

TeachAIDS Educator Handbook

A Comprehensive HIV/AIDS Prevention Curriculum



TeachAIDS™

A photograph of the Stanford University Archway, a large stone structure with a clock face and a large archway. The archway is covered in ivy. The path leads through the archway towards another archway in the distance. Palm trees are visible on either side of the path.

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A Comprehensive HIV/AIDS Prevention Curriculum

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TeachAIDS™

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Dr. Cheryl Koopman, Professor of Psychiatry and Behavioral Sciences, Stanford University
Dr. Clifford Nass, Professor of Communication, Stanford University
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Dr. Piya Sorcar is the Chair and Chief Executive Officer of TeachAIDS, where she leads a team of interdisciplinary experts to develop prevention materials that are culturally sensitive to countries around the world. Previously, she was a Program Advisor for Stanford’s Learning, Design & Technology Master’s Program and a Research Analyst with Analysis Group. She has also been a screenplay consultant for many international award-winning educational programs for children and was nominated for a Regional Emmy Award. Dr. Sorcar holds a Ph.D. in Learning Sciences & Technology Design and International Comparative Education and an M.A. in Education both from Stanford. She has been an invited speaker at numerous universities, including Caltech, Columbia, Yale, Tsinghua (China), and Utrecht (Netherlands).

Dear Educator:

One of the greatest challenges facing the world is how to provide effective public health education. Effective prevention and awareness of communicable diseases have direct benefits for the rest of the world, their absence has direct negative consequences. As witnessed in 2002 during the near pandemic of Severe Acute Respiratory Syndrome (SARS), deadly diseases can rapidly spread around the world in the modern era. HIV/AIDS is perhaps the best known disease in this category, with 33.2 million infected worldwide. For these types of illnesses, general prevention education is a more effective and realistic mitigation strategy than containment.

Disease prevention and management are facilitated when modes of disease transmission can be discussed openly, as was the case with SARS. However, diseases like HIV/AIDS that are usually transmitted sexually present significant challenges because social stigma often precludes such open discussion. Solving the problem of how to provide effective health education on diseases subject to social taboos is of immediate importance. Social stigma concerning HIV/AIDS is particularly prominent in the developing world, which accounts for 95 percent of the global HIV/AIDS population. This stigma makes it difficult not only to provide awareness but also to estimate societal levels of risk behaviors and disease prevalence. In fact, nine out of ten people infected worldwide do not know they are seropositive for HIV, thus, increasing their chances of infecting others.

Research demonstrates that expert knowledge is focused on concepts that are connected and assembled in an organized fashion. In other words, usable knowledge is quite different from a large set of disconnected facts. One way educators present health education is through a list of “DOs” and “DON’Ts.” Research on HIV/AIDS prevention has shown that these methods present “superficial knowledge” and are unlikely to translate into actionable prevention methods, leading to increased fear among learners. When teaching about prevention, it is imperative to avoid fragmented knowledge and instead focus on creating a coherent conception. This allows learners to organize considerable information and learn to reason in new settings.

TeachAIDS develops pedagogically-grounded and evidence-based HIV/AIDS materials localized for countries around the world. Our research has shown tremendous gains in knowledge and retention, along with corresponding positive changes in attitudes. Over the past several years, we have partnered with dozens of leading organizations (e.g., governments, institutions, NGOs) in numerous countries to bring high-quality education materials to learners of all ages. You have the opportunity to raise awareness and engage learners who need this information the most. HIV/AIDS is a preventable and treatable illness, and with proper education and our joint efforts, it can be controlled effectively.

Sincerely,
Piya Sorcar

Piya Sorcar, Ph.D.
Chair and Chief Executive Officer
TeachAIDS

Dear Educator:

For many years now, I have run the Communication between Humans and Interactive Media (CHIMe) Lab, which focuses on uncovering fundamental relationships between humans and interactive media. The lab members are interested both in advancing the overall understanding of human psychology and in exploring the practical implications of our discoveries. Our findings have informed software application design in a variety of contexts, including personal computing, mobile technologies, collaborative work environments, education, e-commerce, and driving. Most recently, I have been interested in understanding culturally-appropriate interfaces, which is inspired by a few basic principles: research should emerge from the needs, values, and desires of the indigenous population; research should adhere to the highest standard, regardless of geography, economy, and culture; and research should improve the quality of life in the communities being studied.

Though these principles have been fundamental in guiding social science in developed countries, relatively little research has been held to the same standards in the developing world. Much of this research is based on treating the needs and values of people in developed countries as standard and globally meaningful: developing countries are characterized in terms of differences from these norms. In contrast to best practices, methods of research and assessment in developing countries are not grounded in comparison, quantifiable measures, and scientific rigor. Because of these deficiencies, psychological and sociological research on technology in the developing world has not resulted in actionable design that improves the lives of communities.

Information and communication technologies hold much promise as empowering tools for populations that are critically dependent on timely and easy access to information about agriculture, employment, and especially public health. Our methodology of social science research, rooted in theoretically-informed, rigorously-controlled experimental research, and tested in over 100 published research studies and 200 products and services for Fortune 500 companies, is one that we believe allows a fresh approach to this problem. Rather than asking whether groups are similar or different to developed countries, the questions are motivated by the unique needs and desires of local populations.

The TeachAIDS materials are based on this actionable design. They are grounded in the “gold standard” of testing for any quantitative research. This sort of rigorous, controlled testing is often neglected in developing countries. Thus far, research for these animated materials have been conducted in India, South Africa, and China, with extraordinary results. What is groundbreaking is that the evidence shows that we can provide complete and detailed information about HIV/AIDS while fully respecting the taboos of each indigenous culture. It was especially impressive that the results demonstrated significant changes in learners’ attitudes and beliefs without discussing topics or presenting value judgments that are considered inappropriate in the culture. Because the curriculum does not rely on literacy or advanced technologies, these materials can be readily adapted to educate people regardless of their access to high-tech resources (e.g., cell phones, computers, Internet). I hope you and your students enjoy the materials.

Sincerely,
Clifford Nass

Clifford Nass, Ph.D.
Thomas M. Storke Professor
Stanford University

Dr. Clifford Nass is the Thomas M. Storke Professor at Stanford University. He has appointments in communication; computer science; education; science, technology, and society; sociology; and symbolic systems. He directs the Communication between Humans and Interactive Media (CHIMe) Lab, and co-directs the Kozmetsky Global Collaboratory and the AutoX Lab. Professor Nass has authored two books, *The Media Equation* and *Wired for Speech*, and over 100 papers. His primary areas of research are social-psychological aspects of human-technology interaction, car, robot, and mobile interfaces, and statistical methods.



*D*ear Educator:

HIV/AIDS is one of the worst infectious disease pandemics in the history of humankind. Millions of individuals are infected worldwide, and adults in their prime are among the hardest hit. One of the terrible legacies of this pandemic is a generation of AIDS orphans who have lost one or both parents to this illness. Although there have been great gains in providing life-saving treatment in resource-limited settings, for each person who has been treated during the last year, two to three more have become infected. So, despite dramatic increases in the number of people being treated, we are still losing ground because so many more people continue to become infected.

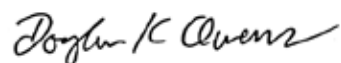
A cruel irony of the pandemic is that the vast majority of these new infections can be prevented. Apart from mother-to-child transmission, HIV is acquired through sexual and needle-sharing risk behaviors that are well known and can be changed. In our research on strategies to prevent and treat HIV/AIDS, we have found that reductions in risk behaviors can markedly diminish a person's chance of becoming infected. Across the many types of policy analyses we have conducted, the importance of behavioral change is very clear. Although clinicians and epidemiologists understand how HIV is transmitted, many people at risk of HIV infection lack the knowledge to reduce transmission. The cultural and practical barriers to teaching such knowledge are formidable, and yet, education is one of the most important tools we can apply to change the course of the HIV/AIDS pandemic.

TeachAIDS has developed and tested evidence-based HIV/AIDS materials for teaching potentially life-saving facts about HIV/AIDS. Based on research by an interdisciplinary team of experts at Stanford, including specialists in education, medicine, and communications, among others, this innovative tool provides an approach for teaching sensitive topics in a culturally appropriate and acceptable way. I have been an advisor to TeachAIDS since early in its development, and the team has brought enormous creativity and scientific rigor in developing this tool.

We know that information alone is not sufficient for people to change behaviors. Yet without information, facts can be replaced by ignorance, and acceptance can be replaced by suspicion. HIV/AIDS is not just a medical, social, or policy problem. It is a challenge we must meet with a commitment to public health, human rights, social justice, and, most crucially, education.

Your role in teaching young learners is a cornerstone of HIV prevention. You can help your learners gain knowledge that will replace fears with understanding and may help them save a life — their own or someone for whom they care.

Sincerely,



Douglas K. Owens, M.D.

Professor of General Internal Medicine and of Health Research and Policy
Center for Health Policy, Freeman Spogli Institute for International Studies
Stanford University School of Medicine

Dr. Douglas K. Owens is a General Internist; a Senior Investigator at the Veterans Affairs Palo Alto Health Care System; a Professor of Medicine and, by courtesy, of Health Research and Policy at the Stanford School of Medicine; and a core faculty member at the Center for Health Policy and Center for Primary Care and Outcomes Research. He directs several programs including the Stanford University of California, San Francisco Evidence-based Practice Center. Dr. Owens' research focuses on technology assessment, cost-effectiveness analysis, evidence synthesis, and methods for clinical decision-making for preventive and therapeutic interventions for HIV/AIDS, among other illnesses.



Dr. Shelley Goldman is a Professor of Learning Sciences & Technology Design at the School of Education at Stanford University. Her interest in educational anthropology drives her research on real-world contexts of learning. Dr. Goldman's quest to give people the tools they need to collaborate and accomplish learning has led her to study and design computer technologies. She was the co-director of the multi-year Dunia Moja project, which studied the efficacy of state-of-the-art mobile phone technology in Uganda, South Africa, and Tanzania to teach environmental science course materials via mobile technologies. Dr. Goldman is currently a principal investigator for the Stanford Education for Global HIVAIDS, Infectious Disease, and Epidemics project.



*D*ear Educator:

For decades now, my research through the learning sciences has been focused on developing pedagogically-grounded technologies that enhance learning in both formal and informal learning environments. I see the power of technology as a way to enrich or move beyond traditional school activities, structures, and experiences so that learners can make connections that affect their lives, reach out to human and information resources, and experience multiple channels and representations relating to concepts and skills. It is also absolutely essential that the creation of new learning technologies takes a research-based approach. To these ends, I have developed and extensively researched video technologies and their corresponding learning environments. I am currently experimenting with how to use hand-held devices, including mobile technologies, and social networking computing to facilitate learning.

Based on research in the learning sciences, "best practices" are being identified for the design of teaching and learning environments. For example, some "best practices" for use of technology research and development include developing learning approaches on the basis of sound research; taking a culturally relevant approach; making use of visual information; giving learners material for learning with ideas and concepts; providing the ability to simulate or model situations or problems; making available multiple channels/media/communications for learning; and integrating assessment of learning. The TeachAIDS materials beautifully incorporate these critical "best practices." Using an extensive iterative design approach, these materials use visual information to communicate essential messages to young people. I am excited that you will be able to bring these pedagogically-grounded messages to your students.

Since the beginning of the TeachAIDS initiative, I have been part of the team of experts, carefully following the critical design decisions and evaluation processes of these interactive materials. I see this as a unique curriculum that takes advantage of what technology offers to teach students about an often tabooed topic in ways that are respectful of cultural and social sensitivities. The materials are the result of a rigorous research-based process over several years that include work on how to best use technology, how to consciously present information about HIV/AIDS, and how to best assess student learning. The outcome of this evidence-based testing is a curriculum that is sensitive to social norms, uses animated agents to engage learners and provide visual information, and presents accurate and scientific information.

