

Global Health Matters

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

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Fogarty Framework Programs in Global Health

World-renowned research scientists and educators from all corners of the globe—U.S., Latin America, Africa, China and Russia—gathered on the NIH campus on November 30 and December 1, 2006, to participate in the first international networking meeting for the FIC



Dr. Flora Katz, Program Director, Framework, FIC and Dr. Warren Johnson, Cornell University

“Framework Programs for Global Health.”

The programs link schools from diverse disciplines on a single or on multiple campuses—such as Schools of Public Health and Medicine with Schools of Engineering, Law, Business, International Relations, Communications and others—to create joint activities, curricula and educational opportunities in global health.

In many cases, the process of preparing an application was the first time some members of the global health community at a university learned of each other’s work.

A repeated theme throughout the meeting was the catalytic value of bringing all these strands together as a truly trans-campus program. The flip side, however, was the repeated theme of the challenges—administrative and cultural—of working across traditional boundaries within the institutions.

In a series of short presentations, panel discussions and break out working groups participants discussed the various models they are using to create global health programs.

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International Health Research Activities Report



Overview of Scope and Timeframe For New Publication

The Fogarty International Center, with the support of the NIH Director, is coordinating an effort which will enable NIH to take stock of the extent of our current extramural investments in global health—the International Health Research Activities Report. It is hoped the report will be of use to a broad range of audiences, including policy-makers, researchers and national governments.

Under the direction of Dr. Karen Hofman, Director of Fogarty’s Division of Advanced Studies and Policy Analysis, planning has begun for publication of the new biennial, trans-NIH report on investment in international health research and research training.

“Polls indicate that the American public wants to address global health disparities and believes that health research should be top priority for international spending,” said Dr. Hofman. “Internal and external stakeholders are clamoring for information on NIH investments abroad and this is an opportunity to provide them and the U.S. Congress with what they need.”

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LETTER FROM THE DIRECTOR



Dr. Roger I. Glass

It is a critical time in this country’s history—and in the state of the world, where in the broadest sense we in health have a great deal to offer. Therefore, it was a tremendous privilege to welcome Dr. Barry Bloom, the Dean of the Harvard School of Public Health, to the NIH campus to address us on the mission of global health at the 2006 David E. Barnes Global Health Lecture.

“The challenge in global health is simple. A billion of the 6.2 billion people alive enjoy a long and healthy life. Our challenge is to help the other five billion to live longer, healthier lives,” as Dr. Bloom stated. “The global public health paradigm—and it is a paradigm—can be summarized in three simple statements. The first is to

define the problem; the second is to identify the risks; and the third is to design interventions to prevent the disease or the problem.”

A leader in global health, Dr. Bloom has been on the advisory boards of the International Vaccine Institute and WHO. He has worked with the Gates Foundation and with almost every major group that has advised on global health. He has been, and continues to be, a “lifeguard” for Fogarty. In 1996, he worked with us to create a group of articulate recommendations that changed the direction of Fogarty, for the past decade. He returned, in 2003, to provide a reorientation of that plan and those recommendations still guide us today.

Dr. Bloom’s visit was timely. The Harvard School of Public Health—like Fogarty—is going through a strategic planning process. Under Dr. Bloom’s guidance, they put together a framework of multidisciplinary global health areas that we all recognize as important. These include the unfinished agenda of communicable disease, the coming epidemic of chronic disease, the unnecessary epidemic of injuries and violence and two overwhelming issues: the disparities in health within countries and be-

tween countries and the whole vexed issue of health systems.

As we know, the world faces enormous environmental threats to health, whether it is water shortages and air pollution in China, or rising temperature and the inevitable spread of vector-borne and other diseases. People around the world are displaced by war, famine and civil and political unrest. There are almost 40 million displaced refugees and a slew of failed states since 1955, where parts of the country or governments can not control the security of their population.

The agenda of infectious diseases will never be finished—in Sub-Saharan Africa, communicable diseases represent two-thirds of all the deaths there—and more than one-third in Asia. This represents major health problems. The data are imposing in terms of the burdens of infectious diseases, the cumulative deaths from AIDS—the fact that TB is a co-conspirator with AIDS and kills vast numbers of people. Beyond AIDS, there is the recurrent issue of emerging infections. The Institute of Medicine (IOM) has documented 32 new infections that have either infected humans for the first time or recurred in humans when they were thought to be eradicated.

