AIDS in Asia: The View From the Global Fund

The TREAT Asia Report Interview: Dr. Michel Kazatchkine

Dr. Michel Kazatchkine is a physician and global health expert who has treated people with HIV/AIDS for more than 20 years. As executive director of the Global Fund to Fight AIDS, Tuberculosis and Malaria, he leads its efforts to expand access to HIV prevention, treatment, and care in the developing world. The Global Fund provides almost a quarter of all international financing for AIDS globally and has supported the provision of lifesaving antiretroviral treatment for two million people.

TREAT Asia Report: You have said that stopping the spread of AIDS in Asia is within our grasp if we have the resources. How can Asian countries best focus their HIV/AIDS programs given global resource limitations?

Dr. Michel Kazatchkine: Certainly resources are constrained right now, but it is crucial that we continue to invest in the fight against HIV/AIDS. If resources remain flat or decrease, we will rapidly lose the gains that we have made in the last eight years—and we have made major progress scaling up

A Human Rights Struggle at the Heart of the AIDS Epidemic

MSM Activist Wages a Personal Battle

For Hua Boonyapisomparn, fighting for human rights is central to her work on HIV/AIDS among men who have sex with men (MSM)—but it is also a deeply personal battle. As a transgender person, she has often felt the lash of stigma and discrimination because of her identity. In fact, her experience with stigma led her to a career as an activist.

“In Asia, there are few career opportunities for transgender people apart from stereotypical jobs in entertainment venues or beauty salons,” she says. “After I got my university degree in business, I found no one would hire me. But

Hua Boonyapisomparn with her mother, Boonyok, whose unconditional support has given Hua the confidence to be open about her transgender identity. (Photo: Sanitsuda Ekachai)
Focusing on the Next Generation

Medical training is a step-by-step process. Students encouraged by their professors move up in stages, perhaps one day becoming professors themselves. For young doctors, however, this process of establishing themselves in the profession can be daunting.

Almost every field within medicine strives to recruit the most talented students and train them to become leaders in research and clinical care. HIV medicine is no different. But in Asia it is not always easy to find doctors who are willing to dedicate their time and careers to treating a patient population that is largely poor, socially stigmatized, and suffers from a presently incurable disease. TREAT Asia has been considering how to encourage young investigators who have demonstrated an interest in HIV to remain committed to HIV research and patient care. This year is our first attempt to address this by offering targeted trainings and creating opportunities for junior-level doctors to play a greater role in the research we conduct. We examine these new programs in a story on page 3.

This July, our new MSM program coordinator, Hua Boonyapisomparn, will become the first openly transgender person to give a plenary presentation at the International Congress on AIDS in Asia and the Pacific (below). In this issue we highlight her work with the Purple Sky Network and her history of advocating for transgender rights (page 1). For TREAT Asia, bringing advocacy to the forefront of our community program also means that the TREAT Asia Report will continue to present current research information that we think will be of interest to the HIV community.

Finally, we are honored to feature an interview with Dr. Michel Kazatchkine, executive director of the Global Fund (page 1). His thoughts about HIV prevention and treatment in Asia reflect a lifelong commitment to international public health and a deep knowledge of the epidemic’s direction in Asia.

As always, we thank our partners and network members for their support of our continually evolving and growing programs.

Annette Sohn, M.D.
Director, TREAT Asia
Investing in the Future of HIV Research
TREAT Asia Programs Support Young Clinicians

In some ways, the challenge of fighting HIV/AIDS in Asia can hinge on the question of human resources as much as medicine or research. When the epidemic first took firm root across the region in the late 1990s, doctors and nurses were faced with a deadly virus with which they had little or no experience. Since then, initiatives such as TREAT Asia have helped healthcare workers develop the skills needed to treat HIV/AIDS in their own countries.

To a great extent, however, these skills belong to senior doctors and researchers, many of whom have been treating HIV/AIDS since the early days of the epidemic. And so the question is increasingly raised: Where is the next generation of HIV clinicians and researchers in Asia?

TREAT Asia director Dr. Annette Sohn lays out the challenge in more detail. “As treatment regimens and clinical management become more complex, primary healthcare providers are referred to their local HIV specialists for help. As these experts become increasingly overloaded, how do we find more resources? In some places in Asia, it is not always easy to find doctors and nurses interested in caring for those with HIV. Patients are often poor and cared for under government programs with low remuneration.”

To address the region’s urgent need to develop a new generation of advanced HIV practitioners, TREAT Asia, in consultation with the Network’s junior investigators, is implementing a series of educational programs aimed at building skills and enhancing research opportunities among these early-career scientists. “We want to support them to be successful in their fields,” explained Dr. Sohn. “By providing these types of opportunities to junior doctors, we are investing in the long-term sustainability of our mission and network.”