In just a short time, there has been a tremendous global response to TeachAIDS. Educators in schools, NGOs, and governments worldwide are using the materials and are quite pleased with their efficacy and effect. I think you will find that the TeachAIDS materials are easy for you to use, regardless of your classroom environment and context, and that they will help your students learn critical information about HIV prevention and awareness. Thank you for your dedication towards educating young people around the world on this very important topic. I believe you will be pleased with the results you will see in your students.

Sincerely,



Shelley Goldman, Ed.D., M.S.
Professor of Education
Stanford University School of Education



Dr. Cheryl Koopman is Associate Research Professor in the Department of Psychiatry and Behavioral Sciences at Stanford University. Dr. Koopman has numerous publications focused on psychological consequences of highly stressful events and on evaluating the effects of educational and mental health interventions. Dr. Koopman’s research has focused on HIV-related attitudes, risk behavior, and quality of life among gay and runaway adolescents, HIV-positive men and women, and others in India, China, Haiti, Botswana, Kenya, South Africa, and Malawi.

*D*ear Educator:

It is a pleasure for me to introduce an exciting new interactive tool developed by Dr. Piya Sorcar and several world-class interdisciplinary experts here at Stanford University. Based on empirical research and an iterative process of design, many versions of these prevention materials have been developed and more of them are in the works. What all of these interactive versions have in common is that they are based on the critically important assumption that effective HIV/AIDS education must be delivered with content tailored to the learner’s cultural background. As a researcher who studies psychosocial behaviors and health risk-factors, I have found this to be an essential component to communicate prevention education most effectively. Using animation and incorporating culturally sensitive images and verbal content, these materials help students overcome the social barriers of stigmatizing attitudes toward HIV/AIDS and attitudes against communicating about sexual practices.

These interactive materials have been carefully developed to overcome a variety of social prejudices—not only against persons thought to be and those who are HIV-positive—but also against the behaviors associated with heightened risk for HIV/AIDS. I have found such stigmatized behaviors to be critically important through my years of international HIV prevention related research. The social stigma associated with these behaviors can lead to ostracism that is so severe that it often threatens individuals’ livelihood, relationships, and well-being if they are suspected of engaging in such behaviors. However, TeachAIDS does not focus on such stigmatized behaviors. How does TeachAIDS achieve this? The answer sounds simple, but remarkable creativity has been incorporated in the details. TeachAIDS uses the engaging power of culturally-sensitive animated characters portrayed in an interactive format to describe all of the elements involved in sexual risk behavior that can lead to HIV infection. Therefore, learners are able to understand in sufficient detail the precise underlying mechanisms that can lead to HIV infection. TeachAIDS accomplishes this education about the mechanisms of HIV transmission while avoiding virtually any discussion of the social context in which transmission can occur. Moreover, because many cultures have social norms against explicitly discussing or portraying sexual behavior, each version of TeachAIDS is designed to incorporate a variety of strategies for communicating about sexual behavior in culturally-sensitive ways that avoid offending learners of the specific culture for which it is produced.

The success of this approach in overcoming cultural barriers to HIV/AIDS education has been compellingly demonstrated by impressively high ratings that learners report across a variety of indices. These indices show that the vast majority of those surveyed have felt very comfortable with the TeachAIDS program. A tremendous amount of effort as well as insight and creativity have been devoted to making these interactive teaching AIDS materials culturally-sensitive. Dr. Sorcar and her associates have shown that such an effort can result in a program that holds learners’ attention while commanding their respect, produces an increase in knowledge, changes attitudes, and gets delivered in the first place.

Sincerely,
Cheryl Koopman

Cheryl Koopman, Ph.D.
Associate Research Professor of Psychiatry & Behavioral Sciences
Stanford University School of Medicine

*D*ear Educator:

As the HIV/AIDS pandemic continues to threaten the future of youth throughout the world, TeachAIDS has developed tools that are a powerful force in the struggle against ignorance and stigma. Despite many global studies, we have not really made full use of the powerful network of educators and schools that could better support HIV/AIDS education. An effective approach to prevention education that is tailored to the needs of educators and their students remains elusive. Since the context of country, gender, economic class, and level of education is so variable, there is no “one message” that suits all. Nevertheless, the ignorance and stigma surrounding HIV/AIDS permeate all social and cultural boundaries. Today, globalization and the HIV/AIDS pandemic have arisen together, striking a generation in which technology is spreading rapidly across these boundaries. Young people in diverse communities share their experiences and interact with media in new ways that are still in evolution. The mode of communicating new information is rapidly moving from the passive and hierarchical (top-down) dissemination of knowledge to the more active and interactive (peer-to-peer) exchange of information.

TeachAIDS is finding new ways to answer old questions, such as “How do we talk about sex and sexually transmitted diseases like HIV/AIDS?” Our team is harnessing “new media concepts” responsive to important questions that youth can discuss in school but may not be able to discuss openly with family or peers. Educators have a responsibility to address the deepest, but often unspoken, concerns of young people about the sensitive issues of gender roles, pregnancy, and sexuality. What is needed is for educators to bring reliable answers to questions students have, while maintaining the level of comfort that “tabooed” or stigmatized topics often disintegrate.

Given the comforting familiarity of culturally-sensitive cartoon characters, can animation help to break through the barriers of taboo and stigma? The youth, who were surveyed before and after interacting with the TeachAIDS programs in our pilot studies, have shown significant gains in knowledge and more positive attitudes. Our research found that 98 percent of students surveyed said they liked the tutorial, and 95 percent said they learned more from these animated materials than from any other communication method, including television and school. Nevertheless, the responsibility for quality instruction ultimately rests with the educators. I sincerely hope that you make use of these materials and give TeachAIDS your feedback.

Knowledge is power, and with any luck, these simple cartoon characters will empower a generation of educators to meet the needs of their students in the 21st century.

Sincerely,
David Katzenstein

David Katzenstein, M.D.
Professor of Infectious Diseases
Stanford University School of Medicine

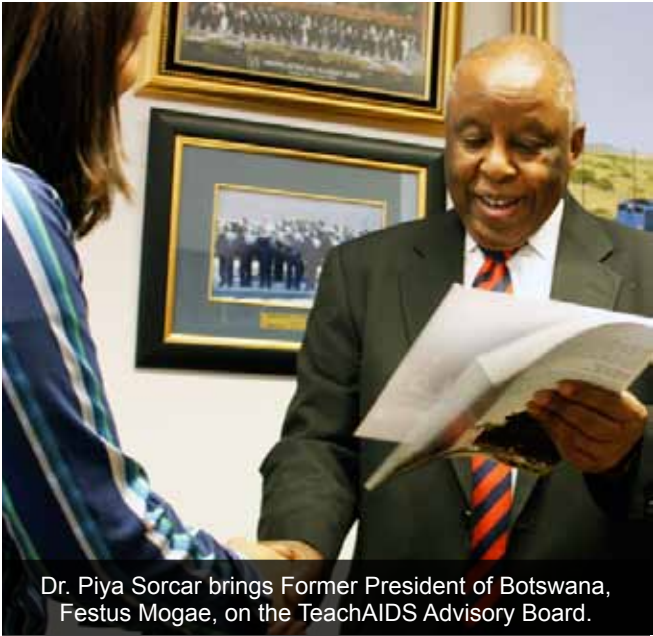


Dr. David Katzenstein is a Professor of Infectious Diseases at the Stanford School of Medicine. In conjunction with the University of Zimbabwe, Dr. Katzenstein founded and is currently the Principal Investigator of the Zimbabwe AIDS Prevention Project, a community-based research organization. He conducts HIV-related research throughout the United States, Africa, and Asia. His recent laboratory and clinical efforts span the AIDS Clinical Trials Group and HIV Prevention Trials Network. Dr. Katzenstein is focused on prevention of viral evolution, mother-to-child-transmission, and drug resistance in the context of scaling-up antiretroviral drug treatment for AIDS in Africa and Asia. He also has clinical appointments at San Mateo County Hospital.

Founded and developed through the Stanford University School of Education, TeachAIDS works to promote HIV/AIDS prevention strategies through pedagogically-grounded and evidenced-based interactive learning tools. Based on original Institutional Review Board-approved research, these applications were developed by an interdisciplinary team of experts spanning the fields of education, communications, public health, and medicine to target young learners. The various localized versions are used in countries around the world, including Botswana, Canada, China, India, Rwanda, South Africa, and the United States. Our materials are available for free at www.TeachAIDS.org.



The TeachAIDS interactive animations were developed, tested, and optimized over several years to provide high quality HIV/AIDS education despite social and cultural challenges. They incorporate key instructive and communication theories and approaches in order to maximize efficacy. To provide psychological comfort and promote coherent understanding, these technology-based applications couple biological aspects of transmission with culturally appropriate euphemisms and metaphors to communicate ideas about prevention measures. Created using a rigorous, iterative, and research-based process, these applications provide detailed, yet accessible, explanations of all key aspects of HIV/AIDS prevention. The design process included the development of multiple prototypes and over 150 iterations, starting with concept maps, screenplays, storyboards, and low-fidelity paper prototypes, and eventually leading to interactive versions of the curriculum in multiple media, including final versions in Adobe Flash.



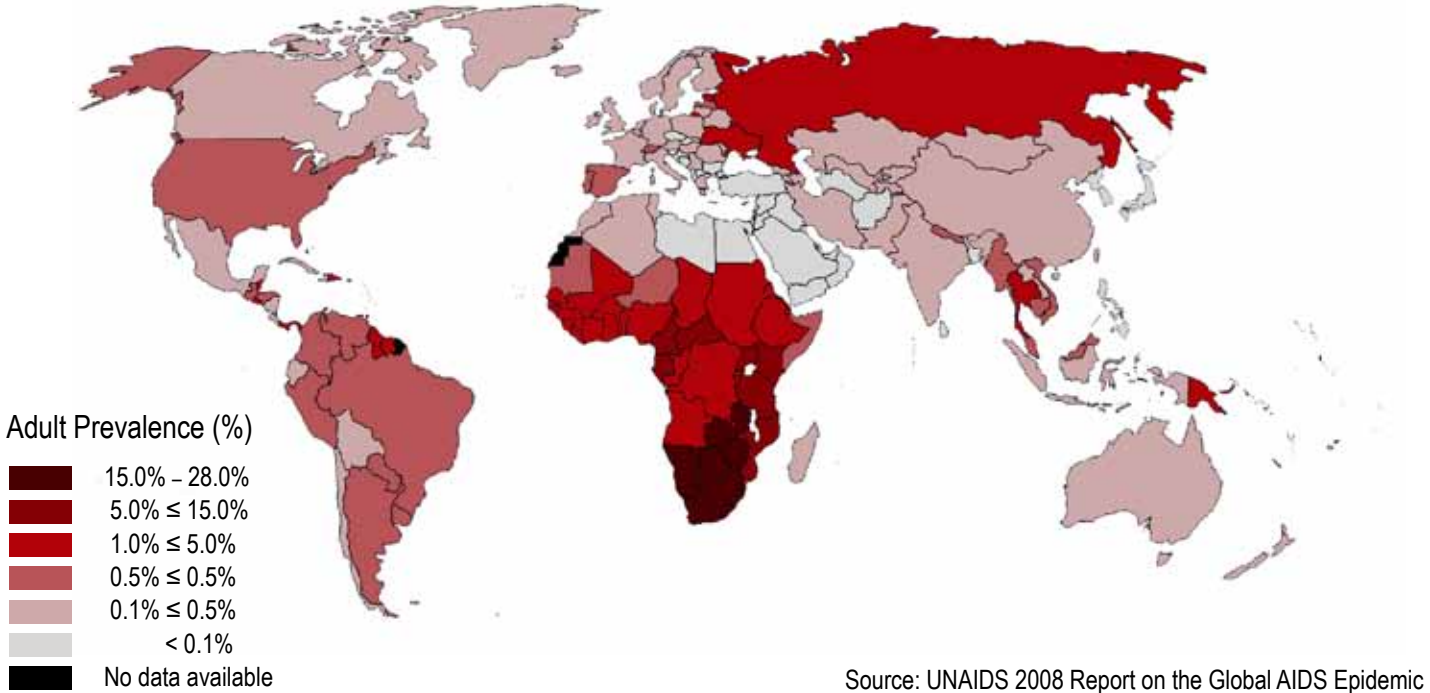
Through our partnership with governmental agencies, non-governmental organizations, educational and research institutions, and industry, our materials are now being used in more than 40 countries. Our team of interdisciplinary experts continues to work with these entities to conduct sound research, iterate our processes, and adapt our applications to novel contexts in order to respond to any existing challenges.

