

# Momentum

MAY 2003

## AIDS in India: Attacking the epidemic on many fronts

A decade ago, India began efforts to defend itself against the possibility of a full-fledged AIDS epidemic. The disease exacts an enormous toll of the close to four million Indian citizens living with HIV/AIDS, but India so far has kept its infection rate at less than one percent of its adult population. In raw numbers, only South Africa has more adults living with HIV/AIDS—4.7 million, a figure representing a devastating 20 percent of that country's adult population. According to UNAIDS/WHO, preventing an epidemic of similar magnitude in India, with several of its 28 states already having prevalence rates of over one percent, will require "well-planned and sustained interventions on a large scale."

As a result of the Population Council's track record in HIV/AIDS research, the European Community in 2000 asked the Council to

develop a small grants program to build research capacity in India. The "HIV/STI Prevention and Care Research Program" is designed to identify or develop evidence-based, affordable, and appropriate strategies that could prove effective in containing the spread of AIDS in India.

In 2001, a program team led by clinical epidemiologist Heiner Grosskurth and demographer Gurumurthy Rangaiyan assembled an advisory group of 25 experts—program managers, behavioral scientists, clinicians, and others. They developed a list of priorities that included investigating aspects of prevention, care, and support. A call for proposals produced 155 concept papers. Nine of the proposed studies were chosen for implementation, including:

**Overcoming Barriers.** The majority of Indians live in rural areas where physicians are less available. Most people with sexually trans-

mitted infections (STIs) seek help from untrained, non-physician health care providers. Because STIs—and possibly reproductive tract infections (RTIs)—have been identified as factors in accelerating HIV transmission, addressing this gap in public health care has taken on new urgency. The Population Council, the Sarojini Naidu Medical College at Agra, and the Christian Hospital Chandra in Tehri Garhwal are collaborating to identify barriers to improving care for STIs/RTIs in rural areas.

**Improving Hospital Care.** The few Indian hospitals that can and do treat patients with HIV/AIDS are often overburdened. The Council is working with the Christian Medical College Hospital in Vellore to develop and evaluate a physician training curriculum aimed at improving HIV clinical care in local hospitals. Trials will be conducted at 25 hospitals in southern India.

**Improving Treatment.** Research by the Council, the All-India Institute for Medical Sciences in New Delhi, and the Christian Medical College Hospital in Vellore aims to improve the treatment of STIs and RTIs in women. This project has been selected by the World Health Organization to evaluate the efficacy of WHO's new, faster STI tests.

**Training Physicians.** In urban areas, the majority of patients seek care for all types of health problems from private-sector physicians, most of whom were trained before the advent of AIDS. The Indian Medical Association,

*continued on page 4*

## Health benefits of Mirena®

Five million women in more than 100 countries use Mirena for long-term, reversible contraception. Mirena is the intrauterine contraceptive system developed by the Population Council in cooperation with its International Committee for Contraception Research and the pharmaceutical company Leiras Oy (a subsidiary of Schering AG, recently renamed Schering Oy).

For some time it has been thought that Mirena also is effective as a means of non-surgical management of excessive menstrual bleeding, which can be burdensome, lead to anemia, or require surgery, including hysterectomy. Investigations by scientists in several countries in Europe and in China have found this benefit, and a recent study by Population Council researcher Juan Díaz and his colleagues at Universidade Estadual in Campinas, Brazil, has confirmed Mirena's efficacy in helping some women avoid surgery.

The study, involving 44 women with heavy menstrual bleeding, found that six

months after insertion of Mirena, 35 of the women had significant reduction of both blood loss and anemia without resorting to surgery. Investigators seeking to identify the physiological basis of Mirena's ability to moderate menstrual bleeding have theorized that the progestin hormone it releases, levonorgestrel, may trigger a normal cellular mechanism called apoptosis, causing the lining of the uterus to thin, lessening blood loss. Progestins such as levonorgestrel are known to decrease the thickness of the endometrium (the internal layer of the uterus). The local release of this progestin induces cellular changes in the tissue, which then becomes thinner.

