THE HENRY J. KAISER FAMILY FOUNDATION

Reporting Manual on HIV/AIDS

HIV/AIDS Reporting

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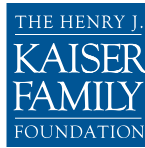
This manual was created by the **Henry J. Kaiser Family Foundation** and **Fundación Huésped** to serve as a reference guide for journalists covering HIV/AIDS. The Kaiser Family Foundation thanks Fundación Huésped for contributing the special section on HIV/AIDS in Latin America, which can be found at the back of this manual. Fundación Huésped is a non-governmental organization based in Buenos Aires, Argentina, working in the fight against AIDS.



Dear Journalist,

We are pleased to present you with this reporting manual on HIV/AIDS, which we hope will be of value during your time at the XVII International AIDS Conference in Mexico City. The manual has been designed for journalists who are covering the global epidemic for the first time and for those who have covered it previously. The Kaiser Family Foundation undertook this project as part of its continuing commitment to supporting good journalism and to combating HIV/AIDS through public education and awareness.

The material in this edition covers a broad range of subjects including special material about AIDS in Latin America, the unique challenges of reporting on HIV/AIDS, treatment and prevention strategies, key figures in the struggle against HIV/AIDS and global efforts to finance the campaign against HIV/AIDS. The epidemic is not only a battle against a virus. It can also be a battle about ideas, cultural taboos, stigma and discrimination. For that reason, we have included information about the political and social aspects of the epidemic and provide journalists with guidance about navigating these issues effectively. Additionally, there is information about malaria and tuberculosis.

Much of this material has been written by experts on HIV/AIDS and communications on the staff of the Kaiser Family Foundation. Some elements have been provided by outside organizations and we are grateful to them. KFF, along with the assistance of local reporters, also has produced several country-specific and region-specific manuals. Manuals are currently available in French, Spanish, Portuguese, Hindi, Marathi, Tamil, Russian and Ukrainian. These can be found at www.globalhealthreporting.org/reportingmanuals.

The general reporting manual, which is frequently updated online, should be viewed as a reference guide. More in-depth sources of information on HIV/AIDS can be found at www.kff.org/hivaids, www.globalhealthreporting.org and www.globalhealthfacts.org. A link to animated material designed for television can be found at www.kff.org/mediafellows/toolshivreporting.cfm.

Kaiser has always believed that journalists have a significant role to play in informing the public and public policy officials. We hope this reporting guide will contribute to that process.

Sincerely,

Drew Altman
President and CEO
Kaiser Family Foundation

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HIV/AIDS REPORTING BASICS:
Who, What, When, Where, Why and How

This essay was written by Renata Simone, who began reporting on HIV/AIDS in 1985. Most recently she served as producer, reporter and writer on the award-winning documentary "The Age of AIDS."

"The Age of AIDS" was produced in 2006 by Frontline for the Public Broadcasting Service in the United States. We are grateful to Frontline for allowing us to publish this essay, which was written as part of a reporting guide for public television reporters in the U.S.; more information can be found at www.pbs.org/wgbh/pages/frontline/aids/.

AIDS IS DIFFERENT FROM OTHER STORIES

Think of the major interdisciplinary, complex stories of our time; stories that are worldwide, ongoing and urgent. Perhaps you think of climate change, famine or nuclear proliferation. None of these is like the HIV/AIDS pandemic.

AIDS is a story of great breadth and sharp contrasts; covering it requires knowledge and sensitivity around personal issues such as sexuality, addiction and social vulnerability. At the same time, it is a global story requiring a broad understanding of international politics, economics and diverse cultural traditions. Interwoven with these strands of the AIDS story are the scientific, medical and healthcare stories, which you as a reporter must be able to "translate" for the general public. That's what makes it complicated.

Our reporting is crucial. Ever since the first cases of a mysterious, new disease were noticed by doctors in 1981, public awareness and education has been a crucial part of the battle against the spread of HIV and its effects. As journalists, we have an opportunity—and a responsibility—to provide the public with clear, accurate, respectful reporting on the pandemic and the larger social forces that drive it forward. In the absence of a cure or preventive vaccine, information is still one of the best weapons available. With the numbers of people infected rising each day, the need today for thorough, ethical reporting is more urgent than ever.

Of course HIV/AIDS is similar to many stories but none brings so many disparate parts together. As reporters, we find ourselves challenged by the subject and inspired by the people we meet along the way. If inspiration wins, our coverage will be there for the long-term, to help our readers, listeners and viewers fight the spread of the virus.

- **Avoid Stigma and Respect Confidentiality**

  Unfortunately, in many communities the response to HIV is stigma and discrimination. And for too many, the cost of that stigma is literally life-threatening.

  In such situations, people who are HIV-positive are unlikely to speak to you unless you assure them of confidentiality. It would be best to discuss what confidentiality means with your interview subject, as you may have very different ideas about what it is.

  You may have to explain the difference between "on background and not for attribution", "deep background" and "for guidance" on the other.

  In extreme situations, he or she may expect you to keep confidential the fact that you spoke with them at all ("off the record"). Talk with your interviewee. Again, the consequences of a breach of confidentiality could be personally disastrous for your interviewee and may jeopardize your future access to that person and those around him or her.

  If you plan to take photographs, film, video or plan to use your interviewees' likenesses in any way, you must secure their permission. Make sure he or she understands where and how your work is distributed. Think of it as your responsibility to secure informed consent from your interview subjects.

Remember, many individuals at risk of HIV are women and children living in poverty; they are among the world's most vulnerable populations. It is essential that all AIDS journalism is sensitive to the circumstances of people's lives and to the impact of our reporting on our subjects.

- **Achieving Fairness and "Balance" When Myths Are Rampant**

  In the early years of the epidemic, myths were widely circulated and in some cases, the media helped spread misinformation. Because some of these early myths persist, our reporting must continuously reinforce the basic facts. For example, HIV cannot be spread by mosquitoes, through donating blood or casual social contact.

  One of the most damaging and persistent myths is, "HIV does not cause AIDS". This is incorrect; HIV does cause AIDS. Despite overwhelming scientific evidence, a few "denialist" scientists question this fact, claiming a legitimate controversy exists. But this is an example of a myth masquerading as a discussion and unless handled with careful skepticism, can be very misleading.

  Some journalists and editors feel obligated to cover both sides of a controversy. However, our job as journalists is to be fair and accurate. Our job is not to give equal time to all who have opinions, but to weigh the evidence based on the facts and to report the truth in our best judgment.

- **Use Language Responsibly**

  In general it is essential to exercise caution with your words. We know that scientific language is difficult to follow and can be easily misunderstood. We are prepared to insure the accuracy and clarity of our statements.

  But in AIDS reporting there is an additional burden on our language. We must avoid stereotypes. Regardless of how someone encountered the virus, he or she is an individual. The words we use to characterize social and personal information can have strongly negative connotations.

  Many HIV/AIDS education and service groups have created reference lists of words and phrases for reporters. We urge you to consult them before you begin. The experts, activists and positive people you approach will discern the depth of your understanding not from your questions but from the language you use to express them.

REPORTING ON HIV/AIDS USING THE SIX BASIC QUESTIONS OF JOURNALISM

Since the subject of AIDS is so complex, one way to start is to go back to basics; to look at HIV/AIDS through the lens of the first questions we are taught to ask as reporters, "Who? What? When? Where? Why? and How?"

THE FIRST QUESTION: Who?
Who Should I Think About When I Start an AIDS Story?

The short answer is "everyone." The virus does not discriminate. Since HIV/AIDS affects people from all socioeconomic groups and countries, "Who?" can be anyone. Increasingly, the most vulnerable people are young women. The best source of current global epidemiological data is the UNAIDS website (www.unaids.org).

As you begin reporting, you might want to contact grassroots organizations, and the health care workers they recommend. Many of these groups are listed on the Age of AIDS website (www.pbs.org/wgbh/pages/frontline/aids) and in this reporting manual.

Then as you move forward with your reporting, you'll need to speak directly with people involved in the epidemic. Some of those interviewees will be HIV-positive. Here are a few of the most important ideas to consider as you move forward:

- **Your Relationship to Your Interviewees**

  Aside from the importance of confidentiality and sensitivity as mentioned earlier, your relationship with your interviewee will be shaped by several other factors.

  In order to establish and maintain a good reporting relationship the first rule is to do your homework. Your goal is to establish trust between you and your interviewees. In covering AIDS, you will interview people in many roles; from people with AIDS and the loved ones around them, to political leaders and community activists, caregivers and medical researchers. No matter whom you interview, you will have to earn his or her trust by showing your seriousness, professionalism, and respect.

- **Your Editor: The Story Pitch – "Why Should I Care?"**

  When there is breaking news, your pitch to your editor is clear. But if not, the question you'll have to answer is "Why should I care?" There could be as many answers to that question as stories about AIDS, but for discussion, we can identify three reasons to urge your editor to support your coverage of AIDS:

  A commonly heard response from editors is, "This isn't a problem for my readers/audience." But that is not true.

  First, HIV/AIDS is a problem, visible or not, in your community. Your media outlet has a chance to be part of the solution. AIDS is a preventable pandemic and information is key to prevention.

  Second, HIV/AIDS is costing your community scarce financial resources for treatment and care, while education and prevention are far less expensive.

  Third, you might remind your editor that AIDS affects young people more dramatically than other groups, which is the very audience most media organizations want to capture.

  Another reason to cover HIV/AIDS is pure human interest. This seemingly sad subject takes us to inspirational stories of friends and families triumphing over the worst times of their lives, of heroes, of ordinary people doing extraordinary things.

  When preparing to talk with your editor you may find it useful to think of story angles beyond the health beat. For example; this is a story about religion and the role of churches; it includes topics of immigration and the workplace; basic needs such as water and food; pharmaceutical industry prices and patents; sporting events and sport celebrities; tourism; entertainment and the arts including street theater. Think laterally across disciplines and find the "pitch" that will interest him or her.

THE SECOND QUESTION: What?
What Are the Stories?

Most people think first of HIV/AIDS as a health story, but there are myriad AIDS stories embedded in specific reporting beats outside health and medicine. HIV/AIDS is a story that can be told from the perspective of business, international news and analysis, politics, law, the arts, and culture.

Here's one way to think of the range of stories about HIV/AIDS.

- **Reporting on the Three Main Strands of the AIDS Story: Science, Society, People**

  The broad tapestry of the global AIDS story is woven from many separate threads. But we can conceptualize three main strands to help organize our thoughts, our research and our reporting.

The first strand is Science. This includes medicine, research and health care. The second strand, Society, encompasses economics, cultural norms and traditions, law, politics and government and other institutions of education and social welfare.

The third strand, People, is perhaps the most important. The experiences and insights of individuals help ground your reporting and make the issues and information relevant to your readers or viewers. Part of our task is to locate the human story within the abstract ideas and crises of HIV/AIDS. One of our challenges is to imagine specific stories about people that serve to illuminate issues around economics, science, geopolitics, law.

Integrating the Layers of the Story

In the real world, science, society and the experiences of people influence each other. For example, the debate over manufacturing generic drugs for HIV involves medicine, science, economics, politics and people. Each influences the other in ways that we can describe in our reporting. The interconnections make the story interesting and sometimes surprising.

The Local and Global Stories Complement Each Other

In covering HIV/AIDS you will notice how the local and global stories reflect each other. When you're working on a local story, you can enrich your reporting with information about the same issue on the national or international level.

The reverse is true too. When you're covering a global issue, such as the high cost of treatment for HIV/AIDS, a local story can provide just the right illustration. Reporting on someone local who is struggling to pay for drugs, can lead your readers or viewers to a deeper understanding of the issue at the global level.

Other examples of local/global stories are: the role of local medical researchers and/or doctors, who set examples for care that serve as models around the world; the link between academic or medical institutions here and abroad; and the role of local churches in supporting programs, people and villages overseas.

THE THIRD QUESTION: When?
When Should We Report on HIV/AIDS?