“The strength of the TeachAIDS model is that it is able to reach diverse audiences as it succeeds in transcending age, gender, and socio-cultural divisions.”

Maimouna Toliver, MPH, MIAD
Gender Mainstreaming Specialist
CARE International-Rwanda



A Global View of the Pandemic
(30-36 million living with HIV or AIDS in 2007)



Source: UNAIDS 2008 Report on the Global AIDS Epidemic

Genetic analysis of a Congolese man’s blood sample from the late 1940s or early 1950s showed that HIV probably stemmed from a single virus. After spreading to Haiti in 1966, HIV entered the United States around 1970. HIV was then reported in European countries around 1982 and China in 1985, and by 1986, there were more than 38,000 cases of HIV/AIDS from 85 countries. Four years later, there were 8 million people living with HIV or AIDS and, as shown in the map above, 30-36 million in 2007. Today, southern Africa bears the global burden of 35 percent of all HIV-infected individuals, while sub-Saharan Africa has 67 percent of the total HIV population in the world. Women account for 50 percent of the infection worldwide, and about 370,000 children became infected with HIV in 2007.

The primary mode of transmission is sexual activity. Other modes include intravenous drug use and vertical transmission from mother-to-child through breastfeeding and childbirth. HIV is transmitted via blood, sexual fluids, and breast milk, and it is not transferred through saliva, casual contact (hugging or sharing utensils), or mosquito and insect bites. Moreover, other sexually transmitted diseases increase the risk of HIV infection. The virus can affect anyone, regardless of race, religion, gender, or socioeconomic status.

HIV/AIDS is a challenging problem, as people are often asymptomatic when they are first infected. Some people, however, experience “flu-like symptoms” within a month or two after initial exposure to the virus. Because these symptoms are similar to those of other illnesses, like influenza and other viral illnesses, 90 percent of infected persons in the world do not realize they are HIV-positive. Another challenging factor is the strong stigma directed at infected individuals and their associations, including family, friends, and physicians. Stigma sometimes causes rejection from the community or even physical discrimination. It can also deter governments from taking protective measures against HIV, while making individuals reluctant to access HIV testing and treatment centers, resulting in a wider spread of the pandemic.



Students participating in a TeachAIDS/Stanford longitudinal research study in Yingzhou District of Fuyang, China



The first HIV/AIDS case was identified in China in 1985. Today, an estimated 700,000 people are living with HIV/AIDS in China. In June of 2008, TeachAIDS partnered with the Fuyang AIDS Orphan Salvation Association and the AIDS Policy Research Institute at Tsinghua University to localize our HIV/AIDS materials in response to Chinese cultural sensitivities. The team at Fuyang AIDS Orphan Salvation Association was featured in the 2006 Oscar Winning Documentary, *The Blood of Yingzhou District*, for its tremendous outreach efforts. Over the span of several months, we collaborated using the same rigorous pre-assessment and post-assessment research methods and development processes TeachAIDS had previously created, to build culturally-sensitive animated materials for young people in China. We used a special research-based back-translation process to ensure the accuracy of our materials.

In June through August of 2008, the TeachAIDS animations were shown to hundreds of students, across several middle schools, as part of an educational campaign to raise awareness in the Yingzhou District of Fuyang, an area highly infected with the virus. Because the children in these communities had never used computers, due to limited resources, the TeachAIDS team developed a special linear (video) version to be used in the awareness campaigns. Our materials were received with great excitement and outperformed the materials traditionally used to promote HIV/AIDS awareness in the classrooms. We are continuing to conduct research in these areas to further iterate, fine-tune, and extend the Chinese versions. In addition to the Mandarin animations, Cantonese versions will be available soon.

“Our team has been working to spread awareness of HIV/AIDS for years in cities all over China. When the children saw the TeachAIDS animations for the first time, their eyes lit up with delight. They were much more focused with the TeachAIDS animations as compared to previous HIV/AIDS materials. When we visited the schools months later, we were thrilled to learn that these children still remembered the lessons learned and had shared them with their loved ones.”

Ying Zhang,
Director and Founder, Fuyang AIDS Orphan Salvation Association,
Fuyang, China



Vietnam currently has approximately 132,000 HIV positive individuals and over 15,000 that have already died of AIDS. HIV is found throughout the country, in all 64 of Vietnam's provinces and 96% of its 659 districts.

Recent estimates suggest young people are most vulnerable to an HIV-infection. With more than three quarters of the HIV/AIDS cases between 20-39 years old, and one in ten cases under the age of 20, it is imperative to spread awareness among young people. A recent survey by the government's Behavioural Change Communication program found that less than half of youth (ages 15-24) were able to correctly identify the ways of HIV transmission.

TeachAIDS is in the process of developing two culturally-appropriate Vietnamese versions (one with a northern accent and one with a southern accent) for youth in Vietnam. Our materials will be launched at a global conference in Hanoi led by the Southeast Asian Development Program (SEADS) at Stanford and sponsored by the Ministry of Science of Vietnam and the Institute of International Relations in Hanoi. In 2009-2010, youth leaders from the conference will use the TeachAIDS materials to raise awareness in urban and rural schools throughout Vietnam.

“The TeachAIDS materials are an exquisite example of bridging high-quality necessary information with brilliant technique. Our youth in Vietnam have been very pleased with the materials and our conference leaders plan to disseminate the TeachAIDS materials to numerous schools and other organizations throughout Vietnam.”

Diep Nguyen,
President, SEADS Conference 2009,
Hanoi, Vietnam

India

India has the world's third-largest HIV-positive population, after South Africa and Nigeria. At this stage, it is imperative to provide effective prevention education to keep the virus from spreading further. However, India's socially conservative culture often inhibits open communication of various modes of HIV transmission. Furthermore, its diverse population, consisting of dozens of distinct cultures, over 200 languages and dialects, and overwhelming class-related issues, present daunting challenges. Any form of education must be sensitive to the complex regional differences, culture, and history in order to raise awareness and promote change in knowledge, attitudes, and beliefs.

TeachAIDS is working with numerous organizations throughout India to help face many of these challenges. The National AIDS Control Organization (NACO), operating under the division of the Ministry of Health & Family Welfare (Government of India) formally approved the TeachAIDS animated materials for use in India. NACO has taken the initiative to replicate the TeachAIDS animated materials locally and disseminate them as part of their larger national awareness campaign. The TeachAIDS materials will be implemented as part of NACO's in-school and out-of-school youth programs. In the state of Karnataka, which has one of the highest infection rates in India, the government has approved the implementation of the TeachAIDS animations into more than 5,500 secondary schools.

“TeachAIDS materials have proven to be engaging to students of all ages. Not only are our teachers and students comfortable and excited about the animation, but the parent community has been extremely supportive of it, primarily because it is culturally appropriate in challenging ingrained Indian sensitivities. There is no doubt that millions of school children in India will benefit from it in the coming years.”

Sabitha Ramamurthy
President, CMR Jnanadhara Trust
Bangalore, India

TeachAIDS conducted a large-scale study in India that demonstrated significant gains in learning and retention, and positive changes in attitudes, after exposure to our animations. Our partnership with numerous nongovernmental organizations, institutions, and other entities has enabled us to customize versions of the animations, specific to various social and cultural contexts. Several popular cultural icons have already donated their voices for the different language versions including Shabana Azmi, Nagarjuna, Amol Palekar, Prashanta Nanda, among numerous others.

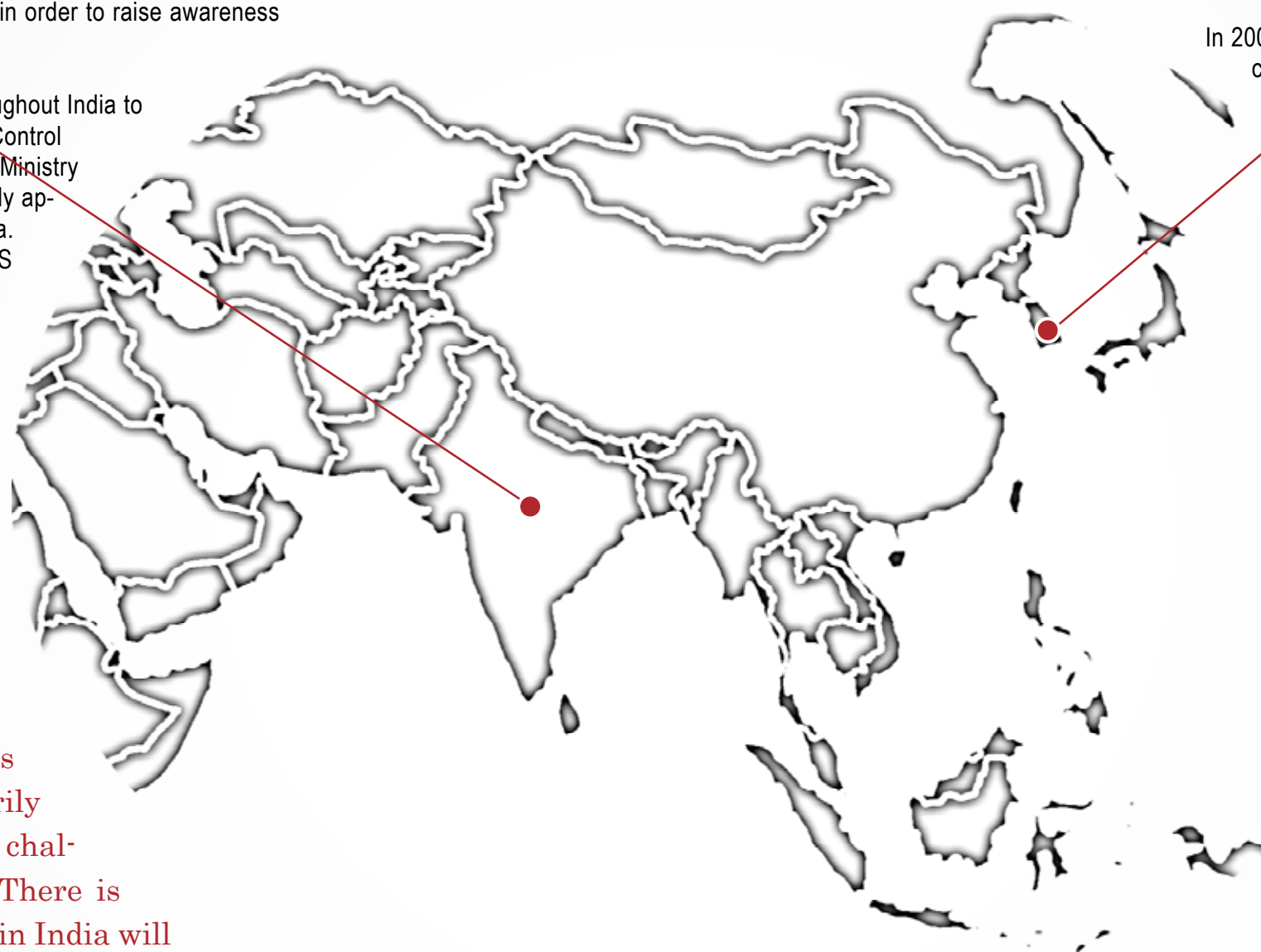
South Korea

Similar to other Asian nations, South Korea shares a conservative culture, making open discussions about sexual practices often challenging. With less than 0.35 percent of individuals infected, the primary mode of HIV transmission is through sexual encounters. Although parents may shy away from open discussion about such sensitive topics, the South Korean government and other health-related agencies strongly encourage educators to address these topics in classroom discussions to help promote the message of prevention.

