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The CAPS International Core

The principal objective of the International Core at the Center for AIDS Prevention Studies (CAPS) is to facilitate high quality international research by creating effective and productive partnerships between CAPS scientists and HIV prevention researchers from developing countries. The International Core brings together CAPS scientists and alumni of the Collaborative Prevention Research in Developing Countries Program, a training program for new developing country researchers (described below). CAPS has successfully developed a broad portfolio of small-scale international research projects conducted by CAPS scientists and Program alumni. Together we have made important contributions toward understanding how to prevent HIV transmission and how to care for the HIV-infected in the developing world.

The Need for International Prevention Research

Of the over 33 million people infected with HIV worldwide, 96% live in the developing world. Ninety-eight percent (98%) of the 5.8 million annual new HIV infections occur in developing countries. As an institution dedicated to developing prevention technology to prevent HIV transmission and to identifying new ways to care for people who are already infected, CAPS has an important role to play in addressing AIDS in the developing world. This is especially true given that the large majority of new HIV infections occur in regions where CAPS scientists have extensive expertise, such as sub-Saharan Africa, South and Southeast Asia, and Latin America.

Many of the prevention issues facing the United States are mirrored in the developing world. For instance, sexually transmitted diseases (STDs) facilitate the transmission of HIV, both among heterosexuals in the southeastern United States as well as in Africa. Similarly, epidemics among injection drug users in Thailand and among men who have sex with men in Brazil are similar to their U.S. counterparts and have proven to be extremely fertile grounds for cross-cultural

examination of risk factors and trials of new prevention technologies.

HIV prevention lessons from the developing world can be translated to new approaches to HIV prevention in the U.S., and lessons learned in the United States can be applied internationally. There are at least three reasons for this:

- Many of the populations with whom CAPS scientists work, especially in Latin America and East and Southeast Asia, migrate in large numbers to the United States. Interventions that work in the countries from which recent immigrants come will likely work in immigrant communities in the United States; and interventions developed in immigrant communities in the U.S. may be applicable in immigrants' home countries.
- The issues of poverty, gender norms, and substance use cut across the large HIV epidemics, be they in Brazil, Zimbabwe, India, Vietnam, or the United States. CAPS' work examining these common themes – for instance, studies of the role of beer halls in Zimbabwe as “vectors” of HIV transmission – can identify rapidly applicable lessons for HIV prevention in the United States.
- Given the high HIV infection rates in many of the countries in which CAPS scientists work, we have the ability to assess interventions rapidly. The pioneering work of CAPS faculty in developing methods for estimating HIV incidence allows us to use HIV incidence itself (rather than surrogate STD or behavioral markers) as a measure of the success of behavioral interventions. This approach can substantially improve the accuracy of assessments of prevention programs.

Accomplishments of the CAPS International Core

The CAPS International Core has fostered a range of important HIV prevention research and expanded the portfolio of prevention research being conducted by researchers at the University of California, San Francisco (UCSF).

Faculty research

Over the past two years, CAPS has expanded its focus beyond training and small-scale international scholar-based research to initiate larger-scale research projects conducted principally by International Core faculty in collaboration with Program alumni and their academic and governmental research groups. Several recently funded research projects are outlined in Table 1.

Table 1. Current International Core Faculty Research Projects

Country	Investigators	Title	Funding Agency
Brazil	Drs. Coates, Page-Shafer	Molecular Epidemiology of HIV in Santos	NIMH OAR supplement (RO3)
China	Drs. Choi, Qu*	Behavioral Surveillance of STD Clinic Patients in China	Japanese Ministry of Health and Social Welfare
India	Drs. Lindan, Ekstrand, Setia*	Evaluation of an Intervention for Male STD Patients in Mumbai	NIAID RO1
India	Drs. Mandel, Krishnan	Family Approaches to HIV Counseling in South Asia	Levy-Strauss Foundation
Japan	Drs. Mandel, True, Onizuka	Japanese Nurse AIDS Training Project for AIDS Prevention	Japanese Foundation
Peru	Drs. Coates, Cáceres*	Multisite HIV Collaborative Intervention Trial	NIMH, U10
Thailand	Drs. Visrutaratna,* Mandel	Educational Intervention for High-Class Sex Workers in Thailand	Japanese Foundation for AIDS Prevention
Vietnam	Drs. Lindan, Mandel, Thinh*	HIV Counselor Training and Development of Anonymous HIV Testing Sites in Ho Chi Minh City	World AIDS Foundation
Zimbabwe	Dr. Padian	HIV and Reproductive Health Studies in Zimbabwe: the University of Zimbabwe-UCSF Collaborative Program in Women's Health	CDC and NIAID-HIVNET
Zimbabwe	Drs. McFarland, Fritz	HIV Seroprevalence, Seroincidence, and Sexual Risk-Taking Behaviors among Male Beer Hall Patrons in Harare	NIMH OAR supplement (RO3)
worldwide	Dr. Coates	HIV Prevention Trials Network	NIAID, NIMH, NICHD, NIDA