Pegging the Story to Recurring Events

You might consider proposing and writing or producing pieces around the milestone years in the epidemic, or the yearly events around HIV/AIDS. A few of those annual events include World AIDS Day – December 1st, and in the U.S., National HIV Testing Day – June 27th, National Black HIV Awareness Day – February 7th. Aside from these national and international days of observance, there may be local milestones or events that you might use as pegs for your reporting.

Timely News and Information

Every ongoing story has occasional news hooks, which provide clear rationales for your reporting. Stay apprised of upcoming developments by staying in touch with your sources and monitoring primary research documents. Your primary research should include the major peer-reviewed scientific journals and online proceedings from medical and social science meetings.

Ongoing Reporting: AIDS is Not Over

Between the moments of news, there are long stretches when HIV and AIDS disappear from the public spotlight. But of course the epidemic continues. Complacency is very dangerous as it can lead to a false sense of security among people at risk, who may then place themselves at even greater risk.

At times when there is no news, you might suggest a straightforward prevention piece – What are the HIV/AIDS prevention programs in your area that have proven most effective? In the U.S.? In the world?

Or you might propose an investigative piece – How many people with AIDS are on waiting lists for treatment? Where are the funds earmarked for HIV/AIDS being spent and is the spending cost-effective?

Other story angles you might consider are: talking with your parents or with your children about HIV; living with HIV/AIDS and the drug regimen; taking an HIV test—what is involved, what are the costs; pre-and post counseling programs in HIV testing sites, what advice and support should be provided.

THE FOURTH QUESTION: Where?
Where Are the Stories?

The short answer, you can guess, is "Everywhere." According to genetic studies published in the Spring of 2006, HIV emerged in southeast Cameroon between 1920 and 1935. Since then, as transportation and globalization served as "vectors" for the virus, HIV and its subtypes have been carried to every continent on earth.

Often, people are unaware of how HIV is spreading. Migration of people from place to place for work continues to play a central role in the pandemic. You might consider an investigative piece following major transport roads and routes.

As discussed earlier, finding stories may be made more difficult by the heightened issues of confidentiality and trust. But if your approach is informed and respectful, contacting your local AIDS service providers and activist groups should provide a good start.

Wherever you search for stories, on the local or global level, don't forget to keep your curiosity alive and stay curious and open to surprises. Not only will your work be more alive, but someone seeking to prove a preconceived idea or story is not a journalist but an essayist or polemicist.

THE FIFTH QUESTION: Why?
Why Report on HIV/AIDS?

- **Preventable Suffering**

  Unfortunately, we all know or have experienced times of unpreventable suffering. But HIV and AIDS are preventable. By helping increase awareness of HIV, how it is transmitted and how to avoid it, your reporting will be part of the solution. Your work will help prevent some of the needless suffering of people at risk of HIV, their families and loved ones, and their communities.

- **The Information Imperative**

  AIDS awareness is not a one-time goal. This is true for every demographic target audience, particularly for young people. Every day, new teens and young adults are coming of age and may find themselves unknowingly at risk for HIV. So the need for reporting on basic information is constant and ongoing.

- **The High Cost of HIV/AIDS**

  Medical care and treatment of people with HIV disease is highly costly in terms of finances and human resources. Who pays for AIDS in your city or community? Are the expenditures cost-effective?

  And HIV disease strikes young people in the prime of their working lives. Part of the cost of AIDS is the loss of the professional contributions of so many to the societies in which they lived.

THE SIXTH QUESTION: How?
How Can the Lessons Learned During the History of HIV/AIDS Inform Our Reporting?

Since 1981 when the first cases were diagnosed, experts have fought many battles on all fronts and learned three broad lessons. As journalists, we can use these lessons to locate stories, and then to make our reporting better.

Positive Leadership is Crucial

How we shape our coverage can be informed by the lessons of the past. We can see clearly in the history of AIDS, in country after country around the world, that the key to the course of the epidemic is the actions, or inaction of leaders.

For example in the United States in the early 1980's and South Africa in the early 1990's, the nations' top leaders did not take aggressive action against the epidemic, and the virus spread at alarming rates. In contrast, leaders in Thailand and Uganda took aggressive action early in their countries' epidemics and were able to lower transmission rates significantly. And the recent rise in cases in Thailand and Uganda further illustrates the importance of positive leadership.

Focusing on leadership is a powerful tool in illuminating the story. Leaders in Brazil, for example, set global precedents in the fight for cheaper drugs and in the assertive prevention programs the country has in place. How and why were they able to achieve these goals is a riveting narrative about leaders who listened to their constituents and acted decisively.

Bear in mind non-governmental leaders also have a role to play. Throughout the decades of the battle against AIDS, many of the true leaders have been ordinary people who found themselves in terrible circumstances but summoned the strength to survive and the courage to lead.

Denial, Stigma and Discrimination Are the Virus' Best Friends

The long history of HIV/AIDS has shown that all around the world, when the social environment around HIV is filled with denial and silence, stigma, discrimination and fear, people at risk of HIV are not likely to get tested. If someone knows he or she is HIV-positive, they are likely to keep it hidden. This creates a tremendous risk to others.

If your reporting provides your audience with accurate, clear and thorough information about the virus and its transmission, it will help allay the fears that lead to stigma and discrimination and have a true positive impact.

Prevention Works

The transmission of HIV can be prevented by not having sex, not using contaminated syringes and not getting transfusions of tainted blood or blood products. Experts have pointed out these absolute measures work for some, but not all people at risk.

Failing total abstinence, definitive scientific studies have shown that the risk of transmission can be greatly lessened by other preventive measures such as using condoms, clean syringes and screened blood products. Other successful prevention strategies include reducing other STDs, TB and malaria. Recently, studies have demonstrated the effectiveness of male circumcision in reducing transmission.

These measures of prevention and "harm reduction" continue to be politically charged and need to be reported clearly and factually. Since medical science has not yet created a cure or a vaccine for HIV disease, the best weapon is prevention.

LAST BUT NOT LEAST – THE QUESTION PEOPLE ASK REPORTERS: Isn't Covering AIDS Depressing?

In many ways, AIDS is a sad story. Many lives have been lost and more are still at risk. There are unjust inequities and impossible choices.

But ultimately, AIDS is an inspirational story. Throughout the epidemic, there have been heroes whose actions made a difference in the lives around them. As journalists, we have the privilege and responsibility of meeting and giving voice to these people.

AIDS is not the kind of story you can "parachute" into. As one of the most complex problems humanity has ever faced, it is worth specializing to ensure you gain a deep and thorough understanding of the subject. AIDS crosses disciplines—from molecular virology, epidemiology and economics, to politics, sociology and psychology. The pandemic also crosses all geographic and socioeconomic boundaries, affecting rich and poor in developing and developed countries alike. So covering it takes time and understanding.

Another reason to specialize in AIDS reporting is the professional and personal rewards.

Our reporting does have a positive impact. Reporting on AIDS informs and inspires our readers, listeners and viewers to make positive choices in their own lives and to contribute to the ongoing battle against AIDS.

But perhaps most importantly, the people we meet along the way—from health care workers and political leaders to outreach workers, people with HIV and their loved ones—provide us and our audiences with long lasting inspiration and a deep sense of hope.

The opinions expressed here are those of the author's alone.

ADDITIONAL RESOURCES

Kaiser Family Foundation. *Global Health Facts* website, www.globalhealthfacts.org

UNAIDS. *Terminology Guidelines*, http://data.unaids.org/pub/Manual/2007/20070328_unaids_terminology_guide_en.pdf

Pan American Health Organization. *HIV-related Language: PAHO 2006 Update*, http://www.ops-oms.org/English/AD/FCH/AI/HIVLANGUAGE.PDF

ETHICS GUIDELINES

This material was developed for and endorsed by the Southern Africa Editors' Forum; more information can be found at www.journaids.org/docs/SAEF_ethical_principles.pdf. We are grateful for permission to reprint this material.

HIV and AIDS is a story of critical importance that should be covered by journalists with imagination, initiative and sensitivity to gender and the larger social forces driving the epidemic.

The story requires reporting of the highest ethical standards. The Southern African Editors' Forum (SAEF) and the Media Institute of Southern Africa (MISA) endorsed these principles to provide guidance to media councils, training institutions and media companies, as well as individual editors and journalists. The principles are not cast in stone but should be revised over time and in response to the unfolding epidemic.

- Accuracy is critical, since important personal and policy decisions may be influenced by media reports. Journalists should be particularly careful to get scientific and statistical information right. Facts should be painstakingly checked, using credible sources to interpret information, verify facts and make statistics and science accessible and relevant to wide audiences. Sources should be named as often as possible. Stories should be written in context.
- Misconceptions should be debunked, and any claims of cures or treatments should be reported with due care. Journalists should look at all stories critically.
- Clarity means being prepared to discuss sex, cultural practices and other sensitive issues respectfully but openly. Care should be taken to ensure language, cultural norms and traditional practices relating to, for example, inheritance and sex are understood and accurately reported taking into account universal human rights.
- Balance means giving due weight to the story, and covering all aspects, including medical, social, political, economic and other issues. Balance also means highlighting positive stories where appropriate, without underplaying the fact that HIV and AIDS is a serious crisis.
- Journalists should hold all decision-makers to account in their handling of the pandemic, from government to the pharmaceutical industry and advocacy groups. They should be engaged with, but not captive to, any interest group.
- Journalists should ensure that the voices and images of people living with and affected by HIV and AIDS are heard and seen. The human face of the pandemic should be shown. They should take care that the voices heard are diverse, and include those of women and men, vulnerable and marginalized people.
- Journalists should respect the rights of people with HIV and AIDS. Vulnerable people should be treated with particular care. Journalists should seek informed consent before intruding on anyone's privacy. They should seek to understand the possible consequences for individuals who participate in their report, and to ensure those individuals are clear about the consequences. Only in cases of overwhelming public interest can somebody's HIV status be reported against their wishes or should journalists hide their professional identity.
- Journalists should be aware of and seek out the gender dimensions of all aspects of the pandemic, from prevention to treatment and care, as this will add to the depth and context, as well as reveal new areas for reporting.

- Particular care should be taken in dealing with children. They experience the most extreme consequences of the epidemic, and their rights to privacy should be afforded even greater protection. They should only be identified if the public interest is overwhelming, and then only if no harm to them is foreseeable and they and any parents or guardians have given informed consent. Children have the right to participate in decisions affecting their lives. They also have the right to be heard, and journalists should ensure that the particular concerns they face are covered.
- Discrimination, prejudice and stigma are very harmful, and journalists should avoid fuelling them. Particular care should be taken not to use language, or images, that reinforce stereotypes.

ADDITIONAL RESOURCES

The Kaiser Family Foundation's *Global Health Reporting* website (www.globalhealthreporting.org/reportingmanuals) provides links to many reporting manuals which include ethics guidelines.

FREQUENTLY ASKED QUESTIONS ABOUT COVERING HIV/AIDS

Is there really a difference between reporting that someone has AIDS or is HIV-positive?

Yes, there can be a difference. HIV-positive means someone is infected with HIV, the virus that causes AIDS, but it does not necessarily mean they have progressed to an AIDS diagnosis. It is possible an HIV-positive person will not be showing any symptoms. Someone who has an AIDS diagnosis has a severely weakened immune system and typically does show symptoms. Depending on your story, it may be important to be clear about this distinction.

Who do I turn to for the most reliable numbers related to the epidemic?

There is a great deal of confusion, and sometimes controversy, about HIV/AIDS statistics. It can be difficult to find and interpret statistics, since there are so many challenges to conducting disease surveillance. One reason for that is most people with HIV do not know they are infected. Before using any statistics, be absolutely certain you understand what they mean, who collected them, how they were collected and over what period of time. If you find numbers that contradict each other, go back to your sources and ask them to explain the contradiction. UNAIDS is the best place to start for obtaining global and country-level HIV/AIDS data. You may also want to check directly with your country's health agency. There is more information on this in *Understanding and Reporting on HIV/AIDS Data*, and an explanation about how UNAIDS develops HIV/AIDS estimates at www.kff.org/hivaids/7742.cfm.