In 2006, TeachAIDS actively started working with the Korean National Medical Information Center (MedRIC) and Care and Visual, Ltd. in order to develop culturally-appropriate HIV/AIDS awareness materials. Using materials developed at Stanford, a team of talented animators, who also happened to be medical experts, professionally animated our prevention materials. These materials were funded by numerous entities, including the Ministry of Science and Technology of South Korea. The general version of the animations is available for free on MedRIC's public health website.

“The TeachAIDS animated tutorials are a truly unique and highly effective way to educate the masses about HIV/AIDS prevention issues. As a medical doctor and university professor, I see so much miscommunication around HIV transmission issues. TeachAIDS has discovered an innovative approach to educating about sensitive subjects to dispel these myths. We have been disseminating these materials for several years now to the Korean population and have received an incredible response to them. We are proud to be partnered with TeachAIDS.”

Dr. YoungSung Lee
Professor, College of Medicine, Chungbuk National University
Director, Medical Research Information Center
Ministry of Education, Science and Technology, South Korea



Rwanda

In addition to institutional and governmental collaborations, TeachAIDS has also worked with multiple established NGOs throughout Africa that work directly with the ground realities of the virus. TeachAIDS partnered with CARE International in Rwanda to develop and pilot interactive learning tools for rural communities in the local language, Kinyarwanda. The animations will be used as a part of Communities Allied Against Violence and AIDS (CAVA), an outreach project targeting 35,000 community members, including primary and secondary schools staff, young adults, and health service providers. The TeachAIDS animated tutorials feature voices from famous personalities, which were recorded at the popular Rwanda Cinema Center. The Kinyarwanda animations were recently featured as part of the 2010 World Cup celebrations, with thousands of people watching the animations on large screens in an outdoors stadium setting.

In Rwanda, women and children are particularly vulnerable to HIV/AIDS. Recent data suggest that females (ages 15 to 24 years old) are five times more likely to be HIV positive compared to their male counterparts. Children are also greatly impacted by the HIV/AIDS pandemic; estimates reveal that the virus has already orphaned 1.25 million children.

Benin

Approximately 1.8 percent of the Beninese population is infected with HIV, with 14,000 currently seeking antiretroviral therapy. In mid-2009, TeachAIDS partnered with numerous organizations including the United States Peace Corps, Population Services International, Benin, and the Benin Education Fund to develop a Beninese/Francophone version of the animations that targets West African countries. The interactive and linear versions of the animations will supplement existing HIV/AIDS outreach and prevention materials used by these organizations to raise awareness throughout West Africa.

“We have looked for these types of culturally-specific materials to improve our interactive activities targeting Beninese youth for a long time.”

Hugues Pascal Sègbédé Setho
Head of Youth Programming
Population Services International, Benin

Botswana

Botswana has the second-highest HIV/AIDS prevalence rate in the world. An estimated 23.9 percent of the adult population is HIV-seropositive. This has contributed to a significant drop in life expectancy from 65 years to less than 40 years between 1990 and 2005. The illness has orphaned 64 percent of children between the ages of 10 and 18.

Former President of Botswana and celebrated HIV/AIDS champion, Festus Mogae, officially endorsed TeachAIDS’s efforts. Partnered with the Ministry of Education, the TeachAIDS animated tutorials are being customized and will be launched nationally on World AIDS Day 2010 into every primary, secondary, and tertiary institute across the country. The TeachAIDS materials will also be made available for free to educators operating in informal learning environments (such as churches, after-school programs, boys and girls clubs, and village outreach programs) and any other organizations operating outside the scholastic environment. Grants from UNICEF and Yahoo! will enable the program to be delivered to over half-a-million learners from ages six to twenty-four. A number of celebrities including Zeus, Jazzelle, Tref, and Scar, a judge on East African Idol, have generously donated their voices towards the animated works.

“TeachAIDS offers Botswana an opportunity to become re-engaged in HIV/AIDS education. With its interactive, fun, and fresh approach, TeachAIDS will assist Botswana youth in overcoming the ‘HIV learning fatigue’ and instill a deeper level of interest in HIV prevention. A customized, culturally adapted tool will reach out to our learners on a new level, promoting ownership and information retention. TeachAIDS will be used to strengthen and support pre-existing prevention programs among learners at all levels.”

Lila Pavey
HIV Specialist/Technical Advisor
Ministry of Education and Skills Development
Gaborone, Botswana

South Africa

With an estimated 5.7 million people infected, South Africa is home to the largest number of HIV-seropositive individuals in the world. It also has the biggest HIV/AIDS treatment program; unfortunately, it falls short of the tremendous need for antiretroviral treatment throughout the country.

Facing multifaceted taboo-ridden issues, TeachAIDS was approached by numerous organizations in South Africa to combine efforts and face these challenges. In November 2008, we partnered with Central Johannesburg College, one of the 49 publicly-funded Further Education and Training colleges in South Africa. We analyzed the efficacy of various HIV/AIDS education materials amongst the college's 7000 students across five campuses. Based on original Stanford Institutional Review Board-approved research, we conducted a baseline study in the college and are currently launching large-scale pre-assessment and post-assessment studies to evaluate knowledge levels and attitudes of these college students. The results will be used to customize pedagogically-grounded and culturally-appropriate interactive materials to better address issues related to stigma and discrimination in South Africa. The materials will be disseminated throughout the country in partnership with several local non-governmental organizations and institutions working tirelessly to spread awareness and change behaviors.

“TeachAIDS in the South African context presents a fresh intervention from the currently overloaded and competing ABC messages targeted at youth. The animation tool provides a platform for direct engagement with youth in a scientific, simple, and friendly manner that creates an individualized and safe learning environment. In the context of the Central Johannesburg College, the tool provides a supplementary support to the Life Skills Curriculum.”

Kokeb G. Kassaye
Program Manager, Central Johannesburg College Workforce and Youth Development
Institute for African Innovation (IFAI)
Johannesburg, South Africa

Tanzania

The first case of an HIV infection in Tanzania was reported in 1983, more than a decade after other countries in sub-Saharan Africa. Initially, the urban communities were hit the hardest. However, since 1997, the epidemic has quickly spread through rural sectors, greatly impacting the epidemiological conditions there. Today, the AIDS epidemic has most impacted the active working class of adults in Tanzania. Individuals ages 15 to 45 are most at risk, with some groups, like rural women, having infection rates as high as 44.4 percent.

Recently, TeachAIDS partnered with Support for International Change (SIC), a non-governmental organization that helps to limit the impact of HIV/AIDS in underserved communities and to train future leaders in international health and development. In 2010, SIC will use the TeachAIDS animated materials as part of its outreach efforts to educate vulnerable populations, particularly in rural areas. SIC works in partnership with communities in rural northern Tanzania, serving populations that would otherwise have minimal access to necessary services to combat the virus.

TeachAIDS will develop both video and interactive versions of the Swahili animations that can be used by numerous organizations in Tanzania and other countries, such as Kenya, where Swahili is popular. The video versions of the animations will be particularly useful in areas with limited computer access or unreliable Internet connectivity.

“Knowing the extent of the HIV/AIDS problem in East Africa, and having lost three close relatives to the epidemic, TeachAIDS’ development of this tool for the region gives me so much hope. The availability of these materials in Swahili, a language that is accessible to most people in East Africa, will contribute greatly in raising awareness and fighting the scourge.”

Sangai Mohochi
Founder and Chairman
Laurenti Mohochi Education Foundation



United States

There are about 40,000 new HIV infections every year in the United States of America, with almost half of them occurring in the African-American community. Over the last decade, the HIV infection rate has been growing, particularly within certain racial or ethnic groups. The rate has doubled among African-American communities, which is seven times greater than that of the Caucasian community. Moreover, the rate among Hispanics is three times higher than that of the Caucasian community. The high prevalence rates extend even to the nation's capital. Three percent of Washington, D.C. residents are HIV-seropositive, giving the city epidemic status.

“In earlier discussions about health, sex education, and STDs, it was clear that students from different cultures had different comfort levels engaging with the content. However, with these animations, I felt as though most students were equally comfortable and engaged. By simultaneously connecting graphics, text, and audio, it reinforced the important concepts and new vocabulary words.”

Harriet Huang
Science Teacher, Teach for America
California, United States of America

TeachAIDS has joined efforts with numerous educators and organizations throughout the United States to help spread awareness about HIV/AIDS. Our materials are being used in formal learning environments, like biology and science classes, as well as informal learning environments, like afterschool programs. Through our partnership with the Stanford Program on International and Cross-Cultural Education, our animated tutorials and Educator Handbook has been made freely available to K-12 schools throughout the country including the Chicago Public Schools, which has more than 600 schools, the New York Department of Education, which has more than 1600 schools, the Los Angeles Unified School District, which is the largest in the United States, the San Francisco Unified District, and the District of Columbia Public Schools, one of the largest in the nation.

Canada

As of 2007, there were an estimated 73,000 people living with HIV in Canada, an increase of nearly 50% from the 2001 figure of 49,000. While drug users remain the highest risk group in Canada, with 13.2% of drug users in capital cities testing positive for HIV, the overall increase in people living with HIV underscores the need for comprehensive HIV prevention education and stigma reduction.

“I was having tremendous difficulty locating good approaches to teach kids about HIV/AIDS, when I came across your website. The TeachAIDS tutorial captured everyone's attention. I was surprised at how attentive the 13 to 18-year-old students were to these materials, especially considering the sensitivity to this topic. The language is simple, the animations are eye-catching, and the messages are clear. The TeachAIDS team has done an amazing job with this.”

Lena Koh
Canadian International Development Agency
Youth Internship Fellow 2007
Rural Health Education Project, Algonquin College

TeachAIDS has partnered with several health professionals and organizations in Canada including AIDS Vancouver, an organization aiming to alleviate individual and collective vulnerabilities to HIV/AIDS through support, public education, and community-based research. AIDS Vancouver is using the animated materials as part of its toolkit to help educate new staff, board members, volunteers, and community partners about HIV-related issues. Using a large screen to display the animated materials, AIDS Vancouver is taking an interactive approach to educating, in order to meet the diverse needs of its learners.

The TeachAIDS materials were developed to be easily accessible to educators and scalable to various contexts and environments around the world. Directions and equipment for the materials are included in this kit, as are several examples of how to use the TeachAIDS materials in both formal (e.g., schools) and informal (e.g., museums, after-school programs) learning environments.

Below is a list of items you may find useful for your TeachAIDS session.