The Mirena intrauterine system, which provides five years of contraceptive protection, was introduced in the United States in 2001 by Berlex Laboratories, another Schering AG subsidiary. It has been available for use as a contraceptive in Europe since 1990.

### HIV/AIDS IN INDIA

Total population	1,027,000,000
People living with AIDS	3,970,000
Adults (15–49)	3,800,000
Women (15–49)	1,500,000
Children (0–15)	170,000

Overall adult rate: 0.8 percent

Percentage of national AIDS cases reported by only 10 states: 96

Source: UNAIDS/WHO Epidemiological Fact Sheet.  
All numbers are estimates as of the end of 2001.

## Mandela Children's Fund

continued from back cover

Evaluating the various approaches taken by cooperating Goelama partners will help the entire region develop effective programs that can be standardized and "scaled up." The Nelson Mandela Children's Fund, Horizons, and Frontiers will disseminate the research findings at local, national, and international workshops and conferences to aid efforts of those seeking to answer President Mandela's call to action.

### CHILDREN ORPHANED BY AIDS

Children are often the AIDS pandemic's final victims even if they never contract the disease. The number of children orphaned by AIDS is staggering—in Ethiopia: 989,000; in Kenya: 892,000; in South Africa: 662,000. A total of 13,440,000 children were orphaned by AIDS worldwide by the end of 2002, according to UNICEF.

The emotional trauma of losing family members to AIDS, severe poverty, and the loss of educational and legal rights all contribute to the misery and danger in which these children live. UNICEF reports that food consumption drops 40 percent or more in affected households. Children leave school to care for their sick and dying parents, and many never return. Once orphaned, these often socially ostracized, financially desperate youngsters are much more likely to be abused sexually or forced into sex work than others their age. AIDS orphans are also at far higher risk of HIV, other sexually transmitted infections, and unwanted pregnancies than their peers.



Photographer: Melissa May

UNICEF reports that worldwide, over 13 million children were orphaned by AIDS by the end of 2002.

## Population Council alumni association

A number of Population Council alumni—former and current staff, fellowship recipients, and members of the board of trustees—have expressed interest in forming an alumni association.

The primary purpose of the association would be to provide a forum for social and professional activities to bring together members of the worldwide network of population scientists and individuals who have helped further the Council's mission to improve human well-being. Information about progress in organizing the association will be provided in future issues of *Momentum*. We welcome your ideas and suggestions about the type of programs that would be of particular interest to you. Please contact Ruth Kalla Ungerer, director of development, at 212-339-0515 or [rungerer@popcouncil.org](mailto:rungerer@popcouncil.org).

## What is missing in demographic research?

The United Nations projects that most of the world's population growth over the next quarter-century will take place in the cities of developing countries. Experts from many fields—urban planners, economists, and international health experts—have been documenting patterns of change. Yet, as Population Council economist Mark Montgomery pointed out in August of 2002 to the Governing Board of the National Academy of Sciences, demographers seem to have virtually ignored this anticipated shift in world population.

The last systematic assessment of the urban demography of less-developed countries was made more than 20 years ago. Since then, according to Montgomery, demographers have focused on other, arguably less crucial aspects of demographic behavior, such as fertility studies and micro-studies of birth intervals in families.

In 1999 the Committee on Population of the National Academy had created a panel on urbanization in less-developed countries to address the puzzling neglect of such dramatic population change. (Montgomery co-chaired the panel with Richard Stren, a political scientist at the University of Toronto.) The 14-member international panel was drawn from the fields of economics, political science, sociology, health, anthropology, geography, and urban studies and met over the course of the next three years.

The book that grew out of these meetings—entitled *Cities Transformed*, to be published by the National Academy Press in May 2003—examines the effect of urban life on fertility, mortality, child health, migration, and sexual behavior. The book's main message is that if demographers are to make a contribution to urban research, their research tools must be updated. Although important in many respects, the two main sources of demographic information—the UN population data by city published in *World Urbanization Prospects*, and the USAID-funded Demographic and Health Surveys (DHS)—do not provide adequate information for demographers to analyze changes occurring in the smaller cities of developing countries where nearly half of the urban population live. *World Urbanization Prospects* examines only large cities (with populations over 750,000 people) in any detail. DHS data do not include geographic indicators to link information to neighborhoods and cities, and these surveys are limited in their usefulness in measuring access to water supply and other urban services.