How important is confidentiality in reporting on HIV/AIDS?

The identity of a person with HIV/AIDS should not be disclosed without the explicit permission of that person. In many countries a person publicly identified as being HIV-positive or as having AIDS will be shunned and stigmatized and may even face violence—in the home, the community and at work. If a person agrees to be identified, it is a reporter's responsibility to make sure he or she understands the potential consequences of that decision. There is more information on this in *HIV/AIDS Reporting Basics* and *Ethics Guidelines*.

What are the common stereotypes that slip into HIV/AIDS reporting?

People with HIV/AIDS are a diverse population and your reporting should reflect that. The goal, of course, is to be objective and factual. Stay away from making value judgments and from reinforcing the stigma that many people with HIV already face. A common stereotype involves what types of people become infected including the common confusion between "risk group" and "risk behavior"—that is, assuming someone who is in a certain group engages in risky behavior. For example, many men who have sex with men practice safer sex and have a single partner. So, they are not at a significantly greater risk than the general population.

What words do I want to be cautious about using in the context of HIV/AIDS?

It is important to not use words that incorrectly stereotype or stigmatize people with HIV, perpetuate myths about the disease or carry value judgments. Two useful guides on suggested language are:
http://data.unaids.org/pub/MediaAdvisory/2007/20070328_unaids_terminology_guide_en.pdf and
http://www.ops-oms.org/English/AD/FCH/AI/HIVLANGUAGE.PDF

Do not use terminology that general audiences cannot easily understand. This is especially important when reporting on medical stories. The goal is to be precise without being so dense your audience will not understand what you are reporting.

What are the pitfalls when reporting on treatments for HIV/AIDS?

HIV/AIDS treatment is a complex area and there are many different treatments available for HIV/AIDS—some treat the virus itself, others treat the symptoms and illnesses caused by the virus. However, none is a cure for HIV or AIDS. It is important to be clear about the distinction between a treatment that may cure or prevent an illness *related* to HIV infection with a cure for HIV (or AIDS) *itself*. It also is important not to describe drugs used to slow the growth of the virus as cures. Again, there is no cure for HIV.

Is it accurate to say that someone died of AIDS?

AIDS is a syndrome that can be defined by any number of diseases and cancers. There is no singular disease that is called AIDS. When someone who had been diagnosed with AIDS does die, it is technically more accurate to report that he or she died of an AIDS-related illness, of HIV-related causes or due to HIV disease.

UNDERSTANDING AND REPORTING ON HIV/AIDS DATA

Reporting on HIV/AIDS is complex and sorting through the epidemiological data can be challenging. Whether using data to support a story or reporting on the data itself, the specific data chosen and how they are used, will play a large role in determining what story you tell. In addition, the data are often so complex that there is a risk of misinterpretation. For example, some reporters may use "incidence" and "prevalence" interchangeably even though they represent two different ways of measuring the epidemic. It is also important to be aware that enhancements in methodology, greater availability of data, and increasing knowledge of HIV disease have led to improved and updated estimates over time and while these provide a clearer picture of the epidemic, they often mean that current estimates may not be comparable to estimates published in prior years. Therefore, it is important to be familiar with the types and sources of HIV/AIDS data available, how they are used to characterize the epidemic, how they change over time, and their limitations in order to avoid hitting pitfalls when reporting. Included below is a brief discussion of some of these issues and suggested resources.

Where Do HIV/AIDS Data Come From?

HIV/AIDS data come from a variety of sources, including:

- Population-based household surveys
- Surveys of pregnant women attending antenatal clinics (ANCs)
- Other "sentinel" surveillance of populations at higher risk such as sex workers or injection drug users. Sentinel surveillance is the collection and analysis of disease data from designated institutions, providers, or facilities, such as STD or ANC clinics. Such data, however, may not be representative of the general population
- Official case reports (e.g., from health departments tracking disease)
- Vital registration systems (the official recording of births and deaths)

None of these sources, however, provides a total or exact number of people living with HIV/AIDS, people newly infected, and deaths due to AIDS. This is the case for several reasons: the data cannot be obtained from direct counts since most people do not know their status, stigma surrounding HIV disease often leads to denial and underreporting, and the current reach of HIV testing services throughout the world is still relatively low. Thus, for example, the number of AIDS cases officially registered by a country will always be less than the actual size of the HIV-infected population. Despite these challenges, methods have been developed and refined over time to produce reasonable estimates at the country, regional, and global levels. These efforts are led by UNAIDS, which has a technical advisory group to help develop estimates and regularly consults with countries.

The source of HIV/AIDS data used to develop estimates depends on the level or type of HIV/AIDS epidemic within a country:

- In countries with **generalized epidemics** (countries where HIV prevalence among the general adult population is at least 1%), estimates are primarily based on blood samples from pregnant women in antenatal clinics. Surveillance of pregnant women in antenatal clinics often provide the best available data upon which to base estimates of HIV prevalence in the general population, in countries with generalized epidemics, although adjustments have to be made for doing so. Where available, population-based surveys are also used to enhance these estimates, but conducting population-based surveys is generally not feasible, at least not on a regular basis.
- In countries with **concentrated epidemics** (prevalence in the general population is less than 1% but some groups at high risk have prevalence greater than 5%), estimates are based on studies of populations at higher risk of exposure—injection drug users, sex workers and men who have sex with men.

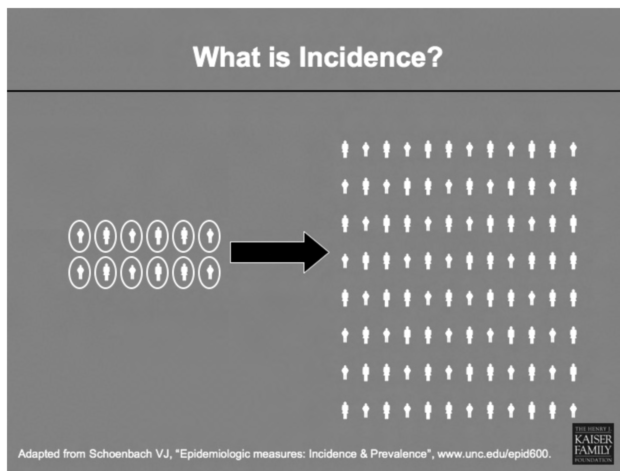
What are Key Data Issues to Consider?

Among the many issues to think about as you get ready to report on HIV/AIDS using data are the following:

- There are many sources and types of data, each telling a different story about the epidemic
- HIV/AIDS surveillance methods evolve over time, so data from the same source may not be directly comparable year to year
- The type of data available, and the lag-time in availability, may pose challenges to assessing recent impact
- There are gaps in the data
- Epidemiological measures of HIV/AIDS are numerous and each has important and distinct definitions
- Much of the data you may use are estimates only. For example, HIV incidence (new infections) is an estimate. This is true globally and in all countries, even the United States, due to the lag-time between HIV infection and the development of AIDS, the fact that many do not know their status, stigma which leads to underreporting, and surveillance systems that may not be complete
- Pay attention to ranges given around any estimate, as well as any notes that may accompany data, since these may provide important information that can help in your interpretation
- Rates/percents, not just numbers, are important—rates are standardized measures, allowing for comparison of impact or concentration of HIV/AIDS across different population groups, time periods and areas
- The story is often local and complex, so global, regional, and country averages may mask localized epidemics and trends including the impact on marginalized populations

Remember to:

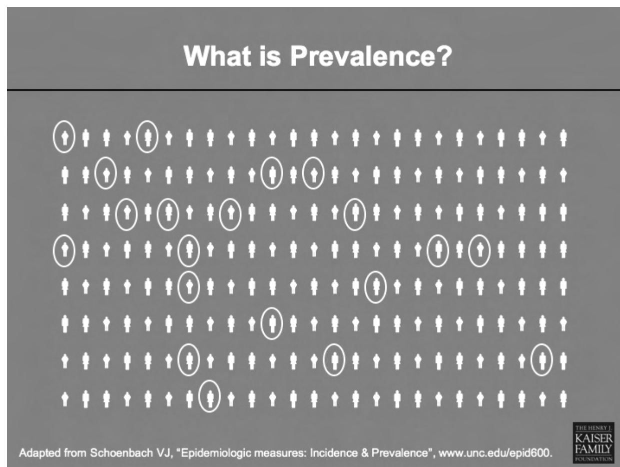
- Consult multiple types of data, compare and contrast
- Consult UNAIDS and www.globalhealthfacts.org for the latest global and country-level data
- Consult regional organizations and/or country ministries of health for surveillance reports as they may have country-specific or local data
- Indicate which type of data is being used (e.g., prevalence, incidence, rates, HIV infections or AIDS cases)
- Be clear about whether data are estimates, actual reports, representative or just a small sample from an individual study



INCIDENCE: The number of new events (e.g., of a disease or condition) occurring in a given population during a particular point in time. In this example, there are 12 people newly infected with HIV who are moving into the population. The incidence of new events, or new infections = 12.

What does it tell us: The most recent occurrence of a disease or condition; how many are newly infected with HIV.

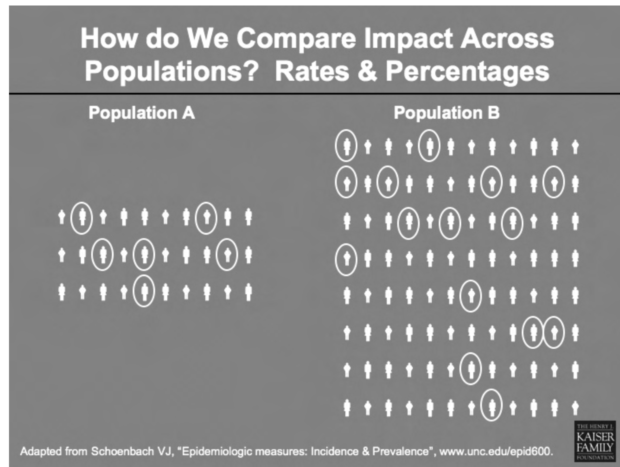
Qualification: For a disease like HIV, it is very difficult to know this number since many people do not know their HIV status and standard HIV tests used to diagnose HIV infection cannot detect when someone became infected. Therefore, HIV incidence is usually estimated. You may sometimes see "new HIV diagnosis". This is not necessarily the same thing as a new infection since people may be diagnosed with HIV at different times after they are infected, including several years after.



PREVALENCE: The number of events (e.g., of a disease or condition) in a given population at a particular point in time. In this example, there are 200 people and 20 of them have HIV. The prevalence = 20. Prevalence may also be expressed as a rate (or percent), which is the number of events (e.g., of a disease or condition) in a given population at a particular point in time divided by the population. In this example, the prevalence rate = 20/200 = 10%.

What does it tell us: The current burden of a disease in a population. It is a snapshot at a particular point in time. The prevalence rate is useful for comparing across populations or over time.

Qualification: It is important to remember that this does not tell us when someone became infected with the disease, just how many, or what share of a population has the disease at the specified time.



RATES: In this example, there are two populations, A & B. Population A has 30 people and 6 are infected. Population B has 96 people and 15 are infected. In which population is the disease more highly concentrated? Answer: A

Population A: 6/30 = 20%
Population B: 15/96 = 15.6%

What does it tell us: A rate allows for comparison across populations or over time by standardizing for differences in population size. For example, in the case of Black Americans who make up only about 12% of the U.S. population, a rate can help us understand if HIV is more highly concentrated in this community compared to other groups.

Qualification: Whether or not you use a rate will somewhat depend on the question you are asking. If you want to know where the greatest number of people infected is located, a rate would probably not be the measure you are looking for. If, however, you want to compare across different countries or communities, or over time, a rate is very informative.