* Alumnus of Collaborative Prevention Research in Developing Countries Program

Collaborative Prevention Research in Developing Countries Program

Since 1987, CAPS has conducted a collaborative HIV prevention research program for scientists from the developing world. The program has trained 90 scholars from 32 countries, completed 65 pilot projects and 15 “innovative interventions,” obtained independent funding for 19

follow-up studies, and published 117 papers and 354 abstracts. The CAPS model of collaboration is unique in that it provides training, pilot study funding, and mentoring to selected scientists from developing countries and encourages them to shape a prevention and care research agenda relevant to their country. CAPS training has four components: (1) the basic summer program, (2) “innovative interventions,” (3) writing sabbaticals, and (4) formal graduate study at the School of Public Health, University of California, Berkeley, leading to advanced academic degrees.

Many Program alumni have gone on to successful academic, clinical, and public health careers, and have remained intimately involved in the HIV epidemics in their countries.

CAPS alumni have assumed prominent roles in their national AIDS control programs as well.

International Core Plans for the Future

Looking to the future, the International Core will expand its work facilitating HIV prevention research and training new researchers.

Facilitating international HIV prevention research

The International Core continues to build on the pilot studies and “innovative intervention” projects developed and conducted by Program alumni in partnership with CAPS faculty. Research ideas from scientists who are a part of developing country societies can provide extremely valuable insights into the design of prevention interventions for these countries. An example is found in the Case Study (Figure 1).

The International Core will also work to facilitate new prevention research by:

- identifying potential research collaborators in developing world settings
- conducting a series of internationally focused workshops on how to write grants, using senior faculty members at CAPS as mentors for junior faculty and fellows

Figure 1: Case Study

Alcohol as a Risk Factor for HIV Transmission in Sub-Saharan Africa

Dr. Ron Stall, while at CAPS, originally described the links between alcohol consumption, unsafe sexual practices, and HIV transmission in gay men in San Francisco. This association was also observed by UCSF scientists in a cohort study of factory workers in Harare, Zimbabwe. Researchers found that 54% of HIV seroconversions were attributable to alcohol-related unsafe sex. CAPS sent a fellow to Harare in the summer of 1999 to begin the ethnographic and logistical work needed to design an intervention centered on beer halls in Harare. CAPS researchers and Zimbabwean Program alumni and colleagues have recently been awarded a supplemental grant from the U.S. National Institutes of Health to explore the feasibility of using the recently developed “detuned” EIA HIV antibody tests to measure rates of recent HIV infection among beer hall patrons. (Detuned HIV antibody tests help researchers determine, from a single blood specimen, whether infections occurred within the last six months). If the study is successful, the International Core plans to seek grant funds for a full-scale randomized controlled intervention trial. This trial will likely test interventions with both beer hall patrons and the female sex workers who work near the beer halls. The interventions may prove to be an important new approach to HIV prevention in the developing world, where alcohol-related unsafe sex is a significant risk factor.

Many of the prevention issues facing the United States are mirrored in the developing world.

- providing core scientific support services to assist in the actual production of grant applications
- providing scientific support for grant development and field implementation
- developing a close working relationship with the National Institutes of Health-funded HIV Prevention Trials Network to propose and fund new prevention trials in the developing world
- maintaining a state-of-the-art inventory of intervention technologies and providing access to systematic reviews of prevention interventions in close collaboration with the Cochrane Collaboration’s Collaborative Review Group on HIV Infection and AIDS, also based at UCSF.

Over the next six years the International Core will:

- continue its successful model of research training for scientists from the developing world
- recruit TAPS fellows interested in international research
- link CAPS with developing world institutions.

The CAPS International Core continues to foster state-of-the-art prevention science that can be used to design and implement HIV prevention interventions in regions hardest hit by the AIDS epidemic.

Training new international scientists and TAPS fellows

A second focus of the International Core is to maintain and expand its historic focus on research training for developing world scientists and for Traineeships in AIDS Prevention Studies (TAPS) fellows. (The TAPS program supports U.S. postdoctoral fellows for two or three years of training in epidemiology and public health, with special emphasis on conducting AIDS prevention research.)

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Materials Available

Further information on HIV prevention for developing countries is available on the HIVInSite website: <http://hivinsite.ucsf.edu>

Information is also available by contacting:
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