- Computer
- Projector / Projector Screen / Wiring Computer
- Speakers
- Headphones
- Internet access

Installation, Setup, and Usage

1. Playing TeachAIDS from a CD-ROM: To view the animations, insert the TeachAIDS CD-ROM into your computer's CD or DVD drive. Once the disc is inserted, it will start playing automatically. In the event that the disc does not begin playing, find the icon for your computer's CD-ROM drive (usually within 'My Computer'), and double-click on the html file to start the animation. Once the program has begun it should play through all of the animations automatically.

If you wish to run the animation on several computers, you may copy the contents from the CD-ROM into a new folder on each computer hard drive. Remember to copy all of the files from the CD-ROM into a single folder on your computer. After copying the files to your computer, the animations will run independently of the CD-ROM. You can then access the animations by clicking on the html file directly from your computer.



Children viewing the TeachAIDS animations projected on a large wall in Pietermaritzburg, South Africa

2. Playing the animations from the Internet: All of the TeachAIDS animations can be accessed freely from the TeachAIDS website (www.teach aids.org). To play the animation from the Internet, type www.teach aids.org/tutorials.php into your Internet browser and click on the animation you wish to view. In order to access the animations online, you must have Adobe Flash Player installed on your computer. You can download it for free at: <http://get.adobe.com/flashplayer/>. Note that the animations are viewed best with high-speed Internet access. If you are at a location with limited Internet access, you may choose to install the animated materials on your computer directly using the CD ROM.

3. Using the speakers/headphones: In addition to subtitles, the TeachAIDS animations include audio. If learners are interacting with the materials on multiple computers in a single room or public area, you may consider having students use headphones in order to avoid distractions from other computers. If the animations are being viewed on a single computer, consider connecting them to speakers to project volume.

4. Displaying the animations with a projector: If there are a limited number of computers, or you want to run a session with many learners viewing the materials together, it may be helpful to show the animation using a projector. Simply connect the projector to a computer and play the animations according to the instructions above. Since the animations are interactive, you may choose to click through them in a linear fashion. Alternatively, you may pause the animation between each chapter to give learners the chance to discuss relevant issues. Example: try letting learners answer the questions posed by the doctor character in the "Doctor's Challenge" chapter. You can let the doctor ask questions and then encourage learners to raise their hands for whether they think the answer to the question is 'yes' or 'no.' You can then proceed by clicking on the most popular answer in the animation to let students see if their chosen answer was correct.

Note: All versions of the animations—video/linear (with no interactivity) or interactive—can be accessed directly from www.teach aids.org.



Students viewing TeachAIDS animations as part of the Teach For America program in Oakland, California

One Computer, One Learner: If your learning environment is set up to accommodate one computer per learner, each learner can access the animation individually (using his/her disc drive or the Internet) and work at his/her own pace. To allow learners to focus on the animation, it may be useful to have them begin the animation at the same time and avoid discussion until group-wide breaks. The end of each chapter provides a useful point for discussion. Learners may also print out their score on the Doctor's Challenge (if they are using the interactive version of the animation) for later discussion. Working independently can make sensitive subjects, like learning about HIV prevention and transmission, more private and comfortable. If using this setup, remember to provide headphones for each station. *Resources required: Computers with headphones, CD/DVD drive and/or Internet access*

One Computer, Few Learners: If you have a limited number of computers or if you would like to encourage interactivity among your students, multiple learners can use one computer to view the TeachAIDS animations together. With this setup, remember to connect speakers to the computer, increase the volume to an adequate level, and unplug any attached headphones. When multiple learners are watching the animation on a single computer, it becomes important to keep each student focused. One way to address this problem is to utilize supplementary worksheets and activities, examples of which are included in this handbook on pages 26–31. This setup is optimal with small groups (2–4 learners) sharing one computer. *Resources required: Computer connected to speakers, CD/DVD drive and/or Internet access*



Youth from Stepping Stones International nonprofit using TeachAIDS materials in Gaborone, Botswana



Chinese middle school students enjoying the TeachAIDS animation

One Computer, Many Learners: If you would like to run a session with many learners viewing the animation simultaneously, you can project the animation on a screen (or wall) to be viewed by all. Make sure the computer is connected to the projector with the appropriate wiring. Most importantly, make sure the learners are seated so they can view and hear the animated materials without obstruction. The animation can be played in a linear fashion from beginning to end, resembling a movie or presentation, or paused between chapters to encourage discussion. With this setup, learners may or may not feel comfortable asking questions or discussing concepts with their peers. You may want to supplement the animations with other activities (examples of which are included in this handbook) to facilitate a greater focus on individual learning. *Resources required: Projector connected to a computer with appropriate wiring, speakers, CD/DVD drive, and/or Internet access*

Name: _____ Date: _____

TeachAIDS Worksheet

1. Name the three high-risk fluids through which HIV can be transmitted:

2. A mother infected with HIV will always pass HIV to her infant during delivery. True False
☐ ☐

3. You can get HIV from hugging an infected person. ☐ ☐

4. You can get HIV from going to the restroom used by an infected person (using a toilet). ☐ ☐

5. You can get HIV from kissing an infected person (mouth to mouth). ☐ ☐

6. You can get HIV from an infected person sneezing on you. ☐ ☐

7. You can get HIV from talking with an infected person. ☐ ☐

8. You can get HIV from drinking polluted water. ☐ ☐

9. You can tell by looking at a person whether he/she has HIV or AIDS. ☐ ☐

10. You can get HIV from farm animals (e.g., chickens, pigs). ☐ ☐

11. There is a cure for HIV/AIDS. ☐ ☐

12. You can get HIV from a mosquito bite. ☐ ☐

13. You can get HIV from sharing plates, silverware, or cups with someone with HIV. ☐ ☐

14. You can get HIV from living in the same house as an infected person. ☐ ☐

15. You can get HIV from touching an infected person's blood with your finger. ☐ ☐

16. You can get HIV from eating food that is made by an HIV-infected person. ☐ ☐

17. You can get HIV from sharing needles and syringes with an HIV-infected person. ☐ ☐

18. Cold, cough, and fever are symptoms of HIV. ☐ ☐

19. Mark whether each of the following fluids is high risk or no risk:

Body Fluids	High Risk	No Risk
Blood	<input type="checkbox"/>	<input type="checkbox"/>
Saliva	<input type="checkbox"/>	<input type="checkbox"/>
Breast milk	<input type="checkbox"/>	<input type="checkbox"/>
Sweat	<input type="checkbox"/>	<input type="checkbox"/>
Tears	<input type="checkbox"/>	<input type="checkbox"/>
Sexual fluids	<input type="checkbox"/>	<input type="checkbox"/>
Urine	<input type="checkbox"/>	<input type="checkbox"/>

20. In what ways does HIV transmission occur? (Hint: Consider direct Transfer.)_____

21. What disease can HIV lead to? _____

22. What is the best way to protect yourself from HIV?

☐ Prevention ☐ Eating healthy ☐ Exercising ☐ Using drugs

23. The immune system is like a(n)

☐ Factory ☐ Army ☐ House ☐ Hospital for sick people

24. What does HIV stand for?

H: _____ I: _____ V: _____

25. HIV *can* be transmitted through which one of the following fluids?

☐ Stool ☐ Cow's milk ☐ Breast milk ☐ Sweat

26. HIV *cannot* be transmitted through which one of the following fluids?

☐ Sexual fluids ☐ Saliva ☐ Breast milk ☐ Blood

27. What is the Triangle Test? _____

28. Which of the following can help prevent you from getting HIV?

☐ Exercise ☐ A healthy diet ☐ Condoms ☐ Mosquito nets

29. Is it easy to get tested for HIV?

☐ Yes ☐ No

30. Who can be infected with HIV if not cautious?

☐ Poor people ☐ Women ☐ Men ☐ Healthy people
☐ Married people ☐ Rich people ☐ Religious people ☐ Anyone

The following activities were designed to be useful and scalable to learners, regardless of country or age group. Younger learners may ask simple questions, while older ones may ask more complex ones. Alternatively, young ones may ask about complex ideas, while older students may refer to fairly basic ones. Regardless of the demographic involved, these activities will create a safe environment in which to encourage public discourse and raise awareness about HIV/AIDS-related issues and concepts.

Black Box

Many students feel uncomfortable talking about HIV/AIDS, particularly the circumstances surrounding its transmission. Others may be willing to share information they know about HIV/AIDS, provided that they are in a safe space. One way to encourage students to share their knowledge or ask questions is to allow them to anonymously post facts they know in a public space, which we will call a Black Box. You can conduct this activity before the TeachAIDS animation to gauge what the students already know and the misunderstandings they may have, or after the animation to answer any additional questions.

For this activity, you will want to create a safe space in order to encourage open discussion. Set rules for the safe space, such as not allowing students to interrupt or laugh at each other during the discussion. You may also want to change the physical space/location of the students, which will in turn influence the group dynamics of the learners (sit in a circle, face each other). After setting up a safe space, encourage students to think about questions they have and facts they know about HIV/AIDS. Give each student two blank pieces of small paper/cards. On the first piece, ask the students to write something they know about HIV/AIDS that would be helpful to others. On the second sheet, ask the students to write a question they have about HIV/AIDS. Give the students an adequate amount of time to come up with their facts and questions and encourage them to complete the activity independently to encourage discussion of different ideas. Make sure to let the students know that no question is improper or unintelligent, and ask them to fold the papers after they have finished with them.

After the students finish writing, walk around with two boxes (or other containers) and collect all of the pieces of paper, keeping the two categories separate. Collect the anonymous facts/questions and read them aloud to the class before interacting with the animation. You may want to write the main concepts/themes drawn from the anonymous papers on the board or compile them into a document. After your students interact with the animation, reread the questions and allow the students to answer them with their new knowledge. You can also have them individually research the answers and then regroup to discuss misconceptions. This activity allows more reserved learners to voice their concerns without drawing attention to themselves, while empowering students to share critical information with one another. Be sure to discuss whether the ideas they know are true, where they learned them, and the resources they can access to further investigate their questions and/or concerns.

Ideas to Keep in Mind

As you perform these additional activities with your students, you want to keep in mind the key points that the TeachAIDS materials aim to address. By including these in your activities, learners will discover these ideas in multiple situations, cementing their understanding of these sometimes difficult concepts. Below are some general topics to include in the activities on the these pages.

- The Triangle Test
 - Direct Transmission
 - Anyone Can Be Infected
 - The Immune System
 - HIV Testing
 - No Infection Through Animals
 - The 3-Point Mantra and High Risk Fluids
 - How HIV/AIDS Affects the World
- Prevention Methods
 - Personal Connections to Individuals with HIV/AIDS
 - Open Discussion
 - The Government’s Role
 - Symptoms
 - HIV Vs. AIDS
 - Treatment
 - Spreading Awareness of HIV/AIDS

Cross the Line

There is often tremendous misinformation circulated among young people about HIV/AIDS and related concepts, particularly around the transmission of the virus. In addition, basic facts remain unknown to many learners, which increases stigma around this topic. Although many people have questions about HIV/AIDS, individually they may feel alone in their opinions and ideas. With this in mind, it is important to create a sense of community among your students so that they feel connected and more comfortable talking to each other. Cross the Line is an interactive activity that builds awareness of diversity within a group while creating a necessary sense of unity. The activity serves to help students learn more about themselves and their peers, reflect on their self-identities, and appreciate the differences between various opinions.