REFERENCES AND RESOURCES

UNAIDS. *HIV Data Page: Methods and assumptions for estimates* (2007), http://www.unaids.org/en/HIV_data/ Methodology/default.asp

UNAIDS. *Understanding the latest estimates of the 2007 AIDS Epidemic Update*, November 2007, http://data.unaids.org/ pub/ EPISlides/2007/071118_qa_methodology_backgrounder_en.pdf

UNAIDS. *Global Summary of the AIDS Epidemic*, December 2007, http://data.unaids.org/pub/EPISlides/2007/071118_ epicore2007_ slides_en.pdf

Kaiser Family Foundation. *Understanding the New UNAIDS Estimates*, http://www.kff.org/hivaids/7742.cfm

Kaiser Family Foundation. *Global Health Facts* website, www.globalhealthfacts.org

HIV/AIDS INFORMATION ON THE INTERNET: How to Search and What to Look for

This information, on searching for and evaluating online information, was developed by SciDev.Net. The full multimedia training kit can be found at www.itrainonline.org/itrainonline/mmtk/mmtk_hivaids_resources_handout.doc. We are grateful for permission to reprint this material.

Searching for HIV/AIDS information will result in different types of information, resources and links depending on whether you are using a general search engine such as Google, or searching a specialized HIV/AIDS site or database aimed at health care professionals.

- General search engine results for a search on, for example, mother-to-child transmission of HIV will yield a wide range of types of resources—ranging from news reports, to community health guides, statistical information and information aimed at medical researchers. You may get good information, bad information, and information which is not relevant to your needs.
- A search on an organization's website may bring up information produced mainly by that organization.
- A search on a specialized portal will produce results relating to the portal's particular focus area.

Evaluating HIV/AIDS (or any health-related) information is critically important. The specific evaluation criteria you should apply will depend in some measure on the type of information and what you intend to use it for. Unless you are writing an article on fraudulent HIV/AIDS "cures," the quality of the information is the central evaluation criterion. Depending on the way in which you intend to use the information you might want to add additional criteria—for example, if you are looking for a good site to recommend to a grassroots organization you would also want to check that the site is easy to use and the resources targeted at an appropriate level. Key issues are:

- **Information quality**: the most important aspect of information quality is accuracy. Sometimes you will be able to assess the accuracy of the information on a website directly yourself. Very often, though, you won't have the specialized knowledge needed to do so. In this case, you will need to ask a number of questions to help you assess the *likely* accuracy of the information. These questions include:
    - What is the source of the information, and how reliable is it likely to be? Does the provider of the information perhaps have a vested interest in promoting a particular point of view? Look for:

        A "mission statement" or other information about the organization which maintains the site.

        Information about individual authors.

        Sponsorship of the site.
    - Has the information been through an editorial review process? For example, is it in a peer-reviewed journal?
    - How current is the information?
    - How comprehensive is the information?
    - Is the information based on clinical and scientific evidence?

        Be wary of content which goes against widely held scientific beliefs without proper discussion. This could be an indication that the information is not based on scientific research.

        When information relates to clinical trials, remember that randomized clinical trials are generally accepted as being the most reliable, followed by other study methods such as non-randomized trials and case/cohort studies.
    - Are adequate references provided, indicating the source of the information, including statistics?

Local, National and International Organizations

There is a vast range of websites produced by local, regional and international organizations around the world involved in HIV/AIDS research, treatment and care. These may be government or non-government-based organizations, who receive private and/or public funding. Websites vary in their content and resources, according to the time, money and expertise invested in production of the website and the intended users.

Information and resources on these sites generally fall into one of these categories:

- Community and media guides
- Reports
- Policy documents
- Background information (fact sheets and glossaries)
- Contact information for expert advice
- Directories
- Searchable databases
- Projects
- Funding for HIV/AIDS-related projects
- Links
- E-mail alerts

COMMONLY USED ACRONYMS

Acronym	Description
ABC	Abstinence, Be faithful, Condom use
ADAP	AIDS Drug Assistance Program(s) (U.S.)
ADC	AIDS Dementia Complex
AIDS	Acquired Immunodeficiency Syndrome
ART, ARV	Antiretroviral Therapy, Antiretroviral(s)
AZT	Zidovudine
U.S. CDC	Centers for Disease Control and Prevention (U.S.)
CNN	Condoms, Needles, Negotiation
DOTS	Directly Observed Treatment or Therapy Short-Course
ELISA	Enzyme-Linked Immunosorbent Assay
EMEA	European Medicines Agency (EU)
FDA	Food & Drug Administration (U.S.)
FDC	Fixed Dose Combination
FI	Fusion Inhibitor
GIPA	Greater Involvement of People Living with HIV/AIDS
Global Fund	The Global Fund to Fight AIDS, Tuberculosis and Malaria
GMAI	Global Media AIDS Initiative
GNP+	Global Network of People Living with HIV/AIDS
HAART	Highly Active Antiretroviral Therapy
HIV	Human Immunodeficiency Virus
HRBA	Human Rights-Based Approach (to HIV)
IAS	International AIDS Society
IAVI	International AIDS Vaccine Initiative
IDU	Injection Drug User
ISC	International Steering Committee for People with AIDS
LIFE Initiative	Leadership and Investment in Fighting An Epidemic Initiative (U.S.)
MAP	Multi-Country HIV/AIDS Program (World Bank)
MDR-TB	Multi Drug Resistant Tuberculosis
MSM	Men Who Have Sex With Men
MTCT	Mother-to-Child Transmission
NAPWA	National Association of People With AIDS (U.S.)
NEP	Needle Exchange Program

Acronym	Description
NIH	National Institutes of Health (U.S.)
NNRTI	Non-Nucleoside Reverse Transcriptase Inhibitor
NRTI	Nucleoside Reverse Transcriptase Inhibitor
OGAC	Office of the Global AIDS Coordinator (U.S.)
OI	Opportunistic Infection
PAHO	Pan American Health Organization
PEP	Post Exposure Prophylaxis
PEPFAR	President's Emergency Plan for AIDS Relief (U.S.)
PHI	Primary HIV Infection
PI	Protease Inhibitor
PLHIV	People Living with HIV
PLWHA	People Living With HIV/AIDS
PMTCT	Prevention of Mother-to-Child Transmission
PrEP	Pre-Exposure Prophylaxis
RBM	Roll Back Malaria
SEP	Syringe Exchange Program
STD / STI	Sexually Transmitted Disease, Sexually Transmitted Infection
TAC	Treatment Action Campaign (South Africa)
TB	Tuberculosis
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session on HIV/AIDS
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing
WFP	World Food Programme
WHO	World Health Organization
WTO	World Trade Organization
ZDV	See AZT

GLOSSARY

A

1. **ABC**

   The ABC approach to behavior change promotes the adoption of the following three behaviors as central to HIV prevention efforts:

   A – Abstaining from sexual activity or delaying the age of the first sexual experience

   B – Being faithful or practicing mutual monogamy with an uninfected partner

   C – Correct and consistent condom use

2. **Abstinence**

   Refraining from sexual activity. In the context of HIV/AIDS, this term also refers to delaying the age of first sexual experience or sexual debut.

3. **Accidental Exposure or Accidental Transmission**

   This usually refers to HIV exposure or transmission that occurs in the health care setting. Transmission can occur from patient to provider or vice-versa.

4. **Acute HIV Infection**

   The first stage of HIV infection, this is the period immediately following infection with HIV. The length of the acute stage can last anywhere from a few days to several weeks. HIV multiplies rapidly and can be transmitted to others during this time. Acute HIV infection is also known as primary HIV infection (PHI).

5. **ADAP – AIDS Drug Assistance Program(s)**

   AIDS Drug Assistance Programs are U.S. federally funded, state-administered programs. They provide HIV-related medications to people with HIV/AIDS with limited or no health insurance coverage. The programs vary widely across the country as eligibility for ADAP is determined on a state-by-state basis, as are the drugs that are covered.

6. **Affected Community**

   Persons living with HIV/AIDS, and other related individuals including their families and friends, whose lives are directly influenced by HIV infection and its physical, social and emotional effects.

7. **AIDS**

   Acquired Immunodeficiency Syndrome (AIDS) is the stage at which an individual's immune system is weakened by HIV to the point where they develop any number of diseases or cancers. People who haven't had one of these diseases or cancers, but whose immune system is shown by a laboratory test to be severely damaged, are also considered to have progressed to an AIDS diagnosis.

8. **AIDS-Defining Illness**

   These include a variety of conditions that occur at late stages of HIV disease and that signal progression to AIDS. According to UNAIDS, many individuals first become aware of their infection at this stage.

9. **AIDS Dementia Complex (ADC)**

AIDS Dementia Complex, also known as HIV Dementia, is a condition caused by HIV that affects the brain and causes a person to lose their mental ability. Symptoms include loss of coordination and interest in one's surroundings, mood swings, and mental dysfunction. Memory loss and limited mobility can also develop. ADC usually occurs after a person has developed serious opportunistic infections, but can also occur at an earlier stage. ADC can be prevented and treated with antiretroviral therapy.

10. **Antenatal**

Occurring before birth (as in HIV exposure or transmission from mother to infant during pregnancy).

11. **Antibodies**

Molecules in the body that identify and destroy foreign (unfamiliar) substances such as bacteria and viruses. Standard HIV tests identify whether or not antibodies to HIV (HIV antibodies) are present in the blood. A positive HIV test signals that antibodies are present.

12. **Antiretroviral Therapy (ART)**

ART refers to any of a range of treatments that include antiretroviral (ARV) medications. The drugs that are used in the treatment of HIV, a retrovirus, are designed to interfere with the virus' ability to replicate itself and, therefore, slow the progression of the disease.

13. **Asymptomatic**

A person with HIV is asymptomatic if they do not show signs and symptoms of the disease. This is also the second stage of HIV disease progression and can last for many years after infection. The virus can be transmitted during this stage.

C

14. **Care, Treatment and Support**

Care, treatment and support encompass the range of interventions necessary to take care of people living with HIV/AIDS, including ***antiretroviral therapy***, treatment and prevention of ***opportunistic infections***, nutritional support, psychological and community and home support. Care, treatment and support are increasingly seen as being inextricably linked to each other.

15. **CD4 (T4) Cell Count**

These cells control the body's immune response against infections and are the primary targets for HIV. HIV multiplies within these cells and eventually destroys them. As a result, the immune system becomes progressively weaker. CD4 cell count is used as one measure of HIV disease progression. The lower a person's CD4 cell count, the more advanced the HIV disease and deterioration of the immune system.

16. **U.S. Centers for Disease Control and Prevention (CDC)**

The United States Federal agency responsible for protecting individuals' health and safety. The CDC's activities emphasize disease prevention, control, health education and health promotion. The CDC also conducts international prevention activities for HIV, TB, malaria and other diseases.

C (continued)

17. Circumcision

The procedure, in which the foreskin of the penis is removed, has been shown in randomized controlled trials to reduce the risk of HIV transmission from women to men. In 2007, the World Health Organization and UNAIDS recommended that circumcision be considered "an important intervention" in reducing the risk of heterosexually acquired HIV infection in men. The health organizations view the procedure as one part of a comprehensive prevention program.

18. Clinical Trial

A scientific study designed to evaluate the safety, ***efficacy*** and medical effects of a treatment (e.g., *antiretroviral therapy, vaccine*). A treatment must proceed through several phases of clinical trials before it is approved for use in humans.

19. Combination (Antiretroviral) Therapy

The use of two or more antiretroviral drugs in combination. The use of three or more antiretroviral drugs is often referred to as *HAART* or *Highly Active Antiretroviral Therapy*.

20. Complementary & Alternative Therapies

Treatments that are outside the scope of Western medicine. The effectiveness of these therapies in combating HIV infection has not been proven.

21. Concurrent Sexual Partnerships

Having more than one sexual partner at a time. The practice raises the risk of contracting HIV and is increasingly recognized as a significant factor in the high prevalence rate of HIV in Africa.

22. Cross Resistance

The phenomenon where HIV resistance to one drug (see ***drug resistance***) prompts resistance to other drugs in the same drug class. An example of this is nevirapine resistance resulting in resistance to efavirenz.

