology and Control

**Elda Coffey**, Research Nurse Supervisor, Center for American Indian Health, Health Systems

**Jason Ellis**, Financial Manager, GDEC

**Kathryn Hartman**, Food Service Worker, Human Nutrition

**Joanna Herman**, Food Service Worker, Human Nutrition

**Carolyn Payne**, Food Service Worker, Human Nutrition

**Jan Pinderhughes**, Administrative Coordinator, Health Systems

**Heather Rosen**, Senior Research Assistant, Health Systems

**Marianna Rothbard**, Technical Writer, CIR

**Audrey Solimon**, Program Administrator, Center for American Indian Health, Health Systems

**Ronald Sollid**, Food Service Worker, Human Nutrition

**Carol Thibodo**, Food Service Worker, Human Nutrition

**Lisa Werner**, Senior Research Service Analyst, GRA

**Nichole Zivuku**, Budget Analyst

## Farewell

Best wishes to **Melissa Dillingham**, Senior Financial Analyst, whose last day is March 6. Since joining the Department nearly two years ago, her efforts have strengthened our financial operations around the globe. Her impact will be felt for years to come. We wish her well at the University of Colorado.

## Farewell

The Department wishes **Associate Professor Gary Darmstadt** a fond farewell. He recently accepted a position with the Gates Foundation where he will be in charge of the Global Program on Neonatal Health. During his 5 years with Hopkins, he worked tirelessly on issues around neonatal health and survival. Gary is the founding director of the International Center for Advancing Neonatal Health and was instrumental in the development of the *Lancet Neonatal Survival Series* in 2005. His expertise, knowledge and passion will be missed. However, we are all delighted that Gary is going on to a position where he can make a difference in the lives of millions of newborn infants around the world.

## Experimental Biology Conference San Diego April 5 – 9, 2008

Oral Presentations by Human Nutrition Faculty and Students

**Youfa Wang, Associate Professor**

Will all Americans become overweight or obese? Obesity prevalence and health care cost projections

**May Beydoun, Postdoc**

Dairy and related nutrient consumption among US adults and their association with obesity, central obesity and the metabolic syndrome

**Ji Li, Doctoral student**

Influence of growth trajectories on risk of overweight during early childhood among a population-based longitudinal cohort in China

**Christine Stewart, Doctoral student**

The relationship between birth weight, maternal nutritional status, and blood pressure among 7-year-old children in rural Nepal

# INSTITUTE FOR INTERNATIONAL PROGRAMS TAKES ON NEW ROLE

Ninety-five percent of child deaths occur in the developing world and approximately 40% of those happen during the neonatal period. These striking numbers are not primarily the result of HIV/AIDS, which receives much of the media and donor attention, but of ailments such as diarrhea and pneumonia that rarely prove fatal in developed countries. This inequity is the force behind the Institute for International Programs' new initiative to improve the quality and availability of evidence on maternal, neonatal, and child health (MNCH) and nutrition. The Institute aims to reduce deaths among women, newborns and children in developing countries by providing better evidence to global public health leaders and improving their policy and funding decisions.

To achieve its aims, the Institute is transforming itself into a research consortium with national and regional level partners from both developed and developing countries. For example, one of the Institute's leading members, Dr. Cesar Victora (profiled on page 12) is a professor at the Federal University of Pelotas in Brazil. He will be based in Baltimore for the next 6 months to help lay the Institute's new foundations. In addition, staff are beginning to conduct assessments of potential academic and research organizations based in sub-Saharan Africa and South Asia, where maternal, neonatal and child mortality are the highest.

The Bill & Melinda Gates Foundation, the Canadian International Development Agency (CIDA), and UNICEF are currently the Institute's primary funders. Activities are focused on two inter-related endeavors: (1) evaluating large-scale MNCH and nutrition programs and (2) developing tools and methods for producing better evidence on MNCH and nutrition programming.