To perform this activity you will need a large open space (so the students can stand in one single line), along with a number of “yes” or “no” questions related to facts and opinions about HIV/AIDS. Use some sort of a marker to create a line down the middle of the space (e.g., tape, stones). The line should be long enough so that every student can stand next to each other along the line. If space is limited, the students can stand in two parallel lines facing each other. Ask each question out loud, and for every question have the students who “agree” or answer “yes” cross over the line and the ones who “disagree” or answer “no” remain in place. You can ask the students to close their eyes while you ask your question and then make their decision to step forward or remain in place. After taking action, you can allow them to open their eyes and look around them. Make sure you provide students with enough time to decide whether they want to cross the line; they should not feel rushed. It is usually best if this activity is conducted with no discussion. The instructor should ask the students to be silent and express their opinions only through their actions. A full discussion can take place after the end of this activity or after interacting with the animation. This activity works for learners of all ages and is best conducted before viewing the animation.

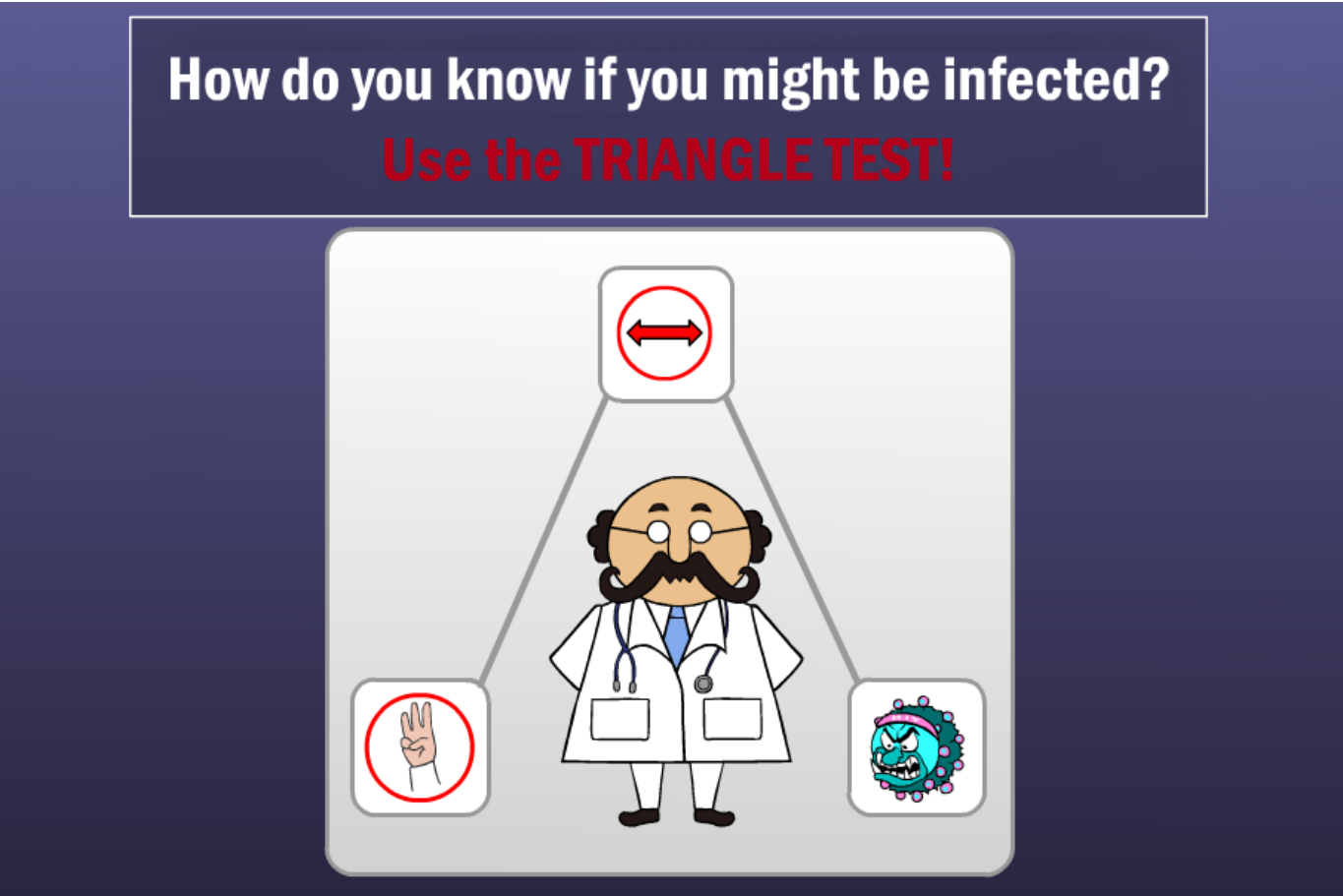
When selecting questions, you will want to start with easier, less controversial questions and work up to more difficult and thought-provoking ones. Some sample questions include:

- *Cross the line if you are from _____.*
- *Cross the line if you are female.*
- *Cross the line if you have at least one brother or sister.*
- *Cross the line if you have heard anything about HIV or AIDS.*
- *Cross the line if you think you know everything about HIV/AIDS.*
- *Cross the line if you know someone infected with HIV/AIDS.*
- *Cross the line if you know someone who has died from HIV/AIDS.*
- *Cross the line if you believe anyone can be infected with HIV/AIDS.*
- *Cross the line if you would be friends with someone with HIV/AIDS.*
- *Cross the line if you would share a room with someone with HIV/AIDS.*
- *Cross the line if you are scared about being infected with HIV/AIDS.*

Two Truths and One Myth

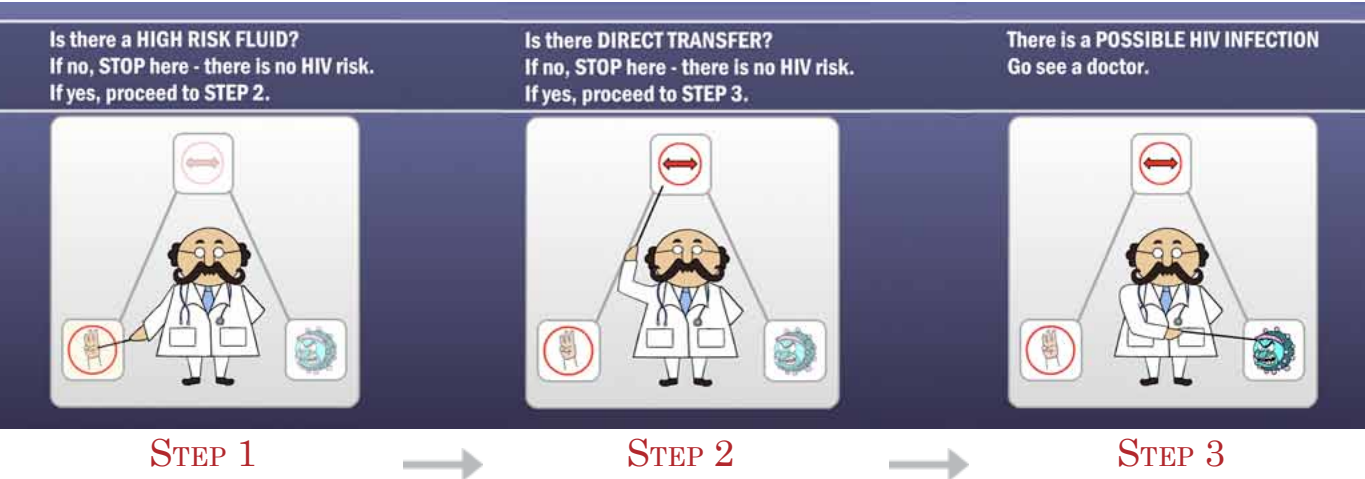
This interactive session is recommended after all the students have completed the animated HIV/AIDS materials. Ask each student to take a few moments to think about two correct facts and one incorrect fact or common misunderstanding about HIV/AIDS. If possible, seat all the learners in a circle so that they can see each other to foster interactivity and open discussion. Go around the circle and have each person state the “two truths” and “one myth” in any order they wish. Students should try to trick the rest of the group or make it difficult for them to guess which statement is the actual myth. After a student has stated all three phrases, the group must guess which presented fact was actually a myth. After the group has reached a consensus the person making the statement will reveal the correct answer. This student may draw upon various concepts outlined in the animated materials, or ideas he/she knew from the past, to develop the three statements. After each “myth” is revealed the entire group can discuss the particular item in detail, including why it may or may not be a common misunderstanding.

Triangle Test Activity



Use the triangle test (from the TeachAIDS animation) to answer the following questions.

- Can you get HIV from swimming in the same area as someone who is HIV-infected?
- Can you get HIV from drinking dirty water?
- Can you get HIV from sharing plates, forks, or glasses with someone who is HIV-infected?
- Can you get HIV from being friends with someone who is HIV-infected?
- Can you get HIV from eating food prepared by someone who is HIV-infected?
- Can you get HIV from donating blood to an authorized blood bank?
- Can you get HIV from touching infected blood with your finger?
- Can you get HIV by living with someone who is HIV-infected, even if you have no sexual relations with him/her?
- Can you get HIV from farm animals?
- Can you get HIV from taking care of someone who is infected?



Open Discussion

Below are selected open-ended questions that may help your class begin a more open discussion around HIV/AIDS and other related topics. Based on the comfort levels of your learners, please take the necessary steps to create an environment that maximizes discussion and learning.

1. What can you do to help promote awareness of HIV and AIDS?
2. What were some of the misconceptions you had about HIV transmission before interacting with the animated tutorial? How has your knowledge changed since further learning about the subject?
3. Do you think people with different backgrounds and demographics (e.g., culture, gender, race) view HIV/AIDS differently? Why or why not?
4. What segments of the population are at the greatest risk of HIV infection?
5. Do you think most young people are aware of the risks surrounding HIV/AIDS? Do they consider themselves at risk from the virus? Brainstorm innovative suggestions to make young people more aware of HIV/AIDS.
6. With your new knowledge, what are you going to do to take precautions to protect yourself and your loved ones from getting infected?
7. What can we as a society do to make HIV-infected individuals feel less isolated?
8. What questions do you still have about HIV and AIDS? What can we do as a class to address them? What can you do individually to address them?

Answer Key to TeachAIDS Worksheet

- | | |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Blood; Breast Milk, Sexual Fluids | 19. High Risk; No Risk; High Risk; No Risk; No Risk; High Risk; No Risk |
| 2. False | 20. Direct transfer is entrance of infectious agents into body through cuts/wounds on skin or natural openings like mouths or private parts. |
| 3. False | 21. Acquired Immunodeficiency Syndrome (AIDS) |
| 4. False | 22. Prevention |
| 5. False | 23. Army |
| 6. False | 24. Human Immunodeficiency Virus |
| 7. False | 25. Breast Milk |
| 8. False | 26. Saliva |
| 9. False | 27. The triangle test is a mnemonic device that helps learners assess whether they are at risk of an HIV infection. |
| 10. False | 28. Condoms |
| 11. False | 29. Yes |
| 12. False | 30. Anyone |
| 13. False | |
| 14. False | |
| 15. False | |
| 16. False | |
| 17. True | |
| 18. True | |



Dr. Seble Kassaye is an Instructor of Infectious Diseases at Stanford University, where she researches issues related to mother-to-child transmission, HIV prevention, drug resistance, and monitoring of HIV treatment. She is trained in Internal Medicine, Pediatrics, Infectious Diseases, and Epidemiology. Dr. Kassaye also practices medicine as an Infectious Diseases physician at Stanford Hospital and the San Mateo County Medical Center.

1. What is the difference between HIV and AIDS?

SK: HIV stands for Human Immunodeficiency Virus. Viruses differ from other infectious agents, such as bacteria, in their need to infect and use the host in order to multiply. The body's immune system generally protects us from foreign invaders like viruses and bacteria. However, in the case of HIV, the virus attacks and destroys our immune cells called CD4 cells. HIV infects these cells and uses their cell parts to replicate itself. Many new HIV particles are then released from the infected CD4 cells, and the cycle of infection continues. Following virus multiplication, the infected CD4 cells die, and their decreased numbers drastically reduce an HIV-infected person's ability to fight foreign agents.