D

23. DDT

DDT (dichlorodiphenyltrichloroethane) was the main insecticide used during the 1950s and 1960s in the *World Health Organization*'s (WHO) global campaign to eradicate the mosquitoes that carry malaria. DDT has a history of being a highly controversial insecticide. It has been banned from agricultural use in almost all countries. Currently, the WHO recommends use of DDT for malaria control through indoor spraying. Through WHO's efforts, malaria was successfully eradicated from North America and Europe.

24. Down Low

A term that has been used to refer to men who have sex with men but do not necessarily identify as gay or bisexual and may not disclose this information to others. They may also be having sexual relations with women.

25. Drug-Drug Interaction

A situation where a drug changes the way another drug works in the body, also known as a *synergistic* effect. This can result in increased or decreased effectiveness of either drug. Drug-drug interactions can also lead to unintended side effects.

26. Drug Resistance

The ability of HIV to reproduce despite the presence of anti-HIV drugs. Drug resistance results from ***mutations*** that arise during HIV replication.

27. Dry Sex

Refers to the practice of women using various agents to "dry out" the vagina before sexual intercourse. This practice is often based on cultural beliefs, but inadvertently can increase the risk of HIV transmission because condoms break more easily from the friction and a dry vaginal wall can lead to tears and lacerations during intercourse.

E

28. Efficacy

The measurement of a drug's or treatment's ability to heal, regardless of dose. For example, the efficacy of an ***antiretroviral*** drug is the most benefit that the drug can cause without considering how much of the drug is taken.

29. Endemic

The constant presence of a disease or infectious agent within a given geographic area or population group; can also refer to the usual prevalence of a given disease within such area or group.

30. End-stage Disease

The four stages of HIV disease are acute infection, asymptomatic, chronic symptomatic and AIDS. Although AIDS is the end-stage of HIV disease, it is possible to live for years after an AIDS diagnosis given appropriate drug therapy.

31. Epidemic (types – low, concentrated, generalized, hyperendemic)

The occurrence of more cases of disease than expected in a given area or among a specific group of people over a particular period of time.

There are different ways to describe the distribution of an HIV epidemic in an area:

- Low-level – HIV prevalence is low across the general population and is still low among higher-risk sub-populations
- Concentrated – HIV prevalence does not exceed 1% of the general population but does exceed 5% of some sub-populations (e.g., among sex workers, ***IDU***, ***MSM***)
- Generalized – HIV prevalence exceeds 1% of the general population
- Hyperendemic – HIV prevalence exceeds 15% of the general population

F

32. Feminization

The word used to describe the increasing impact the HIV/AIDS pandemic is having on women. In South Africa, for example, far more women than men are HIV-positive. Globally, approximately half of those living with HIV are women.

33. Fixed Dose Combination (FDC)

Fixed dose combination treatment refers to a combination of two or more drug products, such as antiretrovirals, in a single pill. An example of FDC is the single-pill combination of stavudine, lamivudine and nevirapine.

G

34. Gender Inequality

A phrase typically used to describe the second-class status women hold in many societies affected by the AIDS epidemic. This is important to consider in the context of the AIDS epidemic because the inequality often leaves them unable to negotiate sexual situations, which increases their risk of contracting HIV. Gender inequality is increasingly seen as a major driver of the AIDS epidemic.

35. Generic

A drug that is identical, or bioequivalent, to a brand name drug in dosage, safety, strength, how it is taken, quality, performance, and intended use. The generic name of a drug is the common name of a drug, which is not protected under any manufacturer's copyright. It is the more commonly used format when referring to a drug in medical literature. In addition, generic sometimes refers to less expensive, but chemically identical, medications manufactured by companies that did not invent the drug. In some countries, generic drugs come on the market after a patent on the drug has expired. In other countries, generic drugs are manufactured and sold even before a patent expires.

36. GIPA (Greater Involvement of People Living with HIV/AIDS)

The phrase reflects the recognition that people who are HIV-positive must be involved in every aspect of responding to the epidemic ranging from HIV prevention, testing and counseling to participating in policy forums. The principle was adopted at the Paris AIDS summit in 1994, establishing that GIPA is, in the words of UNAIDS, "critical to ethical and effective national responses to the epidemic."

37. Global Fund

The Global Fund to Fight AIDS, Tuberculosis and Malaria was created in 2001 at the urging of then UN Secretary General Kofi Annan. The Global Fund is a partnership among governments, the private sector and affected communities. It is an independent grant-making organization whose purpose is to raise and provide funding to developing countries fight AIDS, tuberculosis and malaria.

H

38. Highly Active Antiretroviral Treatment (HAART)

A course of treatment that involves the use of three or more antiretrovirals.

39. HIV Test

The standard HIV diagnostic test looks for the presence of HIV antibodies in the blood or in oral fluid. HIV antibodies are molecules produced by the body once it detects the presence of HIV. The production of HIV antibodies does not happen immediately after exposure to the virus. The period after infection, but before production of antibodies, is called the window period. During the window period, an HIV test may be negative. It is possible to test negative despite the presence of HIV in the body. There are several different kinds of HIV tests used to screen for the presence of antibodies.

40. Human Immunodeficiency Virus (HIV)

The virus that causes AIDS. HIV can be transmitted through infected blood, semen, vaginal secretions, breast milk and during pregnancy or delivery. There are two types of HIV: HIV-1 and HIV-2. Both are transmitted through the same methods/manners and result in progression to AIDS. HIV-1 is responsible for the overwhelming majority of global infections, whereas HIV-2 is less widespread and primarily found in West Africa.

41. Human Rights-Based Approach (HRBA) to HIV

The general recognition that human rights must be promoted and protected in the context of dealing with the AIDS epidemic. The UN's *International Guidelines on HIV/AIDS and Human Rights* underscore the links between the protection of human rights—such as gender equality and non-discrimination—and providing an effective response to the epidemic.

I

42. IDU

Acronym for Injection Drug User(s), and refers to individuals who use needles/syringes to inject drugs. This is a major risk for HIV infection in many parts of the world.

43. Immune System

The body's system of defense against foreign organisms such as bacteria, viruses or fungi.

44. Immunodeficiency

A state where the immune system cannot defend itself against infection. HIV progressively weakens the immune system and causes immunodeficiency.

45. Immunosuppression

A state where the immune system cannot function normally because it has been weakened. This can arise from drugs and medical treatments (chemotherapy) or diseases (HIV). An immune system that is immunosuppressed may also be referred to as immunocompromised.

I (continued)

46. Incidence

The number of new cases of a disease in a population over a specific period of time (e.g., annual number of new HIV cases in a country).

47. Incubation Period

The period of time between HIV infection and the onset of symptoms.

M

48. Malaria

Malaria is a disease caused by parasites that are transmitted to humans via mosquito bites. Symptoms of infection may include fever, chills, headache, muscle pain, fatigue, nausea and vomiting. These symptoms usually appear between 9 and 14 days after a person is bitten by an infected mosquito. In severe cases, the disease can be life threatening.

49. MDR-TB

Acronym for "multidrug resistant tuberculosis," a strain of tuberculosis that is resistant to two or more anti-TB drugs. MDR-TB usually arises when people take only enough medication to feel better, but not the full amount prescribed by a physician. The weaker bacteria are killed, but the stronger bacteria survive and reproduce. These stronger bacteria, when fully grown and causing sickness again, cannot be killed with the same treatment and require larger doses of the drug or an entirely new, stronger drug. MDR-TB is a large problem in developing countries, where continual supervision of treatment and access to health care are not always possible.

50. Microbicides

Microbicides are products designed to reduce the transmission of microbes. Research is underway to determine whether microbicides can be developed to successfully reduce the transmission of sexually transmitted diseases, including HIV. Microbicides would be applied topically, either in the vagina or anus and could be produced in many forms, including films, creams, gels, suppositories or as a ring or sponge that releases the active ingredient over time.

51. Mother-to-Child Transmission

This refers to transmission of HIV from an HIV-positive mother to her child during pregnancy, labor and delivery or breast-feeding. Transmission from mother to child is also referred to as ***perinatal*** and ***vertical transmission***.

52. MSM

Acronym for "men who have sex with men." For assessing disease risk, use of the term "MSM" is often used instead of "gay", "homosexual" or "bisexual" because it refers to a risk behavior, rather than an identity that may or may not be tied to a behavior. In many countries and cultures, men who have sex with other men may not perceive themselves as gay or bisexual.

53. MTCT

This stands for "mother-to-child transmission."

54. Multidrug Resistant Tuberculosis (MDR-TB)

See *MDR-TB*.

55. Mutation

A change in an organism's genetic structure that arises during the process of multiplication. HIV multiplies quickly and changes form during the process. These changes allow for the formation of ***drug resistant*** strains of the virus.

O

56. Opportunistic Infection (OI)

Diseases that rarely occur in healthy people but cause infections in individuals whose ***immune systems*** are compromised, including by HIV infection. These disease organisms are frequently present in the body but are generally kept under control by a healthy immune system. When a person infected with HIV develops an OI, they are considered to have progressed to an AIDS diagnosis.

57. Orphans

A child who has lost a parent to HIV/AIDS. UNAIDS estimates that about 15 million children under the age of 18 have lost one or both parents to HIV/AIDS. Use of the phrase "AIDS orphans" is discouraged as it stigmatizes these children and also suggests they are HIV-positive when that may not be the case.

P

58. Pandemic

A worldwide epidemic; occurring over a wide geographic area and affecting an exceptionally high proportion of the population.

59. Pathogen

An organism or virus that causes disease.

60. PEPFAR

The President's Emergency Plan for AIDS Relief (PEPFAR) is a US$15 billion, five-year initiative, initially announced in 2003 by U.S. President George W. Bush to address HIV/AIDS, TB and malaria in developing countries.

61. Perinatal Transmission

Transmission of HIV from an HIV-positive mother to her child during pregnancy, labor and delivery or breast-feeding. Perinatal transmission is also known as ***mother-to-child transmission*** or ***vertical transmission***.

62. Placebo

A substance that resembles a real medication but has no medical effect.

P (continued)

63. PMTCT

PMTCT stands for "prevention of ***mother-to-child transmission***." UNAIDS outlines a three-part strategy to prevent HIV transmission from an HIV-positive mother to her child.

a. Protect females of child-bearing age against HIV infection.
b. Avoid unwanted pregnancies among HIV-positive women.
c. Prevent transmission during pregnancy, delivery and breast-feeding by providing voluntary counseling and testing, ***antiretroviral therapy***, safe delivery practices and breast milk substitutes when appropriate.

64. PMTCT Plus

PMTCT is "***prevention of mother-to-child transmission***" of HIV which is described above. The "plus" refers to providing anti-retroviral treatment to the mother even after the recommended course of therapy for prevention of transmission to the child has ended.

65. Prevalence

Prevalence is a measure of the proportion of the population that has a disease at a specific period in time (e.g., number of people living with HIV).

66. Prevention (primary, secondary)

In the context of HIV, prevention activities are designed to reduce the risk of becoming infected with HIV (primary prevention) and the risk of transmitting the disease to others (secondary prevention). Prevention services include voluntary counseling and testing, condom distribution, disease surveillance, outreach and education, and blood safety and harm reduction programs for intravenous drug users.

67. Primary HIV Infection (PHI)

The first stage of HIV infection, this is the period immediately following infection with HIV. The length of this stage can last for several weeks. HIV multiplies very often and can be transmitted to others during this time. PHI is also known as ***acute HIV infection***.

68. Prophylaxis

Prophylaxis refers to the prevention or protective treatment of disease. Primary prophylaxis refers to the medical treatment that is given to prevent onset of an infection. Secondary prophylaxis refers to medications given to prevent recurrent symptoms in an existing infection.

69. PLHIV / PWA / PLWA / PLWHA

Acronyms for "People living with HIV," "People with HIV/AIDS," and "People living with HIV/AIDS," PLHIV is the preferred description, according to UNAIDS, because it "reflects the fact that an infected person may continue to live well and productively for many years."

R

70. Risky Behavior

This refers to any behavior or action that increases an individual's probability of acquiring or transmitting HIV. Some examples of risky behaviors are having unprotected sex, having unprotected sex with multiple partners and injecting drugs with contaminated equipment. Alcohol use has also been linked to risky behavior because of its effect on an individual's ability to make decisions and negotiate safer sex.