Another major agenda in global health is the epidemic of chronic disease. When children do not die at the age of five because we can protect them—to some extent against infectious diseases—they will live to develop chronic diseases. There will be a boom of aging and a rapid increase in chronic diseases—in countries that can’t even control most of their communicable diseases.

A quote that has rung salient with me was in an interview Dr. Bloom did in *Nature*. When he was asked what could be done to improve global health in the world, his comment was that the most important thing the United States could do in global health would be to create one hundred times more collaborations with scientists and universities in developing countries—a clear mission and a direction for all of us at Fogarty and NIH!

Upcoming Program Announcements and Requests for Applications

Program	Contact	Receipt Date	Eligibility
Brain Disorders in the Developing World (BRAIN)	Kathleen Michels, PhD mickelsk@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 mickelsk@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.

Fogarty Ellison Fellows Share

The Ellison Medical Foundation offers a unique opportunity for highly motivated U.S. medical and doctoral students to experience mentored research training at top ranked NIH-funded research centers in Bangladesh, Botswana, Brazil, China, Haiti, India, Kenya, Mali, Peru, Russia, South Africa, Tanzania, Thailand, Uganda and Zambia.

Into its fourth year, this highly regarded and successful program is inspiring the next generation of U.S. global health researchers, as Dr. Roger I. Glass, Director, FIC, has stated. Here Ellison Fellows share personal insights and photos.

“Everything is going well here in Salvador. The research is great—I’m running my own clinical trial...I have a publication coming out soon in *American Journal of Tropical Medicine and Hygiene*. Not my research—too early for that, but a tribute to the field workers who keep things running out at rural clinics. It’s titled, “Committed Technician Making a Difference in Corte de Pedra, Brazil.” (Brazil, Salvador)
Tracey Newlove



Favelas, Brazil

“Brazil was steaming hot, violent, crime ridden, over run with tropical diseases and my research was a ton of work. Despite that, and maybe because of it, the Fogarty Ellison Fellowship was by far the most important thing I did in medical school. The memories and experience will last a lifetime.”
Peter “Buzz” Marcovici

“After an extraordinary year as a Fogarty Ellison Fellow, I can say with confidence that the year has been a real “eye opener” for me. Through the program, I found one of the most rewarding experiences personally was the impact we had on Botswana.” Raabya Rossenkhan

“So amongst all the fanciful sights and sounds as well as expansive beaches and wondrous wildlife, Tanzania to me will continue to be about the beauty of its people and children, like Rosie, who deserve a better chance to live life to the fullest. My journey begins anew, with the knowledge that through hard work and great perseverance, a difference can be made to help those most in need.”
Jeffrey Blander



Dar es Salaam, Tanzania



Chennai, India

“My experience in Tanzania has solidified my interests in infectious disease medicine and global health.” Paul Drain

“These skills can’t be learned in a book, and for better or worse, they must be lived through day-by-day. All the best international health researchers have lived through the joy, and sometimes the frustration, of personally working abroad (Brazil, Salvador).”
Aron Ungar

As a result of the Fogarty Ellison Fellows, I now have an avid interest in global health (Chennai, India).” Sonia Singh

“I am attaching the photo of the World AIDS Day 2006 event that I planned in Nanjing, China.”

“This image was on the front page of *Xiandai Kuaibao*, a Nanjing newspaper that reported on the events. The event was hectic and swarming with people. In the photo, I am the Chinese American woman in a dark blue coat and red hat (top right corner).

Before us is an installation piece that we set up in a large public square in central Nanjing. There are 65 pairs of Chinese slippers laid out in a ribbon and represent the 65 wan or 650,000 people in China believed to be infected with HIV (statistics are from the 2006 reports issued by UNAIDS, WHO and China Ministry of Health).

The 14 red slippers represent the 14 wan or 140,000 people who have been tested and know that they are infected. The 50 blue slippers represent the 50 wan or 500,000 people who are infected but do not know that are infected because they have yet to be tested. And the 1 pair of child size orange slippers represent the 1 wan or 10,000 children infected with HIV.