UNICEF-NY, through funding from CIDA, is currently supporting a retrospective evaluation of UNICEF's Accelerating Child Survival and Development (ACSD) programs in West Africa. And as part of the process to jump-start the rapid scale-up of high-impact interventions, the Partnership for Maternal, Newborn & Child Health has

asked Institute researchers to conduct prospective evaluations of country-level plans in Burkina Faso, Malawi, and Mozambique.

As MNCH programs are scaled up to reach Millennium Development Goals, a single common evaluation framework to evaluate these programs is essential. The Catalytic Initiative to Save a Million Lives has selected the Institute to take the lead in this effort, which includes not only identifying standard indicators for impact and coverage, but also program guidelines, such as mandating that evaluations are led by institutions independent of implementing organizations.

The Institute is also working on the development and implementation of the following tools and methods:

- real-time methods for monitoring under-5 mortality
- a modeling tool to help decision makers at the national level estimate the cost and effectiveness of MNCH and nutrition interventions
- improved estimates of maternal and child deaths from specific causes
- updated global burden of disease estimates
- evaluation of the Global Fund for AIDS, TB and Malaria

Through a commitment to high-quality research and analysis, the Institute aspires to redirect the conversation of the global health community back to what most dramatically affects maternal and child mortality, including undernutrition, diarrhea, and pneumonia. While based in the Department, the Institute aims to have a broad, interdisciplinary team that draws on expertise from individuals and institutions across the globe.

Hopkins faculty and staff affiliated with the Institute, arranged by role and expertise:

#### Lead members

Robert Black, MD, MPH, Chair  
Jennifer Bryce, EdD  
Cesar Victora, MD, PhD, visiting professor  
Neff Walker, PhD

#### Economics

Damien Walker, PhD  
Ben Johns, MPH  
Marjorie Opuni, MPH, Dept. of Population, Family and Reproductive Health

## PROGRESS TOWARD INTRODUCING HIB VACCINE IN LOW-INCOME COUNTRIES



2007 saw the largest increase in countries making the decision to apply for co-financing to procure Hib vaccine—26 additional countries. From 2004 to 2007, the proportion of low-income countries using or approved for financing support for introduction of Hib vaccine has increased from 18 percent to 65 percent. With a total of 53 countries using or expected to be using by the end of 2008, it is estimated that 35.1 million of the birth cohort in low-income countries will have access to a vaccine that prevents Hib pneumonia and meningitis. The February 15 *Weekly Epidemiological Record* by WHO and the recent *Morbidity and Mortality Weekly Report* (MMWR) from the CDC report on the considerable progress that has been made in the uptake of the Hib vaccine in the countries that most need it. The complete reports are available online: *Weekly Epidemiological Record* ([www.who.int/wer/2008/wer8307.pdf](http://www.who.int/wer/2008/wer8307.pdf)); MMWR ([www.cdc.gov/mmwr/preview/mmwrhtml/mm5706a3.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5706a3.htm)).

(Photo: Olivier Asselin/WHO)

#### Implementation and scale-up

David Peters, MD, DrPH, MPH

#### Neonatal health

Abdullah Baqui, MBBS, DrPH

#### Maternal mortality

Linda Bartlett, MD

#### Mortality monitoring

Agbessi Amouzou, PhD, MHS, MSc

#### ACSD

Kate Gilroy, PhD, ScM

#### Data analyst

Elizabeth Hazel, MHS

#### Administrative coordinator

Jeremy Schiefen, Hopkins MPH student

## Welcome Cesar Victora, Visiting Professor

Please welcome Dr. Cesar Victora to the Department. He joins us from Pelotas, Brazil, where he is a professor of Epidemiology at the Federal University. Currently on sabbatical, he will be based in Baltimore for the next 6 months.