S

71. Scale Up

Refers to the concept of achieving a sufficient level of coverage, uptake, intensity, and duration of an HIV intervention to enable the intended effect.

72. Sexually Transmitted Disease/Infection (STD/STI)

Any disease or infection that is spread through sexual contact.

73. Social Marketing

An approach or technique that refers to the adaptation of commercial marketing techniques to achieve social goals and encourage the adoption of healthier behavior. Social marketing has been used to promote a range of HIV-related prevention techniques including condom use.

74. Stigma and Discrimination

Stigma and discrimination toward HIV-positive people, and those perceived to be HIV-positive, are recognized as obstacles to achieving full access to prevention, treatment and support services. The stigma and discrimination that those at risk, and those living with HIV, may face from governments, communities and families make it less likely the at-risk will seek out care and information.

T

75. Tuberculosis (TB)

Tuberculosis is a bacterial infection caused by *Mycobacterium tuberculosis*. The disease usually affects the lungs but can spread to other parts of the body in serious cases. An individual can become infected with TB when another person who has active TB coughs, sneezes, or spits. Not all people who become infected with TB develop symptoms. Those who do not become ill are referred to as having latent TB and cannot spread the disease to others.

U

76. UNAIDS

Acronym that refers to the Joint United Nations Programme on HIV/AIDS. It is a part of the UN and was established to coordinate its response to HIV/AIDS. Currently, 10 UN organizations and a Secretariat comprise UNAIDS.

U (continued)

77. Universal Precautions

Infection control measures used in health care settings aimed at preventing the transmission of HIV (and other blood-borne pathogens). These measures include the use of gloves and other protective gear, and the safe disposal of needles to prevent exposure to blood and other body fluids.

V

78. Vaccine

A substance that contains a deactivated infectious organism designed to stimulate the immune system to protect against subsequent infection from the active organism. A preventive vaccine preempts infection from that organism. A therapeutic vaccine improves the ability of the immune system of a person already infected with the organism to defend itself.

79. VCT

"Voluntary Counseling and Testing" programs are a critical component of both HIV prevention and treatment activities. VCT is an internationally accepted intervention designed to enable people to learn their HIV status and receive counseling about risk reduction and referral to care if they are HIV-positive. Voluntary HIV testing approaches have relied on both client-initiated or opt-in testing (where the client asks to be tested) and provider-initiated or opt-out testing (where a provider offers testing to a client). Recently, there has been a move to provider-initiated testing to encourage more people to get tested and to make testing a more routine procedure in the health care environment.

80. Vertical Transmission

Transmission of HIV from an HIV-positive mother to her child during pregnancy, birth or breast-feeding. Vertical transmission is also referred to as ***mother-to-child*** or ***perinatal transmission***.

81. Viral Load

The amount or concentration of HIV in the blood. There is a correlation between the amount of virus in the blood and the severity of disease—the higher the viral load, the more progressive the HIV disease. A viral load test is an important tool for doctors in monitoring illness and determining treatment decisions.

82. Vulnerable Populations

Populations that are at increased risk of exposure to HIV due to socioeconomic, cultural or behavioral factors. Vulnerable populations include racial and ethnic minorities, refugees, poor people, men who have sex with men, injection drug users, sex workers, and women where gender inequality is pronounced.

W

83. World Health Organization (WHO)

The WHO is the United Nations agency for health. It is governed by 192 member states and aims to help all individuals achieve the highest possible level of health. It is internationally recognized as one of the leading organizations dedicated to global health, including the prevention and treatment of HIV.

84. World Bank

The World Bank is a development bank that provides loans, policy advice, technical assistance and knowledge sharing services to low- and middle-income countries to reduce poverty. The World Bank is a co-sponsor of UNAIDS and a significant donor to international HIV/AIDS efforts.

REFERENCES AND ADDITIONAL RESOURCES

For other suggested HIV/AIDS-related glossaries, go to GlobalHealthReporting.org: www.globalhealthreporting.org/reportingmanuals

Schuettler, Darren. *Abstinence, Condom Controversy Erupts at AIDS Meet*. Reuters (12 July, 2004)

American Foundation for AIDS Research. *Global Link: A Guide to International HIV/AIDS Research, Treatment, and Clinical Trials*. Vol. 2, No. 1 (Summer 2003)

U.S. Department of Health and Human Services (DHHS) Centers for Disease Control and Prevention. *Glossary of Epidemiology Terms* (April 2007), http://www.cdc.gov/excite/library/glossary.htm

Foreman, M. "ABC of HIV/AIDS." In Boafo, STK, Arnaldo, CA eds. *Media & HIV/AIDS in East and Southern Africa: A resource book*. UNESCO (2000), http://www.unesco.org/webworld/publications/media_aids/index.html

U.S. Department of Health and Human Services (DHHS). *AIDSinfo Glossary* (October 2005), http://www.aidsinfo.nih.gov/ContentFiles/GlossaryHIV-relatedTerms_FifthEdition_en.pdf

Stine, G.J. *AIDS: Update 2003* (New Jersey: Prentice Hall, 2003)

UNAIDS. *Facts about AIDS*, http://www.unaids.org/en/KnowledgeCentre/Resources/QandA/FastFacts/default.asp

UNAIDS. *Social marketing: An effective tool in the global response to HIV/AIDS* (1998)

United Nations Population Fund. *State of the World Population 2003 Making 1 Billion Count: Investing in Adolescents' Health and Rights* (2003), http://www.unfpa.org/publications/detail.cfm?ID=154&filterListType=4

World Health Organization. *WHO Expert Committee on Malaria*. Technical Report Series 892, Twentieth Report (2003), http://whqlibdoc.who.int/trs/WHO_TRS_892.pdf

World Health Organization. *Guidelines For The Treatment of Malaria* (2006), http://www.who.int/malaria/docs/TreatmentGuidelines2006.pdf

World Health Organization. *Frequently asked questions on DDT use for disease vector control* (2004), http://www.who.int/malaria/docs/FAQonDDT.pdf

World Health Organization and UNAIDS. *Second Generation Surveillance for HIV/AIDS* (2002), http://www.who.int/hiv/topics/surveillance/2ndgen/en/

World Health Organization. *Newsletter: The "3 by 5" Target* (February/July 2005), http://www.who.int/3by5/mediacentre/3by5newsletter_0502en.pdf

Ward, D.E. *AmFAR AIDS Handbook: The complete guide to understanding HIV/AIDS.* New York: W.W. Norton & Company, Inc., 1998

UNAIDS. *7th Meeting of the Reference Group on HIV and Human Rights,* http://www.unaids.org/en/PolicyAndPractice/HumanRights/20070216_Ref_group_HIV_HR_pt2.asp

U.S. Department of Health and Human Services (DHHS) Centers for Disease Control and Prevention. *Universal Precautions for Prevention if Transmission of HIV and Other Bloodborne Infections* (March 2005), http://www.cdc.gov/ncidod/dhqp/bp_universal_precautions.html

Global HIV Prevention Working Group. *Bringing HIV Prevention to Scale: An Urgent Global Priority*, http://www.globalhivprevention.org/june_release.html

UNAIDS. *Terminology Guide* (2007), http://data.unaids.org/pub/Manual/2007/20070328_unaids_terminology_guide_en.pdf

Pan American Health Organization. *HIV-related Language: PAHO 2006 Update*, http://www.ops-oms.org/English/AD/FCH/AI/HIVLANGUAGE.PDF

UNAIDS. *HIV/AIDS and Human Rights: International Guidelines*, http://data.unaids.org/publications/irc-pub02/jc520-humanrights_en.pdf

World Health Organization. *WHO and UNAIDS announce recommendations from expert consultation on male circumcision for HIV prevention*, http://www.who.int/hiv/mediacentre/news68/en/index.html

HIV/AIDS TIMELINE

Pre-1981

EARLY SIGNS. While 1981 is referred to as the beginning of the HIV/AIDS epidemic, several recent reports indicate HIV was present years earlier.

1981

AIDS DETECTED. On June 5, United States Centers for Disease Control and Prevention (CDC) reports first cases of rare pneumonia in young gay men.

1982

THE DISEASE IS NAMED. The CDC formally establishes the term Acquired Immune Deficiency Syndrome, AIDS. CDC initially identifies four "risk factors": male homosexuality, injection drug use, Haitian origin and hemophilia A.

AIDS IN AFRICA. The journal *The Lancet* reports an African disease known as "slim" is actually AIDS.

1983

NEW RISK GROUP. The CDC adds female sexual partners of men with AIDS as a fifth risk group.

ORGANIZING EFFORTS. In the United States, the National Association of People with AIDS (NAPWA), National AIDS Network (NAN) and Federation of AIDS Related Organizations form.

THE VIRUS IS DISCOVERED. The virus that causes AIDS is first detected and named Lymphadenopathy-Associated Virus or LAV.

1984

THE VIRUS IS ISOLATED. Scientists Luc Montagnier of the Pasteur Institute in France and Robert Gallo of the National Cancer Institute in the United States isolate the human retrovirus that causes AIDS. It is renamed the Human Immunodeficiency Virus (HIV).

PREVENTIVE MEASURES. World's first needle exchange program (NEP) begins in the Netherlands. It is designed, initially, to address Hepatitis-B among injection drug users (IDUs). Later expanded to address HIV transmission.

1985

FIRST INTERNATIONAL AIDS CONFERENCE. It is sponsored by the World Health Organization (WHO) and the United States Department of Health and Human Services (HHS) and held in Atlanta, Georgia.

DETECTING THE VIRUS. The United States Food and Drug Administration (FDA) approves the first HIV antibody test. Blood products begin to be tested in the U.S. and Japan.

MOTHER TO CHILD. The United States Public Health Service issues first recommendations for preventing transmission of HIV from mother to child.

1985 (continued)

AIDS AND U.S. MILITARY. The United States Department of Defense announces it will begin testing all new recruits for HIV infection and will reject those who are positive.

GLOBAL HIV. At least one case of HIV/AIDS is reported in every region of the world. One and a half million people worldwide are living with HIV, according to estimates by the Joint United Nations Programme on AIDS (UNAIDS).

1986

CALL TO ACTION. The United States Institute of Medicine calls for a national education campaign and creation of National Commission on AIDS.

ORGANIZING GLOBALLY. International Steering Committee for People with HIV/AIDS (ISC) is created. (In 1992, name changed to Global Network of People Living with HIV/AIDS, or GNP+.)

1987

FIRST DRUG TREATMENT. The FDA approves the first antiretroviral agent for the treatment of AIDS. It is called Zidovudine or AZT.

VACCINE TESTING. The FDA sanctions first human testing of candidate vaccine against HIV.

REAGAN AND AIDS. United States President Ronald Reagan makes first public speech about AIDS and establishes Presidential Commission on HIV.

MANDATED TESTING. The United States adds HIV as a "dangerous contagious disease" to its immigration exclusion list. It mandates HIV testing of all immigration applicants.

GLOBAL EFFORTS BROADEN. WHO launches the Global Program on AIDS (GPA).

1988

INTERNATIONAL RECOGNITION. WHO declares first World AIDS day on December 1st.

ORGANIZING AROUND AIDS. The United States National Institutes of Health (NIH) establish the Office of AIDS Research and the AIDS Clinical Trials Group (ACTG). The International AIDS Society, made up of professionals working on HIV/AIDS, is founded.

NEEDLE EXCHANGE. First comprehensive needle exchange program established in North America in Tacoma, Washington.

1990

CONFERENCE BOYCOTT. To protest U.S. immigration policy, domestic and international non-governmental groups boycott the VI Annual International AIDS conference in San Francisco, California.

TREATING CHILDREN. The FDA approves use of AZT for pediatric AIDS.

GLOBAL HIV. About eight million people are living with HIV worldwide, according to UNAIDS estimates.

1991

AIDS SYMBOL. Red ribbon is introduced as the international symbol of AIDS awareness and solidarity.