The authors of *Cities Transformed* point out that demographers have tended to neglect smaller cities. Notably underserved in terms of water supply, electricity, and good sanitation, populations in the smaller cities are also less educated than those of larger cities; fertility rates are higher; and measures of reproductive and child health, as a rule, are worse. Residents of cities generally have higher standards of living than rural residents. Yet, the urban poor living in slums and shantytowns are decidedly worse off than their peers in the countryside. Among other things, the urban poor have greater unmet needs for contraception than do other urban residents.

As the National Academy panel underscored, the need for accurate population data is growing even more acute as countries decentralize their health programs and governmental systems. State, regional, and municipal governments, along with nongovernmental organizations and the private sector, are being given many functions that were formerly performed by national governments. Practical application of the findings of demographic research holds the key to good local policymaking.

## Carraguard™ update: New trial, new staff

The Population Council is gearing up for the next phase of the clinical trials of its lead candidate microbicide, Carraguard. Designed to evaluate the product's effectiveness in preventing the transmission of sexually transmitted infections, including HIV, the four-year investigation will be conducted in three southern African locations and involve at least 6,000 women. Microbicides have great potential as a valuable tool in the battle against the AIDS epidemic. A vaginal microbicide gel would provide the user with protection from disease for which she would not necessarily need her partner's cooperation.

The Council has hired two accomplished researchers to manage the trials:

**Pekka Lähteenmäki** will oversee the clinical testing of Carraguard. He comes to the Council from the pharmaceutical company Leiras Oy, where he was vice president of research and development, specializing in the technology of contraceptive delivery. He holds an M.D. and a Ph.D. in reproductive physiology and has written or co-authored more than 100 articles in peer-reviewed journals. Lähteenmäki has a long-time relationship with the Council, including service as a consulting scientist for eight years.

**Stephanie Skoler** will be responsible for the day-to-day implementation of the trials. For the past two years she has managed a nine-site international case-control study, WECARE, for Mount Sinai School of Medicine in New York. She holds an M.P.H. in epidemiology and a certificate in "Economics and Financing of Health Care in Developing Countries" from Boston University.

"Worldwide, women are now being infected with HIV at a higher rate than men," said Elof Johansson, a Population Council vice president and director of its Center for Biomedical Research, "and Carraguard has the potential to save a great many lives. Lähteenmäki and Skoler bring to this vital research project first-rate credentials in science and in management."

For more information about the Population Council's microbicide program, please see the September 2002 issue of *Momentum*, available on our Web site at <https://www.popcouncil.org/publications/momentum/momentum020101.html>

## Learning how to make a difference to Mayan girls

Thirty-six years of civil war that ended in 1996 left Guatemala among the poorest countries in Latin America. A third of the adult population cannot read. Guatemala has the highest infant mortality rate in Central America, as well as the highest fertility rate. Eleven percent of births are to girls ages 15 to 19. Ana Langer, director of the Population Council's regional office for Latin America and the Caribbean, and social science researchers Jennifer Catino, Kelly Hallman, Sara Peracca, and Marta Julia Ruiz are seeking to clarify how best to help improve the lives of a particularly beleaguered segment of Guatemala's population, Mayan girls.

Nearly half of the Guatemalan population are Mayans, who for the most part live in isolated rural areas, with access to only a few basic services. Seventy-five percent live in poverty. Among Mayan women ages 15–19, only seven percent of the extremely poor have completed primary school and, on average, they are two years younger when they marry than their mainly urbanized ladina (Spanish-speaking) peers.

Theorizing that cultural, economic, geographic, and language barriers have contributed to the current circumstances of Mayan girls, Council researchers are seeking to identify initiatives to bring about change—known in social research parlance as interventions. They are examining the possibilities for building on existing programs for which success can be demonstrated. Their goal is to identify the type of support programs that provide the most leverage for positive change. The research is being underwritten by the United Kingdom's Department for International Development and the Bill & Melinda Gates Foundation.