The first of TREAT Asia’s training programs for junior researchers involved a scientific writing workshop in Bangkok in March, designed to help sharpen English-language scientific writing skills. In mid-June, a second writing workshop was held in Kuala Lumpur focusing on publishing pediatric research. And a third on resistance and biostatistics took place in Bangkok that same month. This coming October at the TREAT Asia Network Meeting, a special half-day session will also be devoted to the interests of junior investigators.

At the Bangkok scientific writing seminar, from left: Dr. Junyan Han from China, Dr. Sasheela Sri La Si Ponnampalavanar from Malaysia, and Dr. Evy Yunihastuti from Indonesia.
Infections with human papilloma virus (HPV) have been identified as a cause of most cervical cancers. Among HIV-positive women, HPV infection is a particular concern, and cervical cancer is considered an AIDS-defining illness.

There are over a hundred different types of HPV, with some types responsible for causing genital warts (cauliflower-like growths that occur on and around the genital area) and some that can lead to cancer. HPV in women is best diagnosed through a regular pelvic exam and Pap smear. While a pelvic exam allows doctors to carefully check for the presence of genital warts, the Pap smear involves taking a sample of cervical cells to look for evidence of early cancer. Of the 15-20 types of HPV associated with cervical cancer, HPV-16 and HPV-18 are the most dangerous, and responsible for approximately 70 percent of cancers.

Previous studies in India, Taiwan, and Thailand have linked HIV infection to increased incidence and severity of HPV-related abnormalities of cervical cells and to cervical cancer in Asian women. A recent study on the prevalence of HPV infection in HIV-positive women in Rwanda also yielded similar results. Of the 647 HIV-positive women enrolled in the study, 69 percent were infected with HPV, compared with 14 percent of HIV-negative women. Even more worrisome, 46 percent of the HIV-positive women were infected with cancer-causing types of HPV and 35 percent had multiple types of HPV.

Despite the increased risk of HPV infection in HIV-positive women, in Asia few women are routinely screened for cervical cancer. A vaccine exists against HPV-16 and -18, which has demonstrated greater than 90 percent efficacy in preventing infection, but it does not provide protection to those already infected nor is it easily accessible or affordable to most women in the region. Based on the growing number of research studies demonstrating a higher risk of HPV and cervical cancer in HIV-positive women, there is a greater need for HIV treatment programs to integrate Pap smear testing into routine care and to consider the use of HPV vaccines in high HIV prevalence areas.

The question of when it is best to start antiretroviral therapy (ART) has important consequences for the long-term health and survival of people with HIV/AIDS. In recent months, when to start has become the focus of much research, including a study described in the March 2009 TREAT Asia Report showing that those who waited until their CD4 counts were below 350 cells/mL had a 69 percent greater risk of dying than those who started with counts between 351 and 500 cells/mL. Since then, several new studies have reinforced the idea that starting ART earlier at CD4 counts of at least 350 cells/mL leads to better treatment outcomes.

One of the new studies compared 45,000 patients in North America and Europe in whom HIV had not progressed to AIDS. Results showed that those who started ART at lower CD4 counts (251–350 cells/mL) had a 28 percent greater risk of developing AIDS or dying than those who started treatment at higher CD4 counts (351–450 cells/mL). This risk was not as high as that reported on in our March issue, but it emphasizes that waiting too long to start ART leads to higher rates of disease progression and death, even in resource-rich countries.

In many parts of the world, people are often not diagnosed with HIV until they experience an AIDS-related
Growing numbers of patients in Asia are experiencing treatment failure, a problem that occurs when antiretroviral therapy (ART) can no longer stop HIV from multiplying. Treatment failure is directly linked to whether a patient consistently takes all antiretroviral doses on time (known as adherence) and to antiretroviral drug resistance.

Drug resistance itself is a complex process in which the HIV virus slowly learns how to escape the effect of an antiretroviral and continues multiplying. This is achieved through developing genetic mutations that create a “smarter” mutant virus. Ongoing research is teaching us more about the relationship between adherence and the way resistance to individual antiretroviral drugs develops.1

Antiretrovirals can be categorized by their potency, defined as their ability to prevent HIV from multiplying. They also have different genetic barriers to resistance, a measure of how many mutations it takes for the virus to figure out how to escape the effect of the drug. A high genetic barrier means that the virus has to acquire many mutations to avoid being suppressed; a low genetic barrier means that it only needs to acquire a few mutations to keep multiplying. For example, ritonavir-boosted lopinavir (Kaletra, Aluvia) is very potent and has a high genetic barrier to resistance because at least six mutations are needed to prevent it from working. But while nevirapine is potent, it has a low genetic barrier to resistance because only one mutation is needed to stop it from working. This means that high levels of adherence (for example, more than 95 percent of all doses) are needed to prevent resistance from developing.