Attached to each pair of slippers is a small note with an HIV/AIDS

fact or a short story of someone with HIV in China. Passersby were free to walk around the slippers and read the notes.” Susan Wong



Nanjing, China

Fogarty Framework Programs in Global Health

Continued from page 1



Dr. Kathy Michels, FIC, and Dr. Richard Mollica, Massachusetts General Hospital

The models presented used a variety of approaches in parallel including: multidisciplinary courses and seminars; hands on experiential opportunities with international partners; competitive faculty grants to support new course development; and carrying out networking and groundwork for new collaborations for global health research.

The use of virtual co-laboratories to prepare and deliver courses jointly with faculty and students in other countries was talked about. Hosting joint U.S.-foreign degree programs in other countries to make them more affordable

for developing country participants; global health conferences and seminar series; and the design of new concentrations and degrees in global health for students—from undergraduate through professional level—were discussed.

The new programs have already attracted considerable student and faculty interest and enthusiasm, with fully and oversubscribed courses and activities.



Dr. Xu Quan, Fudan University, China, and Dr. Peggy Bentely, University of North Carolina, Chapel Hill

Several guests also participated in the network meeting: Drs. Mark Weiss, Linda Lopez and Rita Tuetonico from the National Science Foundation; Dr. Harrison Spencer from the Association of Schools of Public Health and Dr. David

Korn from the Association of American Medical Colleges. Dr. Nils Daulaire, President of the Global Health Council, made a presentation on the work of, and resources available, from that organization.

The Framework Program is co-sponsored by the Fogarty International Center, with the National Cancer Institute, the National Center on Minority Health and Health Disparities and the National Institute on Deafness and Other Communication Disorders. There are currently 19 full framework programs and seven planning grants. Representatives from every program attended the meeting. For more information visit:



Dr. Ephata Kaaya, Muhimbili University, Tanzania and Dr. Jeffrey Griffiths, Tufts University

International Health Research Activities Report

Continued from page 1

In consultation with the scientific community, external stakeholder groups and IC international representatives, DASPA has developed a scope and timeframe for the report.

The first volume is scheduled for release in June 2007. It will focus on extramural international research and training investments made in fiscal years 2004 and 2005. In part, due to production time constraints, the plan excludes intramural research from the analysis. However, this may be considered for inclusion in the next report, scheduled for release in 2009.

Given the importance of equitable, collaborative partnerships in advancing international health research and improving health outcomes throughout the world, only research projects that involve a foreign component will be included for now.

By excluding certain classes of research, the project (as designed) will result in an underestimate of the ICs' total global health research spending, which *Research!America* defines as health sciences research of relevance to low and middle income countries.

To ensure that data uncertainties and report limitations are clearly communicated to the public, definitions and methodologies will be made available electronically.

Depending on the outcomes of the 2007 report, classes of research and research training reported in future years may be expanded upon.

The first report is to be 75 to 100 pages in length; it will be published in print and electronic media, to facilitate access by individuals and institutions around the globe.

The report will rely heavily on informational graphs and tables, with limited narrative. Data will be aggregated along multiple dimensions, including country and region of investment, disease code and IC.

This report represents a renewal of the "Annual Report of International Activities" which Fogarty published from the 1970s through 2000.

“Defining and Defeating the Intolerable Burden of Malaria: Progress and Perspectives”

Upcoming supplement to the *American Journal of Tropical Medicine and Hygiene*

What is malaria and what contribution does this disease make to overall and childhood deaths? How are co-morbidity (malaria associated with other diseases) and co-mortality considered?

Most importantly, have countries, the Global Malaria Program (GMP), and other initiatives defined these burdens

accurately? Have the strategies and interventions used decreased the toll? What are the new scientific and control initiatives to combat malaria and define its decrease?

Authorities on these topics from malarious countries, the GMP, and research and control organizations will address clinical issues; epidemiology; control; evaluation; drugs; vectors; genetics; immunology and vaccines; and international cooperation.