"We are taking a very evidence-based approach in order to eliminate preconceptions," Hallman noted. "We are looking at the dimensions of adolescent life in Guatemala, using such existing data as the World Bank's Living Standards Measurement Survey."

The researchers already have uncovered important facts that could guide the design of future interventions. For instance, by the age of 14 half of Mayan girls have dropped out of school. However, there is no large jump in the percentage of Mayan girls who are married or pregnant until the age of 18. The preconception that these girls are leaving school mainly because of marriage or pregnancy appears to be unfounded. Research is

revealing that the girls are dropping out of school to work in their homes or in the fields, often for no pay.

Now that factors for further investigation have been identified, the next question is, where to investigate them? "We know from the data that there are variations in conditions by



Population Council

*By the age of 14, half of Mayan girls have dropped out of school.*

region," Hallman says, "but we need to know which regions have the most pressing needs."

"We also want to find areas in which programs already are in place," adds Peracca. They are forging collaborative relationships with local partner organizations that are working with—and are known and trusted by—the Mayans.

New approaches then can be incorporated into existing programs to avoid redundancy and stretch existing resources. Local researchers have inventoried programs serving Mayans and adolescents that are run by the government, nongovernmental organizations, and private charities. Four communities in two of Guatemala's mountainous rural regions have been chosen for further study. Adolescents, parents, teachers, and community leaders are now being interviewed by local researchers about the aspirations, opportunities, and barriers affecting the lives of Mayan young people. Informed by the findings of evidence-based, scientific investigations, Council researchers plan to use that knowledge to design and test additional, practical interventions appropriate to the Mayan culture.

# Council's Horizons research guides HIV/AIDS programs around the world

The Population Council's Horizons program conducts operations research to identify the most effective and affordable HIV/AIDS programs for prevention, care, and treatment in developing countries. Findings from this practical type of research enable the U.S. government and HIV/AIDS program managers around the world to improve the response to this catastrophic pandemic, saving lives and helping affected families while making every dollar spent count. Horizons is funded by the U.S. Agency for International Development.

Operations research involves five basic steps:

- Problem identification and diagnosis
- Strategy selection
- Strategy experimentation and evaluation
- Information dissemination
- Results utilization

## ***Horizons studies take various forms:***

- Diagnostic studies to determine why some HIV/AIDS programs are not achieving optimal success in service delivery.
- Intervention studies to determine the most effective and affordable ways to solve problems and improve services. Researchers test new approaches to changing behavior and new ways to design and deliver services.
- Evaluation studies to examine the impact or long-term practicality of the methods established by intervention studies or to

determine whether they can be successfully expanded or adapted to new sites.

In planning and carrying out every study, Horizons researchers work closely with local program managers, community- and faith-based groups, individuals affected by HIV/AIDS, health agencies, and policymakers. These strong working relationships with those who have most at stake help focus efforts on the most pressing programmatic issues and help ensure that the final recommendations are feasible and acceptable.

The research cycle does not end when all data are analyzed. Horizons is committed to communicating the results of its research globally and to sharing recommendations for using the information through publications, academic journals, stakeholder workshops and meetings, and the Internet. For example, at last summer's international AIDS conference in Barcelona, Horizons researchers made dozens of presentations about the program's studies.

## ***HIV voluntary counseling and testing***

In Kenya, an assessment of HIV voluntary counseling and testing facilities in Nairobi, requested by the USAID Mission and the Kenya National AIDS Control Program, led to the establishment of a model center for training and research and the creation of 45 voluntary counseling and training centers throughout the country. The Kenyan government has used study findings to develop guidelines and has made a commitment to establishing counseling and training centers in district hospitals.