Adults learning from the video version of the TeachAIDS animation in Vancouver, Canada

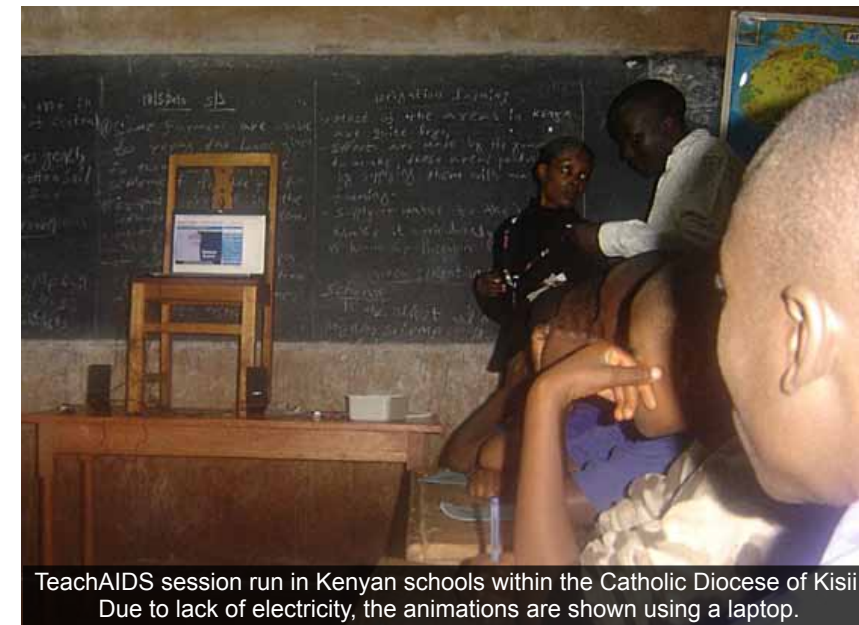


Chinese middle school students explaining what they have learned after viewing the TeachAIDS animation

AIDS stands for Acquired Immunodeficiency Syndrome. This syndrome was first recognized in 1981, when young, previously healthy individuals were identified to have uncommon infections usually seen in people with impaired immune systems. These infections, known as opportunistic infections or AIDS-defining illnesses, arise due to a weakened immune system which cannot protect the host from foreign invaders. In 1983, researchers identified the cause of AIDS to be HIV.

2. Where did HIV come from?

RS: HIV appears to have evolved from a virus similar to itself, the Simian Immunodeficiency Virus (SIV), which infects chimpanzees but does not harm them. Multiple alterations of SIV resulted in a virus that was able to cross over to humans and produce immune deficiency. The birth of HIV from SIV is said to have occurred in the African nation of Cameroon perhaps in the early to mid-1900s. Evidence of human HIV infection has been traced back to 1959 in an African man in the Congo, and HIV is known to have been present in the United States by the 1970s, several European countries by 1982, and Asia by 1985.



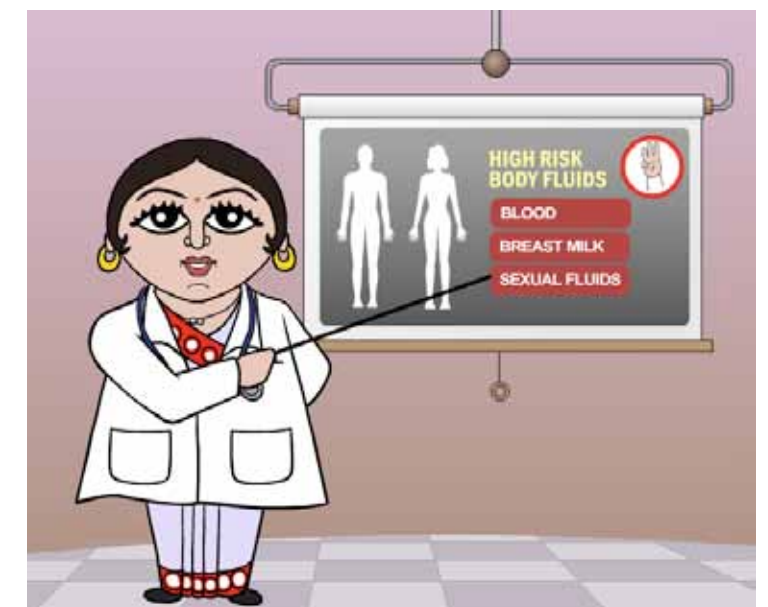
TeachAIDS session run in Kenyan schools within the Catholic Diocese of Kisii. Due to lack of electricity, the animations are shown using a laptop.



Dr. Randall Stafford is an Associate Professor of Medicine and the Director of the Program on Prevention Outcomes and Practices at Stanford University, where he conducts research on how to improve the effectiveness of patient and physician prevention activities. He is trained in both Internal Medicine and Public Health and also practices primary care Internal Medicine at Stanford Hospital.

3. Can I get HIV from mosquito bites?

SK: HIV is a virus that is transmitted through direct contact with infected blood and/or body fluids. It only infects humans. Furthermore, mosquitoes are not hosts for HIV. This is because when a mosquito feeds on humans, human blood is ingested into the stomach of the mosquito. HIV does not survive the digestion process within the mosquito and, thus, does not replicate within mosquitoes. Mosquitoes, then, are a dead-end host for HIV, and the life cycle of HIV cannot be completed within the mosquitoes, blocking HIV transmission to humans.



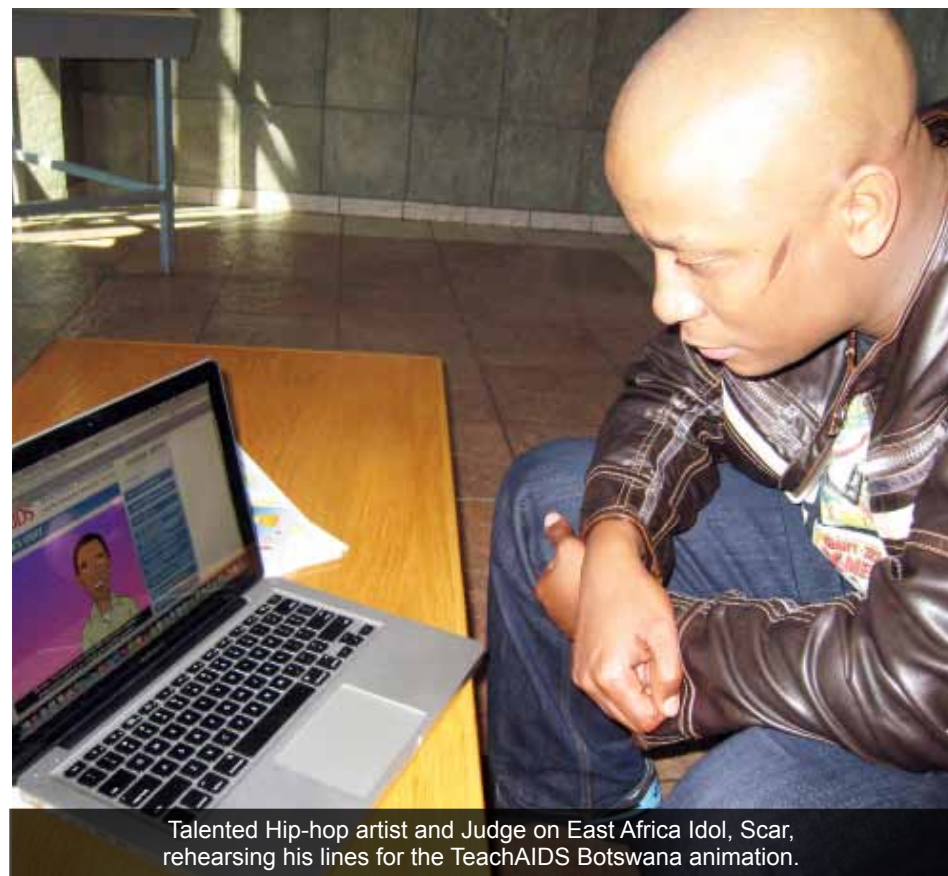
4. Can I get HIV from using an HIV-infected person's hygienic products, like toothbrushes or razors?

RS: HIV is not spread by casually touching an infected person or their belongings. The virus itself does not survive outside of human cells for a long period, and its transmission is most likely if blood or sexual fluids have a way of entering the body through private parts or abnormal openings, such as cuts and sores. Although there have been a few scientific reports on possible transmission through razor sharing, these cases are far from definitive. Regardless, because there is a theoretical chance that blood from one individual could be transferred to another by sharing toothbrushes or razors, it is not recommended to use anyone



5. Can I get HIV from a tattoo or a body piercing?

RS: A risk of HIV transmission does exist if instruments that are contaminated with blood are either not sterilized or used inappropriately between clients. The CDC recommends that instruments that are intended to penetrate the skin be used once, then disposed of or thoroughly sterilized. Tattoo businesses in most of the United States follow inspection standards, so the risk of contaminated instruments is low in this country. Regardless of any country's safety requirements, one should always check with appropriate authorities to ensure proper sterilization procedures are being used.



6. Can I get HIV from kissing or casually touching an HIV-infected person?

RS: As I said in my earlier answer, HIV is not transmitted via casual contact. Saliva itself is not a high-risk fluid, except when blood is in saliva because of cuts or sores in the mouth. It is impossible to transmit HIV through closed-mouth kissing or kissing on the cheek. Even if the other person has the virus and has blood in his/her saliva, unbroken skin is a good barrier to transmission. No one has ever become infected from such ordinary social contact as dry kisses, hugs, and handshakes. There is some theoretical risk with open-mouth kissing and deep kissing if sores or cuts are present, but even these activities are considered low-risk activities for HIV transmission.



7. Does pre-chewed food infect babies?

RS: It would be unusual for HIV to pass from a mother to her child in food that is pre-chewed by the mother. For this type of transmission to occur, the mother would need to have open sores that allow blood to get into the food. While the mucous membranes of the baby's mouth could allow transmission, infection would be more likely if the baby also had sores that would allow HIV to pass more easily into his/her body. The food itself is not the problem, but the presence of blood in the food could be.



8. How do I prevent HIV transmission when interacting with an infected person at home, work, or the doctor's office?

RS: It is very difficult for HIV to be transmitted between family members in a household setting. Those cases that have been reported are likely a result of contact between skin or mucous membranes and/or HIV-infected blood. It is reasonable to use universal precautions to prevent even such rare occurrences at home, work, or the doctor's office. For example, practices that increase the likelihood of blood contact, such as sharing of razors and toothbrushes, should be avoided. Gloves should be worn when there is any chance of contact with blood. This same precaution should be used for other body fluids, including urine, feces, and vomit. Cuts, sores, and breaks on either the caregiver's or patient's exposed skin should be covered with bandages. Hands and other parts of the body should be washed immediately after contact with blood or other body fluids, and surfaces soiled with blood should be disinfected appropriately. Moreover, needles and other sharp instruments should be used carefully. These basic universal precautions are present in most doctors' and dentists' offices. In the United States, doctors use sterile equipment for each diagnostic test they perform. Even though the chance of HIV infection is low in these settings, one should always take reasonable measures to ensure his/her safety.



9. What are the different tests available for detecting HIV?

SK: When HIV transmission first occurs, HIV infects CD4 cells. The virus is able to reproduce within these cells very rapidly and is released into the surrounding tissue or blood. The virus disseminates within the entire body, to different organs, within a few days, resulting in a high viral load. Viruses and viral proteins can be detected in the blood in the early infection stage. The infected person mounts an immune response to the virus and begins to make antibodies. These antibodies can be detected within a few weeks of infection. However, some individuals take up to a few months to make enough antibodies to be detected.