This collection of more than 40 plus papers, many of which were presented at a symposium at the 4th Multilateral Initiative on Malaria (MIM) Pan African Conference held in November 2005 in Yaoundé, Cameroon, will complement and go beyond companion supplements to the *American Journal of Tropical Medicine and Hygiene* on the malaria burden published in 2004 (v.71, No.2, Suppl;pp1-282) and 2001 (v.64, No.1-2 Suppl;pp1-106).

The editors of the malaria supplement are Joel Breman of the Fogarty International Center (FIC); U.S. National Institutes of Health, Martin Alilio of the Global Health, Population and Nutrition Department, Academy for Educational Development, U.S.; Nicholas White of the Mahidol University, Thailand and Welcome Research Unit, Oxford University, U.K.; and Cherice Holloway of the Fogarty International Center (FIC), U.S. National Institutes of Health.

Foreign Tracking System Reaches All Corners of the Globe

Fogarty’s Division of International Relations (DIR), working with the U.S. Department of State, has successfully extended the use of the Foreign Tracking System (FTS) out to 70 percent of all US Embassies worldwide.

This number encompassed nearly all countries where NIH has a substantial research investment—124 countries use FTS—opposed to 30 countries only three months ago. DIR anticipates that all U.S. Embassies worldwide will be using the system in early 2007.

Embassy staff can log on to the web-based system, review a project, and clear directly through the FTS. Feedback from Embassies using the system has been overwhelmingly positive, allowing them to review NIH research projects, from a foreign policy perspective, within days—or even hours. The review time is a marked improvement over the previous cable-based “1820” system, which would take weeks, or months, for ICs to obtain an embassy concurrence.

While it is clear that the level of NIH international research has been rapidly increasing over the past decade, NIH’s ability to report those international collaborations, until now, had been difficult since there was no central repository for the aggregated international NIH data. With NIH’s

international research portfolio growing on a yearly basis, the need for NIH to report on its foreign collaborative activity has never been greater.

As a database, FTS allows users—for the first time—to track all NIH-funded extramural research conducted in foreign countries across ICs.

FIC will address the public’s growing interest in the NIH international portfolio by using the FTS data to assist in the creation of the new International Health Research Activities Report. The Report (featured in this issue of GHM) will detail the on-going NIH investments at foreign sites worldwide.

The International Health Research Activities Report (formally known as the Annual Report of International Activities), was last published in FY 2000, and was largely halted due to the decentralized nature and variable format of data available from the 27 ICs.

With all ICs now submitting data into the FTS, and the ability to verify foreign funding amounts in real-time, FIC has solved the problem of how to accumulate this information, accurately, in one place from all ICs.

Audiences for the new report will range from internal use within the NIH, foreign governments and the US Congress.

The FTS, in future years, could also be used as a model for other HHS agencies to track and report their own international research portfolios.

DIR’s Kevin Bialy, Acting International Program Officer for South America, has been conducting training sessions across the NIH campus to introduce some of the ways in which ICs can report on their international activities as well as the improvements of the FTS over previous foreign policy clearance mechanisms.

The next steps in making the FTS more useful for ICs and non-NIH users in an “FTS 2.0” is to incorporate changes recommended by the ICs and US Department of State over the past two years.

Further versions of the FTS will contain reporting mechanisms that will provide a full summary of NIH foreign activity in a country with one button reports, interactive training modules, and refined keyword searches for NIH disease research within a specific country.

FIC Strategic Plan—Global Perspectives

“How will we train the next generation of U.S. and foreign investigators in Global Health?”

“What can Fogarty do to stimulate Global Health Research in the U.S. and abroad?”

“What is the role of “Implementation Science” in accelerating the application of Global Health research findings?”

The new FIC Strategic Plan will address these and other questions and guide the Center activities in the next five years. The Strategic Planning process for Fogarty began in earnest in August of 2006, just a few months after Dr. Roger I. Glass came on board as the Director. Dr. Glass took up the reins to put Strategic Planning process “on a fast track.”



Dr. Roger I. Glass asked stakeholders for suggestions regarding FIC branding

There were initially two internal Fogarty retreats in August and September 2006. Next, Strategic Planning was discussed with the FIC Advisory Board. In parallel, a consultant analyzed the FIC portfolio, examined the current

landscape of global health research and identified gaps in global health research.