When antiretroviral doses are skipped or when only one or two out of three drugs are taken at a time, this leads to uneven drug levels in the body. HIV then has a chance to multiply and acquire mutations. The more frequently this happens, the greater the chance that the drugs will not work anymore, even when taken correctly and on time.

The overall goal of ART is to prevent HIV from multiplying for as long as possible using the same antiretroviral regimen. Adherence together with individual drug characteristics will influence if or when treatment failure occurs.1

The larger picture presented by these studies suggests that a greater emphasis on early HIV testing and CD4 monitoring, which could help bring patients to clinical care before their CD4 levels fall, would allow them to receive a greater benefit from ART. But most national programs in Asia still do not provide free ART before CD4 reaches 250 cells/mL3. Stronger advocacy could encourage international ART programs to review and accept these research results.1

The appearance of these OIs often means that a person has a low CD4 count (for example, less than 200 cells/mL3). A study of patients in the U.S., Puerto Rico, and South Africa looked at the impact of starting ART as soon as an OI was diagnosed (not including tuberculosis) compared to waiting until finishing treatment for the infection.

When patients started this study, their CD4 counts were very low, with 70 percent having fewer than 50 cells/mL. By the end, 14 percent who started ART right away had disease progression to AIDS or died, compared to 24 percent of those who started ART after finishing OI treatment. This translated to an almost 50 percent greater chance of disease progression or death in the group that was treated later.3

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A patient at an HIV clinic in Cambodia (wearing a mask because of a cough) discusses treatment with a healthcare worker. (Photo: Karl Grobl)
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Dr. Kazatchkine: Among Global Fund cohorts, which account for three-quarters of all HIV treatment in Asia, less than five percent have had to switch to second-line drugs (based on clinical and immunological monitoring, not on viral load). Those figures are actually a little better than we thought they would be a few years ago.

The Global Fund subsidizes the second-line antiretroviral drugs in non-PEPFAR countries, and there is no PEPFAR in Asia, except in Viet Nam. Our main concern is that these second-line drugs can cost up to 40 times as much as first-line drugs. If we cannot solve this problem, then we will run into impossible dilemmas over whether we only have enough resources to continue supplying drugs to those already in treatment, or whether we can include new patients who are at high risk of dying. But I see progress. China had no second-line drugs one and a half years ago, and now Kaletra and tenofovir are coming into the arsenal.

TA Report: Co-infection with HIV and tuberculosis (TB) is a significant concern in many Asian countries. What are the best ways to address this double burden?

Dr. Kazatchkine: For years, many countries have built coherent and strong national TB programs. But TB complicates the treatment of HIV because some of the drugs needed to treat it are not compatible with some antiretroviral regimens. In coordinating the treatment of the two, we are clearly lagging behind. In Ho Chi Minh City, for example, the TB hospital cannot do HIV testing and counseling. And at the city’s infectious disease hospital, healthcare workers who suspect that someone is infected with TB can hardly even do an x-ray without sending the patient to the TB hospital.

TA Report: Since its launch in 2002, the Global Fund has provided funding to address gaps in national HIV/AIDS programming around the world. Where do the widest gaps in treatment remain?

Dr. Kazatchkine: We need to scale up treatment education. Civil society needs to be aware of what it means to have HIV/AIDS so that people are not afraid and so that those who are infected are compassionately treated. Even among physicians and nurses, there are still so few who are knowledgeable about HIV/AIDS healthcare—in China and even in countries like Thailand or Cambodia, where Global Fund money has really made spectacular progress in prevention and access to treatment.

Another gap in treatment is related to support programs. People who are affected by HIV/AIDS need social and peer support to help with psychological needs and with practical things like housing and nutrition.
abstracts, the standard components of a research paper, and how to communicate with journal editors when submitting a manuscript.

Seventeen research scientists from 12 countries across Asia attended the program, including Dr. Lee Lee Low, a TREAT Asia co-investigator from Sungai Buloh Hospital in Kuala Lumpur, Malaysia. “Workshop participants were from different countries, they had different backgrounds, and many of us were new to the world of research and publication,” she said. “We learned the whole process of writing and developing a research article, from searching for the most appropriate title to publicizing it.”

The June workshop on resistance and biostatistics addressed some of the most complex HIV treatment and research challenges facing Asia. “Treatment failure is increasing in the region,” explained Dr. Sohn. “We now have data, but many investigators don’t know how to use it.” The goal of the four-day workshop was to help junior researchers better understand HIV drug resistance. The workshop also presented advanced level biostatistics seminars, so that participants could develop the tools to analyze some of their own resistance data and evaluate the quality of care they are delivering.