Commonly used HIV tests rely on the detection of HIV antibodies. These tests can be performed on blood or oral secretions and are very sensitive in detecting infections but occasionally can be positive even if there is no infection. It is, therefore, common practice to confirm the test by either using a different second antibody detection test or by directly looking for HIV proteins using a test called Western Blot.

If the body has not yet had the opportunity to mount an immune response, or make enough antibodies, it is important to understand that HIV antibody tests can be negative early in infection. This is called a “window period,” meaning the HIV virus is present before enough antibodies are detectable using the above tests. It is, thus, recommended that people who may be at risk of infection return for HIV testing 3 to 6 months after a negative antibody test.

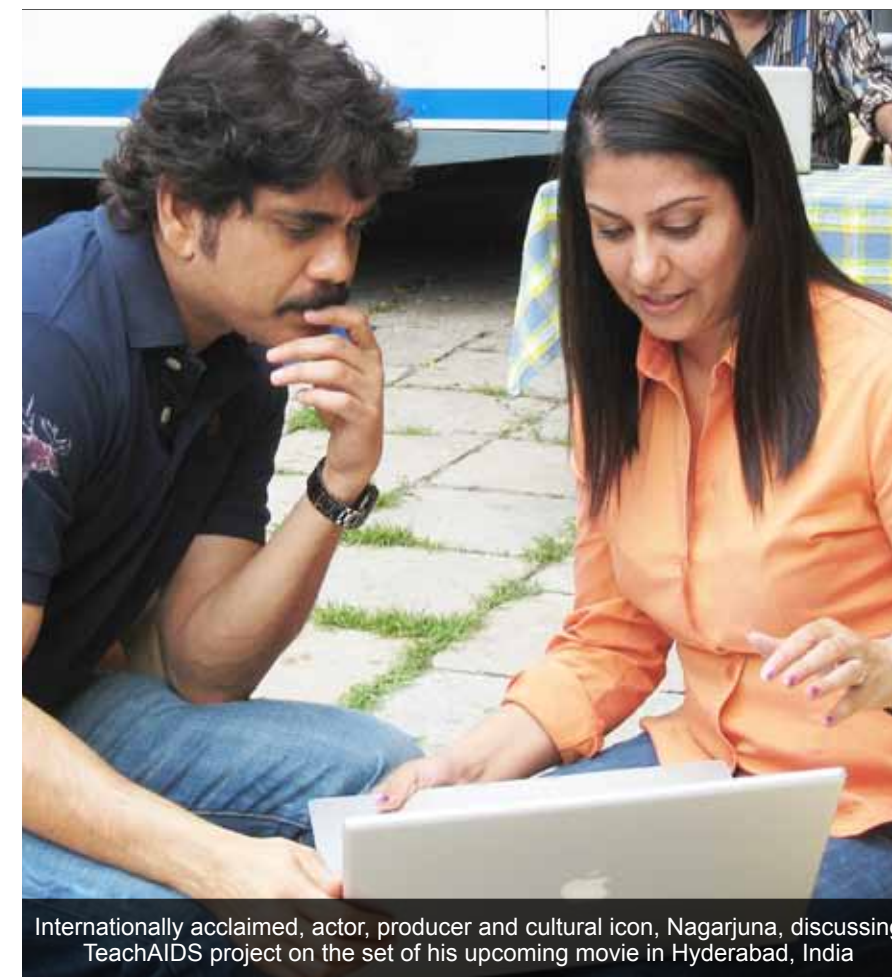
During the time after infection but before enough antibodies to HIV are produced, it is possible to detect infection by looking directly for viral particles and/or proteins. These tests are extremely sensitive in detecting infection but are labor-intensive and expensive to perform. Direct HIV detection methods looking for HIV particles or proteins are performed by blood banks in most western countries. They are sometimes used in research settings, public health departments, and medical facilities. Low positive levels may be inaccurate in identifying infection, and in such cases, the test needs to be repeated to confirm the diagnosis.



10. What vaccines or medicines are there for HIV/AIDS?

SK: Vaccines are primarily designed to prevent infection by exposing the human to either dead or inactivated infectious agents (such as the polio or chickenpox vaccines) or by using protein pieces that resemble the infectious agent (such as the hepatitis B vaccine). Injection with these materials stimulates an immune response in the body and results in full or partial immunity to the infectious agent. The next time the individual is exposed to the infectious agent, the immune system will recognize the agent, and an immune response will be triggered to prevent the infection from taking hold. Now, many vaccines exist to prevent common illnesses. Unfortunately, research efforts have not yet resulted in a vaccine to protect against HIV infection. For infected individuals, medicines are available that can control HIV virus replication, thereby protecting uninfected CD4 cells by limiting the amount of HIV virus that is circulating in the body. However, available medicines do not cure people of the infection. Currently, there are 26 drugs called antiretroviral medications. They target different parts of the viral life cycle. Some are used simultaneously to decrease active replication of HIV, accordingly, reducing the viral load.

There is current research addressing whether antiretroviral medications can be given to uninfected people to prevent HIV infection. This may provide another prevention tool.



Internationally acclaimed, actor, producer and cultural icon, Nagarjuna, discussing TeachAIDS project on the set of his upcoming movie in Hyderabad, India

12. How can ART minimize the chance of mother-to-child HIV transmission?

SK: An infant can become infected with HIV from its mother during pregnancy, delivery of the baby, or breast-feeding. About a quarter of babies are infected if the mother is HIV-positive and no interventions are made. The reason ART decreases the chance of vertical transmission is that it reduces the amount of infectious HIV circulating in the blood stream and other bodily fluids, thus, minimizing the chance of the HIV virus passing onto the baby. Different types of ART can be used safely during pregnancy. There are national and international guidelines to advise health care workers on the appropriate use of ART for prevention of vertical transmission. If there are safe alternatives to breast milk, like powdered milk, mothers are encouraged to avoid breast-feeding. However, this is not possible in many parts of the world, and in that case, exclusive breast-feeding is preferred. There are now studies to see if giving mothers or babies ART, after the baby is born, can help prevent HIV transmission through breast milk.



Swahili speakers recording in Stanford, California

Websites for HIV and AIDS Information

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AIDS Official Journal of the International AIDS Society (journals.lww.com/aidsonline/pages)
About.com: AIDS/HIV (www.aids.about.com)
AVERTing HIV and AIDS (www.avert.org)
The AIDS InfoNet (www.aidsinfonet.org)
AIDSMAP (www.aidsmap.com)
AEGiS (www.aegis.com)
Centers for Disease Control and Prevention (www.cdc.gov/hiv)
International HIV/AIDS Alliance (www.aidsalliance.org)
TeachAIDS (www.teachaids.org)
TheBody.com (www.thebody.com)
UNAIDS (www.unaids.org)
UNICEF (www.unicef.org)
United States National Library of Medicine (sis.nlm.nih.gov/hiv.html)
World Health Organization (www.who.int/topics/hiv_aids)

Websites for HIV/AIDS Quizzes

iVillage HIV/AIDS Quiz (quiz.ivillage.com/health/tests/whaids.htm)
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UNICEF HIV and AIDS Quiz (www.unicef.org/voy/explore/aids/713_hiv_quiz.php)

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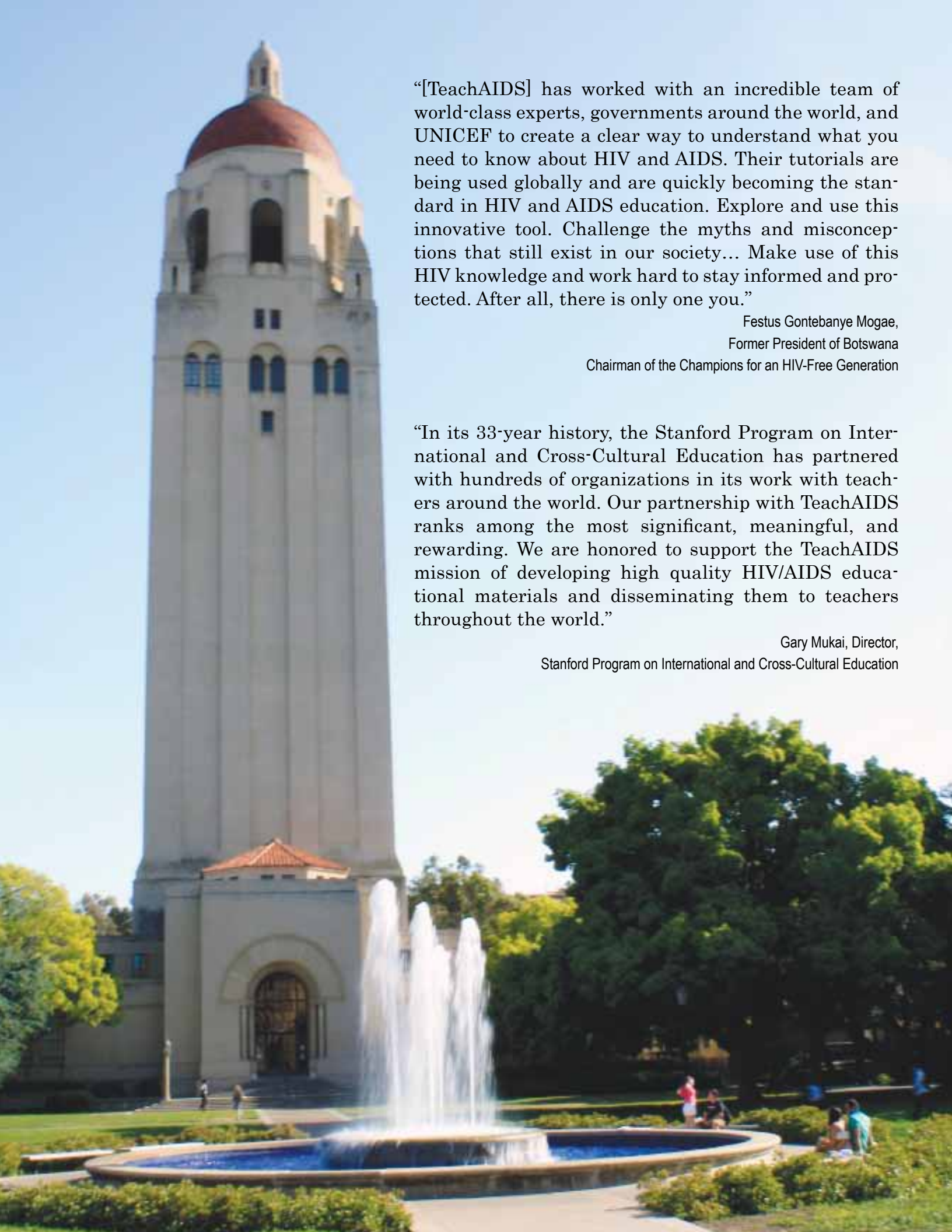
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“[TeachAIDS] has worked with an incredible team of world-class experts, governments around the world, and UNICEF to create a clear way to understand what you need to know about HIV and AIDS. Their tutorials are being used globally and are quickly becoming the standard in HIV and AIDS education. Explore and use this innovative tool. Challenge the myths and misconceptions that still exist in our society... Make use of this HIV knowledge and work hard to stay informed and protected. After all, there is only one you.”

Festus Gontebanye Mogae,
Former President of Botswana
Chairman of the Champions for an HIV-Free Generation

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Gary Mukai, Director,
Stanford Program on International and Cross-Cultural Education