On the international front, two Strategic Planning sessions were held at Forum 10 of the Global Forum for Health Research in Cairo, Egypt in November 2006, attended by Dr. Karen Hofman and Dr. Linda Kupfer.

Representatives from 16 countries, 13 of them developing countries, attended Fogarty’s sessions including: South Africa, Cameroon, Tanzania, Philippines, India, Nepal, Pakistan, China, Colombia, Mexico, Ecuador, Lebanon, Egypt, United Kingdom, United States and New Zealand.

To gain additional input, Fogarty asked for comments to specific question posed on our website. Our website generated 82 responses, 43% of which were from 12 developing countries. Fifty-four of the respondents to the website were from academic institutions, 11 were FIC trainees, 38 were FIC awardees.

Dr. Kupfer discussed Strategic Planning with IC International Representatives at a recent meeting and with PIs and Co-PIs from the Fogarty Framework Program for Global Health at their network meeting. She received many thoughtful suggestions and comments.

Finally, in December, FIC convened a Strategic Planning Stakeholder

Conference held on the NIH campus in Bethesda, MD. Attendees knowledgeable in Global health included stakeholders from the World Health Organization (WHO), Centers for Disease Control and Prevention (CDC), other NIH ICs and FIC-supported PIs.

There, Dr. Glass, provided impressions of “Fogarty from the Field,” and a perspective on “Fogarty: past, present and future.”

Dr. Kupfer, the organizing force behind the Strategic Planning Meeting, offered the Stakeholders a view of the Plan “from the starting gate to the finish” and a summary of recurrent themes—taken from previous meetings and conferences.

These included the need for U.S. researchers and students to be exposed to Global Health research early in their training in order to develop an interest in the field; the need for long term support of training programs for developing country scientists to build developing country research capacity; and that the field of “Implementation Science” deserves a place in the FIC portfolio.

At the end of the meeting, Dr. Glass asked for suggestions regarding FIC’s brand. A vote from the stakeholders determined that “Science Anywhere Helps People Everywhere” was a winning entry.

The Plan will be launched in July 2007.

Across the Center

Global Health Lecture



Poster by FIC's Julie Marquart

Dr. Barry Bloom, Dean of the Harvard School for Public Health, a world-class immunologist with a passionate commitment to understanding and combating global infectious diseases, was honored speaker at the 2006 David E. Barmes Global Health Lecture.

To hear Dr. Bloom's talk, entitled "Agendas and Architecture of Global Health Research," visit: <http://videocast.nih.gov>



Dr. Raynard Kington, Dr. Antonio Scarpa, Dr. Elias Zerhouni, Dr. Barry Bloom, Dr. Roger Glass, Dr. Anthony Fauci

Global Health Publications



As profiled in the April 2006, edition of Global Health Matters, a trio of books from The Disease Control Priority Project (DCPP) were launched at a global health conference in Beijing, China. The books were published December 2006.

The DCPP—a science, economics and public health group consisting of Fogarty, NIH, World Bank, and the World Health—publications outline a picture of the current and future state of global health—well over 1 billion people will die in coming decades of tobacco-related illnesses and preventable diseases such as malaria, HIV/AIDS and cardiovascular disease.

The books offer "best health buys" for developing countries—the most crucial, proven, and cost-effective health care investments for attacking these health crises.

"Our analyses show that you don't have to be rich to be healthy. Individuals, communities, and nations can improve their health by making good choices based on evidence," said Joel G. Breman, M.D., D.T.P.H., Senior Scientific Advisor, Fogarty International Center, NIH.

To create and download your custom book or to purchase a copy of the DCPP publications visit: <http://www.dcp2.org/page/main/Home.html>

Dick Miller Retires

Congratulations to Richard (Dick) Miller, Executive Officer, Office of Administrative Management and International Services. Dick retired January 3, after 41 years of service—15 of which were with Fogarty!

Bioethics Training Program in Egypt

Karen Hofman, MD, Director of DASPA, traveled to Cairo, Egypt this past October to represent FIC at the 10th Annual Global Forum for Health Research.