1992

AIDS DEATHS. AIDS becomes the number one cause of death among American men 25 to 44 years old and remains so through 1995.

1995

TREATMENTS ADVANCE. FDA approves first protease inhibitor—saquinavir—for use in combination with other HIV drugs. This ushers in a new era of highly active antiretroviral therapy (HAART).

UNAIDS CREATED. The Joint United Nations Programme on HIV/AIDS established to coordinate efforts of six different UN programs devoted to AIDS. It is known as UNAIDS and becomes operational in 1996.

RUSSIAN ACTIVISM. Russia enacts a federal AIDS law, guaranteeing free access to treatment for HIV-positive citizens.

GLOBAL HIV. About 18 million people worldwide are living with HIV, according to UNAIDS estimates.

1996

VACCINE DEVELOPMENT. A non-governmental organization forms to eliminate barriers to development of an HIV vaccine. It is called the International AIDS Vaccine Initiative, IAVI.

BRAZILIAN ACTIVISM. Brazil manufactures generic antiretroviral drugs in a challenge to international patent laws. The drugs are free for those in need. Brazil becomes the first developing country to begin national ARV distribution.

1997

U.S. PROGRESS. AIDS-related deaths in the US decline by more than 40% compared to the prior year, largely due to HAART.

1998

VACCINE TRIALS. The first large scale human trial of an HIV vaccine begins in North America.

AFRICAN AMERICAN ACTIVISM. African American leaders declare a "state of emergency" in the African American community due to HIV/AIDS.

SOUTH AFRICAN ACTIVISM. Treatment Action Campaign (TAC) is formed in South Africa. The grassroots movement pushes for access to treatment.

1999

NEW U.S. FUNDING. The U.S. announces new funding for the global pandemic. It is administered through LIFE, the Leadership and Investment in Fighting Epidemic Initiative.

VACCINE TRIALS. The first human vaccine trial in a developing country begins in Thailand.

MBEKI ON AIDS. South African President Thabo Mbeki stirs worldwide controversy by questioning the link between HIV and AIDS.

2000

GLOBAL ATTENTION. U.S. and UN Security Council declare HIV/AIDS a security threat.

CONFERENCE LANDMARK. Under the slogan, "Breaking the Silence," the XIII International AIDS conference is held in a developing nation—South Africa. It heightens awareness of the global pandemic and its impact in hard-hit regions.

CHEAPER DRUGS. UNAIDS, WHO and other global health groups announce initiative with five major drug makers to negotiate lower prices for AIDS drugs in developing countries.

KAUNDA ON AIDS. Former Zambian President Kenneth Kaunda announces his son's death in 1986 was from an AIDS-related illness. Pledges commitment to fight AIDS.

AFRICAN TEENS. UNAIDS predicts up to half of teens in the most severely affected nations of southern Africa will die prematurely because of AIDS.

GLOBAL HIV. More than 27 million people worldwide are living with HIV, according to UNAIDS estimates.

2001

GLOBAL ATTENTION. UN General Assembly convenes first-ever special session on HIV/AIDS.

GLOBAL ACTIVISM. UN Secretary General Kofi Annan calls for creation of a Global Fund at the African summit on HIV/AIDS in Abuja. U.S. offers first pledge to support The Global Fund.

CHEAPER DRUGS. The World Trade Organization (WTO) meeting in Doha, Qatar, agrees that despite patent laws, developing countries can buy or manufacture cheaper generic drugs to meet public health crises, such as HIV/AIDS.

DRUG MAKERS RESPOND. Generic drug manufacturers offer to produce discounted, generic forms of HIV/AIDS drugs. Several brand name drug makers agree to offer further reduced drug prices in developing world.

AIDS IN SOUTH AFRICA. The government's Department of Health reports 4.74 million South Africans are HIV-positive.

DEATH IN AFRICA. AIDS is the leading cause of death in sub-Saharan Africa, according to UNAIDS and the WHO.

2002

GLOBAL FUND. The Global Fund to Fight AIDS, Tuberculosis and Malaria becomes operational and awards its first round of grants.

SOUTH AFRICAN GOVERNMENT ACTS. The government commits to intensifying campaign to prevent HIV infection. Campaign rests on premise that HIV causes AIDS.

DRUG ACCESS. U.S. President George W. Bush issues Executive Order to help developing countries import or produce less expensive generic forms of HIV drugs. UNAIDS, WHO and other global health groups announce initiative with five major drug manufacturers to negotiate reduced prices for AIDS drugs in developing countries.

DEATHS WORLDWIDE. HIV becomes leading cause of death worldwide among those 15 to 59 years of age.

WOMEN AND HIV. UNAIDS reports that women comprise half of all adults living with HIV worldwide.

2003

WHO CAMPAIGN. WHO launches the 3x5 Initiative, the campaign to provide antiretroviral treatment to 3 million people by 2005.

VACCINE TRIAL IN SOUTH AFRICA. Phase I of a human vaccine trial launched in South Africa in partnership with U.S.

PUTIN SPEAKS. Russian President Vladimir Putin, in his Annual Address to the Federal Assembly, describes declining life expectancy as a serious threat to Russia's future. He says "AIDS is making it worse."

BUSH PLAN. United States President George W. Bush announces PEPFAR, the President's Emergency Plan for AIDS Relief, a five-year, US$15 billion initiative to address HIV/AIDS, tuberculosis and malaria primarily in hard-hit countries.

DRUG ACCESS. The William J. Clinton Presidential Foundation secures price reductions for AIDS drugs from generic manufacturers. Thirteen developing nations will benefit.

2004

CONFERENCE LANDMARK. The XV International Conference on AIDS is held in Bangkok, Thailand. First conference held in Southeast Asia.

GMAI CREATED. Global media leaders meet at the United Nations and form the Global Media AIDS Initiative. The GMAI leverages the power of media to prevent the spread of HIV.

BUSH PLAN BEGINS. PEPFAR, President Bush's Emergency Plan for AIDS Relief, begins first round of funding.

WOMEN AND AIDS. UNAIDS launches The Global Coalition on Women and AIDS to raise the visibility of the epidemic's impact on women and girls around the world.

2005

ECONOMIC PRIORITY. At World Economic Forum's Annual Meeting in Davos, Switzerland, priorities include a focus on addressing HIV/AIDS in Africa and other hard hit regions of the world.

HISTORIC ANNOUNCEMENT. At an historic and unprecedented joint press conference, the World Health Organization, UNAIDS, the United States Government and the Global Fund to Fight AIDS, Tuberculosis and Malaria announce results of joint efforts to increase the availability of antiretroviral drugs in developing countries.

GLOBAL HIV. More than 32 million people worldwide are living with HIV, according to UNAIDS estimates.

2006

GLOBAL ATTENTION. The United Nations convenes a follow-up meeting to assess progress related to the historic 2001 Declaration of Commitment on HIV/AIDS.

EURASIA MEETING. The first Eastern European and Central Asian AIDS conference (EECAAC) is held in Moscow.

AIDS CONFERENCE. The XVI International AIDS Conference is held in Toronto, Canada. The conference's theme, "Time to Deliver," underscores the continued threat of HIV/AIDS and the need for nations to honor financial, programmatic and political commitments to prevention and treatment of HIV/AIDS.

AIDS MILESTONE. June 5, 2006, marks a quarter-century since the U.S. government issued its first warning about a disease that would become known as AIDS.

2007

MALE CIRCUMCISION. The WHO and UNAIDS recommend male circumcision "always be considered as part of a comprehensive HIV prevention package."

HIV TESTING. The WHO and UNAIDS issue guidance that health care providers recommend HIV testing and counseling to all patients in countries with generalized epidemics.

GLOBAL HIV. More than 33 million people worldwide are living with HIV, according to UNAIDS estimates.

2008

AIDS CONFERENCE. The XVII International AIDS Conference is held in Mexico City, Mexico. The conference theme is "Universal Action *Now*."

ADDITIONAL RESOURCES

A more extensive version of the HIV/AIDS timeline can be found on The Kaiser Family Foundation website: www.kff.org/hivaids/timeline/index.cfm.

UNAIDS. *25 Years of AIDS: A Timeline*, http://www.un.org/Pubs/chronicle/2006/issue2/0206p06.htm

AVERT. *History of AIDS*, http://www.avert.org/historyi.htm

U.S. Department of Health and Human Services (DHHS) Centers for Disease Control and Prevention. *Milestones in the U.S. HIV Epidemic*, http://www.cdc.gov/hiv/resources/other/PDF/TimeLine%202006.pdf

FREQUENTLY ASKED QUESTIONS ABOUT HIV/AIDS

What is HIV?

HIV stands for Human Immunodeficiency Virus. HIV destroys certain blood cells called CD4 or T cells. These cells are crucial to the normal function of the immune system, which defends the body against illness. When the immune system has been compromised by HIV, a person typically develops a variety of cancers and viral, bacterial, parasitic and fungal infections.

What is AIDS?

AIDS stands for Acquired Immunodeficiency Syndrome. It occurs when the immune system is weakened by HIV to the point where a person develops any number of diseases or cancers. A person without these diseases or cancers can still be diagnosed with AIDS if a laboratory test shows a severely damaged immune system.

Where did HIV come from?

In 1999, scientists reported that they had discovered the origin of HIV-1. They identified a subspecies of chimpanzees native to West Equatorial Africa as the original source of the virus. The virus most likely was introduced into the human population when hunters were exposed to the infected blood of non-human primates.

How is HIV detected?

It is impossible to look at someone and know whether he or she is HIV-positive. The only sure way to determine this is through an HIV test. A blood or oral fluid sample can reveal the presence of the virus. If the sample contains HIV antibodies—proteins the body produces to fight off the infection—the person is HIV-positive.

How is HIV transmitted?

HIV is primarily transmitted through unprotected sex, including vaginal, anal and oral sex. Certain bodily fluids including blood, semen, vaginal secretions and breast milk transmit HIV. The virus can also be transmitted through infected blood contained in needles used to inject drugs. An HIV positive woman can pass the virus to her baby during pregnancy and delivery or through breast-feeding. HIV is also transmitted through contaminated, unscreened blood supplies.

How is HIV not transmitted?

HIV is not an easy virus to pass from one person to another. The virus does not survive well outside the body. So, it cannot be transmitted through casual or everyday contact such as shaking hands or hugging. Sweat, tears, vomit, feces and urine do contain small amounts of HIV, but they have not been reported to transmit the disease. Mosquitoes and other insects do not transmit HIV.

How can HIV transmission be prevented?

The surest way to avoid transmission is to avoid identified high-risk behaviors. If that is not done, various health organizations have determined that: latex condoms can significantly reduce the risk of transmission during sex; that pregnant women who are HIV-positive can reduce the likelihood of transmitting the virus to their children through antiretroviral treatment; new mothers can reduce the likelihood of transmitting the virus to their infants through alternative infant-feeding options, instead of breast-feeding, if available; and that injection drug users can reduce the risk of transmission by not sharing needles and syringes.

How long does it take for HIV to become AIDS?

The length of time varies from person to person and depends a great deal on whether there is access to treatment, a person's health status and their health-related behaviors. UNAIDS estimates that in countries where there is little or no access to treatment the period of time for most people between HIV-infection and developing AIDS is 9 to 11 years.

Antiretroviral therapy can slow the progression of HIV to AIDS by decreasing the amount of virus in a person's body. As with other diseases, early detection of HIV infection allows for more options for treatment and preventive health care

What is the link between HIV and Tuberculosis?

The HIV epidemic is largely responsible for the growing number of TB cases in many parts of the world. HIV weakens the cells in the immune system that are needed to fight TB; up to half of all people living with HIV/AIDS eventually develop TB. Worldwide, TB is the leading cause of death among HIV-positive people.

What is the link between HIV and sexually transmitted diseases/infections (STDs/STIs)?