The TREAT Asia writing workshops were funded by the Office of AIDS Research at the U.S. National Institutes of Health and the Austrian AIDS Life Association. The resistance and biostatistics workshop was supported by a grant from the Dutch Ministry of Foreign Affairs through Aids Fonds.

If we do not move faster, there will still be hundreds of thousands of people with HIV who will die every year of treatable TB. The 2009 Global TB Control Report shows an estimated 1.37 million new cases of tuberculosis among HIV-infected people and more than 450,000 deaths. That means one out of every four TB deaths is HIV-related. If we do not improve HIV/TB integration, we have a very high risk of seeing multidrug-resistant TB spread in those populations. Particularly in Asia, there are a number of high-burden countries with huge populations with TB and multidrug-resistant TB. Rather than keeping these systems on parallel tracks, we need to integrate them.

TA Report: Injection drug use is a major driver of the epidemic in Asia and the Pacific. What are the most effective strategies for preventing the spread of the virus among this vulnerable population?

Dr. Kazatchkine: There are so many countries in Asia where injection drug users [IDUs] are considered criminals, thrown in prison, or cannot access prevention or treatment services. But a compelling set of evidence has shown that programs that provide education, therapy, clean needles and syringes—a comprehensive harm reduction package—offer the most effective HIV/AIDS prevention intervention.

In Europe, where we have been implementing harm reduction more comprehensively than in the U.S., IDUs are not becoming infected. In France, IDUs constitute less than two percent of all new infections per year. So it’s like preventing mother-to-child HIV transmission: It’s a problem that has been solved in other countries. I don’t see why it couldn’t be solved in Asia as well.
I’d been involved in LGBT activism as a volunteer, and I ended up working in the field full-time.”

Her personal struggles have inspired Hua in her role as MSM program coordinator for TREAT Asia. “The basic problems of sexual minorities in Asia are the same everywhere: stigma and a lack of human rights,” she explains. “This is an issue for every MSM organization. They have to figure out how to change attitudes within society.”

At TREAT Asia, Hua works with the Purple Sky Network, a network of MSM groups in the Greater Mekong Sub-region, for which TREAT Asia serves as regional coordinating secretariat. Hua’s role as an advocate for MSM is not a new one for her. Prior to joining TREAT Asia in March, she oversaw outreach, prevention, and advocacy at several organizations including the Rainbow Sky Association of Thailand and Sisters, a support group for transgender sex workers. “There were few transgender people involved in HIV/AIDS activism when I started,” she says, emphasizing the need for new and diverse voices in the fight against AIDS.

With Hua’s help, advocacy will be one of the Purple Sky Network’s highest priorities during the next two years. As the group’s facilitator, she currently provides technical support to community-based and nongovernmental organizations (NGOs) that offer much-needed havens for MSM to gather and seek support and information about HIV/AIDS and other issues. But many gaps in services remain, and in some countries there is little coordination between donors and program implementing agencies on MSM work, leading to unnecessary duplication of efforts.

The Purple Sky Network’s expanding MSM advocacy project, supported by a grant from the Levi Strauss Foundation through amfAR’s MSM Initiative and the Health Policy Initiative (HPI), is being developed to address these challenges. The first phase of the project is the creation of a database known as the Purple Sky Network Regional Information System on MSM (PRISM), which will include data from network members, major donors, and national and international NGOs. Beginning this summer, the database will allow the network to assess the capacity-building needs of Greater Mekong MSM organizations and map existing resources.

In the second phase of the project, Purple Sky member groups will use the data from PRISM to help shape their individual strategies for evidence-based advocacy and monitor the outcomes of their activities. Network members will also receive action-based advocacy training on a wide range of skills, including organizing policy meetings with government officials, donors, and local agencies, and developing campaigns to reduce stigma.

Hua believes the PRISM database will be an important tool in convincing donors and governments to help alleviate the urgent problems facing MSM in the Greater Mekong Sub-region. Across Asia and the Pacific, MSM are much more likely to be infected with HIV than the general population; a 2009 paper in the journal Sexually Transmitted Diseases showed that prevalence among MSM in urban areas ranged from 5.5 percent to 28.3 percent in Thailand and Cambodia, and up to 9.4 percent in some parts of Vietnam and China.

Hua also recognizes that her work includes broadening understanding of MSM as a community and an identity. “I think that when we work on the issue of HIV/AIDS and MSM, we are not dealing with one problem that has one solution,” she explains. “There are different contexts for each group of people, and specific health issues.”

This rich diversity within the global MSM community is something Hua deeply appreciates. “When you work in this field,” she explains, “you meet so many different people at all levels of society. I’ve learned so much about sexual minorities, about HIV, and understanding people’s gender identity and sexuality.” For Hua, the importance of the work she does with HIV and MSM comes down to this—the personal stories that lie at the heart of human rights.