## ***Family and community support***

In Uganda, a Horizons study suggests that children of HIV-positive parents benefit when orphan-support programs help the family—before parents die—with counseling, preparing wills, and choosing future guardians. This approach has since been identified as a “Global Best Practice” by UNAIDS. The findings have prompted such international



Photographer: Laelia Gilboim

*Many families worldwide are gravely threatened by the epidemic; in sub-Saharan Africa alone, there are more than 11 million AIDS orphans. A Horizons study found that orphan-support programs are more beneficial when they reach families before parents die.*

organizations as PLAN and Save the Children to expand their use of this approach into other African countries.

## ***HIV/AIDS prevention for youth***

In Mexico, Horizons researchers evaluated a school-based prevention program that used a curriculum covering abstinence, faithfulness to one partner, and condom use. The program's success has prompted the Mexican Ministry of Health to expand it to 40 more high schools.

## ***Treatment***

In South Africa, an intervention study in a mining area led to a new partnership that involved the mining company, a nongovernmental organization, a community board, and the local health department. After the study ended, this partnership continued to provide services to treat sexually transmitted infections and educate the community about HIV/AIDS.



Photographer: Mirale Chomba

*Young Zambians attending a workshop where they learn to care for people living with HIV/AIDS. Mobilizing communities to provide such support is an important strategy in responding to the epidemic and helps emphasize the importance of prevention.*

Horizons is a research collaboration directed by the Population Council with six partners:

- International Center for Research on Women
- International HIV/AIDS Alliance
- Program for Appropriate Technology in Health

**Horizons**  
Refining the response to HIV/AIDS  
through global operations research

- Tulane University
- Family Health International
- Johns Hopkins University

More information about Horizons is available at [www.popcouncil.org/horizons](http://www.popcouncil.org/horizons)

## New Critical Countries Fund being established

The 18 Council offices outside the United States house more than half of the Council's staff, who hail from over 40 countries. These offices represent the Council's core presence in Latin America and the Caribbean, South and East Asia, sub-Saharan Africa, and West Asia and North Africa, and they are the springboard for Council activities in over 70 countries.

Many of these countries face considerable population challenges and lack the capability to meet them. Through the generous support of a diverse range of donors, the Population Council is able to address complex problems in some of the poorest areas. Council researchers in the fields of biomedicine, public health, and the social sciences are experienced in building trust, often in the face of daunting circumstances. Their work continues to further the Council's reputation for first-rate, evidence-based scientific research, technical assistance, and capacity building.

Many organizations move into and out of countries, depending on which projects attract funding or on changes in program emphasis, donor interest, or political disruptions. Momentum is lost when activities must be suspended.

The Population Council's offices in countries

such as Pakistan have remained open throughout several periods of turmoil, maintaining relationships with government and nongovernmental organizations and sustaining collaborations that have proven effective in improving reproductive health and other services. However, at any given time, one or more countries in which the Council is working may reach a critical juncture when the need for assistance is compelling yet resources to continue are unavailable. Unrestricted funds can provide stop-gap funding for Council field offices to continue some projects, but such funds are extremely limited. Most of the Council's resources are earmarked for specific programs and projects.

Contributions designated for the Critical Countries Fund as a whole, rather than for any specific country, will give the Population Council flexibility to channel resources to where they are most needed, address immediate concerns, and anticipate emerging problems. Current priorities include such countries as Cambodia, Ethiopia, Guatemala, and Pakistan. For additional information about the Critical Countries Fund, please contact Ruth Kalla Ungerer, director of development, at 212-339-0515 or [rungerer@popcouncil.org](mailto:rungerer@popcouncil.org).

## Training population scientists

Over the last five decades, population studies have expanded beyond describing population growth and the decline of fertility and now encompass making critical contributions to such areas as HIV/AIDS, reproductive health, population aging, and migration. Recognizing that approaches to training need to be updated regularly to remain relevant, The Andrew W. Mellon Foundation awarded a grant to the Population Council to assess how best to train and support the next generation of population scientists from developing countries.

Advancing the development of population scientists has always been central to the Population Council's mission. Since 1953, an average of 30 men and women a year—approximately 1,500 social scientists in total—have benefited from Council fellowships. Many past fellows are now in influential positions at leading population research and training institutions and in government agencies and nongovernmental organizations throughout the world. Most developing countries lack strong, university-based graduate training programs, increasing the demand for Council fellowships that allow study overseas at a time when resources to sustain—let alone expand—the program are scarce.