Victora's ties to the Department go back many years. He was one of developers, along with Dr. Jennifer Bryce, of the *Lancet Child Survival Series* in 2003. This year he first-authored one of the articles in the *Lancet Maternal and Child Undernutrition Series*, whose development was led by Department Chair Dr. Black (see page 3).

One of his primary goals while at Hopkins is to help spearhead a new initiative by the Institute for International Programs to improve the quality and availability of evidence on maternal, neonatal, and child health and nutrition. He is also co-teaching a new course that relates to this work, entitled, "Large-scale effectiveness of evaluations of health programs," which begins in March.

Victora has an MD from the Federal University of Rio Grande do Sul and a PhD in Health Care Epidemiology from the London School of Hygiene and Tropical Medicine, where he is an honorary professor. In 2005, he won Brazil's highest medical honor, the Conrado Wessel Prize.

In a recent profile in *The Lancet*, he describes his work over the past 10 years as "trying to raise the visibility of child health in the world." He has conducted extensive research in the fields of maternal and child health and nutrition, equity issues and the evaluation of health services. He works closely with UNICEF and with the World Health Organization, where he is a consultant to the Department of Child and Adolescent Health and Development.

## First Global Health Faculty Grants Awarded

The Johns Hopkins Center for Global Health awarded pilot grants of \$50,000 to 3 International Health faculty members. Winning proposals were led by **Drs. Abdullah Baqui, Adnan Hyder, and Alain Labrique.**

The Center awarded a total of ten grants that are intended to support global health research projects and to help recipients secure extramural funding. The competition was open to instructors, assistant professors and associate professors from the Schools of Medicine, Nursing, and Public Health.

The winning proposals were as follows:

### **The effect of maternal antenatal vitamin D supplementation on neonatal immune function: A randomized double-blind placebo controlled trial**

Dr. Abdullah Baqui, Associate Professor, Health Systems  
Collaborator: Dr. Saifuddin Ahmed, PFRH; Daniel Roth, MD, PhD candidate

### **Innovations in measuring injury and disability in low income countries: Use of a demographic surveillance system in Uganda**

Dr. Adnan Hyder, Associate Professor, Health Systems  
Collaborators: Dr. David Bishai, PFRH; Dr. George Pariyo, Makerere University; Dr. Stephen Wegener, School of Medicine

### **The portable field dark adaptometer: Validating a novel device for field-based screening and detection of vitamin A deficiency and night blindness, a debilitating condition associated with high maternal and child mortality**

Dr. Alain Labrique, Assistant Professor, GDEC  
Collaborators: Drs. Keith West and Parul Christian, Human Nutrition; and Dr. Alfred Sommer, Epidemiology and International Health



Dr. Labrique demonstrates his portable test for night blindness at a conference in Lima, Peru.



## THE GLOBE SPRING 2008

Johns Hopkins Bloomberg School of  
Public Health  
Department of International Health

615 N. Wolfe Street  
Baltimore, MD 21205  
410-955-3734  
www.jhsph.edu/dept/IH

### Robert Black, Chair

Associate Chairs:  
James Tielsch, Academic Programs  
Joanne Katz, Director, Global Disease  
Epidemiology and Control  
Mathuram Santosham, Director, Health Systems  
Laura Caulfield, Director, Human Nutrition  
Peter Winch, Director, Social and Behavioral  
Interventions

Writer/Designer, Brandon Howard

## DEPARTMENT AND ACADEMIC CALENDAR

### Friday, March 7

Meeting with Deans Klag  
and Yager  
12:15 p.m., faculty; 2 p.m.,  
students. W4030

### Friday, March 14

Admitted Student Day

### Monday, March 24

4<sup>th</sup> term begins

### Friday, April 4

Last day for doctoral  
students to submit thesis

### Monday, April 7

Admitted Student Day

### Thursday, April 24

Faculty meeting, noon  
Feinstone Hall

### Friday, May 15

Last day of classes for 4<sup>th</sup>  
Term

### Wednesday, May 20

Public Health Convocation  
Ceremony