Dr. Hofman presented her paper entitled "Biomedical trends in sub-Saharan Africa (1995-2004): strengthening the culture of research to promote health" and also participated in a variety of other activities related to Fogarty including the Strategic Plan.



Dr. Nahed Kottop, Dr. Heba Kassem, Dr. Nahed Moustfa, Dr. Henry Silverman, UMD Program Director, Dr. Maged El-Setouhy, Co-Director of Egyptian Bioethics Program and Professor at Ain Shams University, Cairo

Dr. Hofman visited with members of the University of Maryland's Bioethics Training Program in Egypt, a program sponsored by Fogarty in collaboration with the Egyptian Ministry of Health and Population.

Three scholars of this particular Bioethics Training Program—managed by Fogarty Program Officer Dr. Barbara Sina and led by Dr. Henry Silverman at the University of Maryland together with Dr. Maged El-Setouhy from the Ain Shams University in Cairo—each presented a poster presentation at the Forum.

Dr. Kottop, lecturer of critical care nursing at Mansoura University, delivered a presentation entitled, "Teaching health research ethics: are we ready to start?"

Dr. Kassem, lecturer of medical genetics at the Alexandria University, presented her paper entitled, "Beyond research ethics committees: acceptance by investigators and involvement of the community."

Dr. Moustafa, professor of forensic medicine and clinical toxicology at the Suez Canal University, presented her paper entitled, "Developing research ethics committees: implications for global health."



Dr. Nahed Moustfa, a 2005 Scholar of the Egyptian Bioethics Training Program, shares a laugh with Dr. Karen Hofman during break

Dr. Silverman acknowledged that other Egyptian scholars from the Fogarty Bioethics Training Program have made presentations at bioethics meetings and have established or strengthened institutional research ethic committees throughout Egypt.

Dr. Karen Hofman confirmed that, "The Bioethics Program has clearly had a huge impact. Many individuals in leadership positions in Egypt have received a certificate in bioethics through the Fogarty program."

Fogarty International Center
National Institutes of Health
Building 31, Room B2C29
31 Center Drive, MSC 2220
Bethesda, MD 20892-2220 USA
www.fic.nih.gov



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Global Health Matters

Published by the U.S. Department
of Health & Human Services

News from the John E. Fogarty
International Center, part of the
National Institutes of Health

Managing Editor
John Makulowich
Editor
Linda Perrett

Fogarty International Center
31 Center Drive, Room B2C29
Bethesda, MD 20892-2220 USA
+1 301 496-2075
<http://www.fic.nih.gov>

Comments & Corrections to:
ficinfo@nih.gov

Volume 5, Number 1
February 2007

NIH Publication No. 06-5368



What is Implementation Science

According to the new *Journal of Implementation Science*, which was launched by BioMedNet in 2006, “implementation research is the scientific study of methods to promote the systematic uptake of clinical research findings and other evidence-based practices into routine practice, and hence to improve the quality and effectiveness of health care”.

Similarly, implementation science is defined as research to develop and test effective and efficient methods, strategies and models for completion of research-tested health interventions. Within public health and clinical practice settings, these include prevention, early detection, diagnostic, treatment, behavioral change and quality of life improvement.

This area of applied health science research, also called type II

translational research, brings evidence-based medicine and public health practice from the “NIH bedside” to the “real world”. It draws from multiple disciplines, including biostatistics, clinical research, public health, behavioral research, epidemiology, economics, quantitative social science, and social medicine.

It is more applied than basic clinical research, yet broader than operational or health systems research. In its most rigorous form, implementation research uses experimental designs (including randomization and controls) to study strategies for customizing and adapting interventions to various conditions.

Examples of implementation research include:

⇒ Studying the safety and effectiveness of simultaneously delivering multiple interventions.

Example: Testing combined care models for co-morbidities like HIV and TB or the poly-pill for CVD, hypertension, and hypercholesterolemia.

⇒ Developing methods for integrating new interventions into the delivery of existing ones. Example: Combining medical, public health and environmental malaria control strategies.

⇒ Adapting a research-tested intervention to a novel, developing country setting. Example: Customizing a U.S.-based children’s psychological intervention for HIV/AIDS orphans in Uganda.