The 2000–2001 Mellon-funded study was conducted by an international panel led by Jane Menken, a Distinguished Professor of Sociology and the director of the Institute of Behavioral

Science at the University of Colorado. The Population Council's director of social science research, Cynthia B. Lloyd, served on the panel and co-edited the report of the study findings with Menken and demographer Ann K. Blanc of Blancroft Research International.

Current practices related to recruitment, training, funding, and employment were examined, with information gleaned from discussions with population scientists at professional meetings in Brazil and Washington, DC, and from commissioned case studies in China, India, and Uganda. Study researchers also spoke with current and former Council fellows and gathered published and unpublished data from leading social scientists worldwide.

The panel has made specific recommendations applicable to universities, professional associations, and potential donors. Suggestions range from establishing transnational collaborations for training and research to creating and enhancing virtual libraries. "The potential of web-based libraries and archives for expanding access to [critical] information in developing countries," the panel stressed, "has just begun to be tapped."

The full report, *Training and Support of Developing-Country Population Scientists*, is available in English at <http://www.popcouncil.org/opportunities/fellowships.html>. The summary report containing all the recommendations is available in English, French, and Spanish on the same page.

## Momentum

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The Population Council is an international, non-profit, nongovernmental organization that seeks to improve the well-being and reproductive health of current and future generations around the world and to help achieve a humane, equitable, and sustainable balance between people and resources. The Council conducts biomedical, social science, and public health research and helps build research capacities in developing countries. Established in 1952, the Council is governed by an international board of trustees. Its New York headquarters supports a global network of 18 regional and country offices.

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## AIDS in India

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seeking to train 10,000 doctors from ten states in HIV/AIDS treatment, asked the Population Council to assist with the design and pilot-testing of an effective training program. Following initial research on physicians' needs and other topics, the Council's Horizons program is collaborating with several nongovernmental organizations in Bangalore and Karnataka to develop a course that will be evaluated for effectiveness by the Council after a trial run.

**50** YEARS  
1952-2002  
**Population Council**  
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### **Population Council assists Mandela Children's Fund**

The Nelson Mandela Children's Fund was established in 1994 to provide for the safety, health, and survival of orphans and vulnerable children in Africa. War, famine, and the AIDS epidemic (see box on page 5) are putting African children at unprecedented risk.

The Children's Fund established the Goelama Project two years ago to use the experience gained in its other projects to create and test comprehensive, integrated approaches to the issues affecting orphans and other vulnerable children. *Goelama* means to safeguard and nurture the young and the vulnerable. The project seeks to improve the well-being of children from infancy to age 22 using a unique "holistic" approach. In addition to providing direct support to these children, Goelama seeks to strengthen households, to foster more integrated local governmental response, and to prevent child abuse and the spread of HIV/AIDS. The project uses the needs of the children as a basis for mobilizing entire households and communities in the search for sustainable solutions.

At the request of and with funding from the U.S. Agency for International Development, the Population Council's Frontiers in Reproductive Health

and Horizons programs are providing technical assistance to evaluate Goelama's effectiveness. Last year Development Research Africa completed baseline surveys assessing adolescents' (1) reproductive health and puberty knowledge; (2) sexual behavior and contraceptive use among those sexually active; (3) views toward people living with AIDS; and (4) involvement in HIV/AIDS-related activities and personal experiences with sexually transmitted infections. The survey assessed household socioeconomic capacity to care for orphans and other vulnerable children and household respondents' reproductive health knowledge and sexual behavior. A second set of surveys, to be conducted after programs have been implemented, will measure their effectiveness.

Former South African president Nelson Mandela said last year, "We have reached such an advanced stage in the spread of the AIDS pandemic that there is almost no time left for merely feeling and thinking and talking. We are in the middle of a war that is wreaking havoc and destruction. Concrete action is what is required every day and every hour."

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