People with sexually transmitted diseases/infections are far more vulnerable than others to becoming infected with HIV. For example, genital ulcers caused by herpes create an entry point for HIV. STDs create concentrations of cells in the genital area that become targets for HIV. Also, HIV-positive people are far more vulnerable to acquiring additional sexually transmitted diseases/infections than other people. Their immune systems are compromised, which means the body has a more difficult time fighting off infection. Additionally, if an HIV-positive person is infected with another STD, that person is three to five times more likely than other HIV-positive people to transmit HIV through sexual contact.

Is there a cure for HIV/AIDS?

There is no known cure for HIV/AIDS. There are medical treatments that can slow down the rate at which HIV weakens the immune system. There are other treatments that can prevent or cure some of the illnesses associated with AIDS. Researchers are testing a variety of vaccine candidates, but it is likely that a successful vaccine is years away. The International AIDS Vaccine Initiative (http://www.iavi.org) and the AIDS Vaccine Advocacy Coalition (http://www.avac.org) are the main clearinghouses of information about vaccine research. There is more information at *Vaccine Research and Testing* in this manual.

How many people have HIV/AIDS?

The United Nations Joint Programme on HIV/AIDS (UNAIDS) estimates that in 2007 there were more than 33 million people worldwide living with HIV/AIDS, including 2.5 million who were newly infected with HIV. The most recent report from UNAIDS includes a significant decline in the number of people estimated to be living with HIV/AIDS globally, compared to prior published estimates. UNAIDS attributes the revision to "improved and expanded epidemiological data and analyses that present a better understanding of the global epidemic," rather than an actual decline in the number of people living with HIV/AIDS.

What HIV/AIDS statistics are the most reliable?

UNAIDS provides the most extensive set of statistics related to the global epidemic at www.unaids.org. The statistics are compiled in consultation with country-level experts and international epidemiologists. Every country keeps count in its own way and some are more complete than others. There is more information on this in *Frequently Asked Questions About Covering HIV/AIDS* and *Understanding and Reporting on HIV/AIDS Data*.

What do endemic, epidemic, pandemic, and hyperendemic mean?

Endemic is the constant presence of a disease or infectious agent in a certain geographic area. Epidemic is the rapid spread of a disease in a certain area or among a certain population group. Pandemic is a worldwide epidemic; an epidemic occurring over a wide geographic area and affecting an exceptionally high proportion of the population. Hyperendemic means HIV prevalence exceeds 15% of the general population.

What is ARV?

ARV stands for antiretroviral. It is a class of drugs designed to slow the reproduction of HIV in the body. If ARV treatment is effective, the onset of AIDS can be delayed for years. It is recommended that ARV drugs be used in combination. There is more information on this in *Drugs Used in the Treatment of HIV (FDA-Approved)*.

What is HAART?

HAART stands for highly active antiretroviral therapy. It is the combination of at least three ARV drugs that attack different parts of HIV or stop the virus from entering blood cells. Even among people who respond well to HAART, the treatment does not eradicate HIV. The virus continues to reproduce but at a slower pace.

How many people have access to ARV treatment?

Access to antiretroviral (ARV) treatment has increased more than seven-fold since December 2003 in low- and middle-income countries; however, only 31% of people living with HIV/AIDS and in need of ARVs were estimated to be receiving treatment as of December 2007. This represents almost 3 million of the estimated 9.7 million people in need of antiretroviral treatment in these countries. .

What is drug resistance?

Drug resistance is the ability of an organism (e.g., a virus, bacterium, parasite or fungus) to adapt, grow and multiply even in the presence of drugs that usually kill it. It reduces the ability of ARV drugs to block the replication of HIV. In some people on ARVs, HIV mutates into new strains that are highly resistant to current drugs.

What is ABC?

ABC stands for abstinence, being faithful to a single partner and condom use. It is an approach to prevention that certain organizations and governments promote as a means to stop the spread of HIV.

What is the Global Fund?

The Global Fund to Fight AIDS, Tuberculosis and Malaria was created in 2001 at the urging of then-UN Secretary General Kofi Annan. The Global Fund is a partnership among governments, the private sector and affected communities. It is an independent grant-making organization whose purpose is to mobilize and provide funding to developing countries to fight AIDS, tuberculosis and malaria.

What is PEPFAR?

The President's Emergency Plan for AIDS Relief was launched in 2004 by U.S. President George W. Bush and represents the largest single commitment by a government to fight the global pandemic. PEPFAR is a multi-year multi-billion dollar plan to assist countries with implementing prevention, treatment and care programs. It operates in over 120 countries but focuses most closely on 15 countries in Africa, Asia and the Caribbean which account for about 50% of HIV infections worldwide.

What is absorptive capacity?

Absorptive capacity in the context of the global HIV epidemic is used to refer to the ability of developing countries to efficiently spend foreign aid money. Given the limitations of health systems in developing countries, it is a challenge to process, disperse and manage outside assistance especially since many developing countries receive aid from numerous donors, each with their own preferences and requirements.

What regions of the world have a health care worker shortage and what is its impact?

More than a billion people around the world lack access to basic health care due to a deficiency of training and recruiting of health care workers. Fifty-seven countries, 36 of them in sub-Saharan Africa, are in urgent need of health care workers. The shortage, of some four million workers, serves as an obstacle to the provision of essential, life-saving interventions such as immunization, safe pregnancy, delivery service for mothers treatment for HIV/AIDS, malaria and tuberculosis.

ADDITIONAL RESOURCES

Kaiser Family Foundation. *Global Health Reporting* website, *HIV/AIDS FAQs,* http://www.globalhealthreporting.org/diseaseinfo.asp?id=24

UNAIDS. *Questions and Answers about HIV/AIDS,* http://www.unaids.org/en/KnowledgeCentre/Resources/QandA/default.asp

U.S. Department of Health and Human Services. *Centers for Disease Control and Prevention,* http://www.cdc.gov/hiv/resources/qa/index.htm

HIV PREVENTION

HIV is preventable, so prevention is a critical component of the response to HIV/AIDS. HIV prevention includes both:

- **Primary Prevention:** to reduce the risk of becoming infected with HIV
- **Secondary Prevention:** to reduce the risk that a person infected with HIV will transmit HIV to others and to keep that person as healthy as possible

There are many success stories of prevention programs around the world that have helped bring about a leveling or even decrease in new HIV infections. A recent study projects that greater spending on a scaled up response to prevention would prevent more than half of the new HIV infections that would otherwise occur by 2015, and would produce financial savings to society as future costs for treatment and care are reduced. However, according to UNAIDS, there is a significant gap between current prevention spending and funding needs, and there are many obstacles facing prevention efforts. Globally, it is estimated that most people at risk for HIV do not yet have access to needed HIV prevention services, and that eight in ten of those already infected with HIV do not know their status.

Challenges to HIV Prevention Include:

- Human behavior is difficult to change, as is sustaining behavior change over time; indeed, HIV prevention is for life, much like antiretroviral treatment for those who are living with HIV.
- There is strong stigma surrounding the disease, which may discourage those at risk from seeking information about HIV from getting tested, or from disclosing their HIV status to potential partners.
- Given the role that sex and drug use play in HIV transmission, there are often political and other sensitivities to addressing HIV prevention and a lack of consensus about approach.
- Most people with HIV do not know they are infected.
- Levels of knowledge of HIV and how it is transmitted are low in many countries.
- It is difficult to measure "what did not happen" (e.g., HIV infections averted) versus, for example, measuring the number of people receiving antiretroviral therapy. This makes it difficult to show impact.
- Prevention efforts need to be scaled up, at sufficient intensity, and for a sufficient amount of time to show impact, since it can take many years for declines in HIV incidence to manifest.
- Gender and cultural factors, severe poverty, other diseases and health threats, underdeveloped health infrastructures, and political instability existing in many of the countries hardest hit by the disease further complicate prevention efforts.

There is no single intervention to prevent the spread of HIV. Multifaceted, integrated, long-term strategies have been shown to have the greatest impact. Effective prevention efforts reflect a wide range of factors related to the epidemiology of the disease, as well as the specific socioeconomic and cultural norms and structures of specific populations. These factors are important to consider when targeting and designing prevention programs as, even within a country, the epidemic can be very diverse in terms of the extent of its impact, transmission patterns and the populations most affected. Further, it is important that prevention efforts address the underlying social factors that have been linked to contributing to greater risk for HIV infection, including poverty, gender inequalities, and stigma and discrimination. It is also important for programs to be culturally appropriate and to take into account the role of media, schools, parents, youth and leaders in a given area, engaging these groups in prevention efforts where appropriate. Finally, it has also been shown that HIV prevention efforts are most effective when integrated with HIV treatment.

Currently, research is being conducted on a range of new interventions and technologies that may have important implications for HIV prevention, including male circumcision, pre-exposure prophylaxis with antiretroviral drugs (taking medication before possible exposure to HIV to reduce the likelihood of infection if exposed), microbicides and vaccines. Should these prove effective, they will provide additional prevention options. Recent results from randomized controlled trials of male circumcision demonstrated that circumcision is effective at significantly reducing the risk of HIV transmission from women to men, and it is now recommended by the WHO and UNAIDS as an effective component of a broader HIV prevention strategy.

An effective vaccine to prevent HIV transmission, which would offer the greatest promise for HIV prevention, is unfortunately many years away from being discovered, and even if discovered, will not prevent HIV transmission 100% of the time—this means that the broader HIV prevention strategies we use today will still be critical.

HIV prevention encompasses numerous types of interventions and programs and it is critical that prevention efforts be tailored to the target population(s) at risk and specific to the type of epidemic faced (low-level, concentrated, generalized, hyperendemic). As UNAIDS has stated, it is most important to "Know Your Epidemic" in order to respond effectively. Below is a list of some of the many interventions that encompass HIV prevention:

HIV Prevention Interventions

- Mass media efforts
- Community mobilization
- Voluntary counseling and testing
- Partner notification and referral
- Programs for youth in school
- Programs for youth out of school
- Programs focused on sex workers and their clients
- Programs focused on men who have sex with men
- Harm-reduction programs for injection drug users
- Workplace interventions
- Programs for people already living with HIV to prevent them from transmitting the disease to others
- Programs targeting special populations
- Condom social marketing
- Public and commercial sector condom provision
- Improving management of sexually transmitted infections
- Prevention of mother-to-child transmission
- Blood safety
- Post-exposure prophylaxis
- Safe medical injections
- Universal precautions

REFERENCES AND RESOURCES

Global HIV Prevention Working Group Reports. http://www.kff.org/hivaids/hivghpwgpackage.cfm

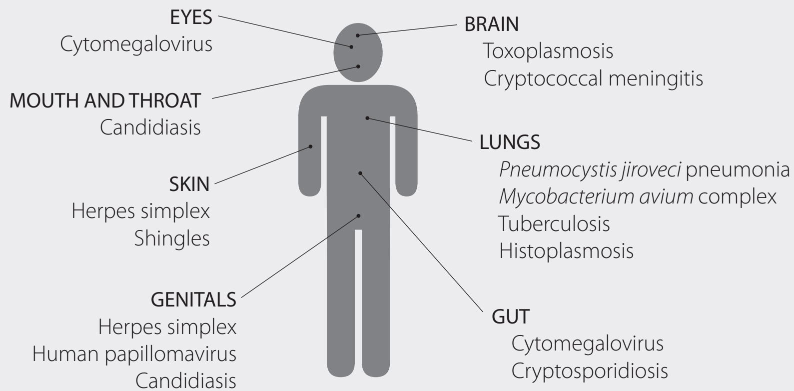
UNAIDS. *Intensifying Prevention: The Road to Universal Access*; chapter in *AIDS Epidemic Update 2005* (December 2005), http://www.unaids.org/epi/2005/doc/report_pdf.asp

UNAIDS. *Policy Position Paper: Intensifying HIV Prevention* (August 2005), http://data.unaids.org/publications/irc-pub06/jc1165-intensif_hiv-newstyle_en.pdf

UNAIDS. *Resource Needs for an Expanded Response to AIDS in Low- and Middle-Income Countries* (August 2005), http://data.unaids.org/pub/Report/2005/jc1239_resource_needs_en.pdf

OPPORTUNISTIC INFECTIONS

ORGAN-SPECIFIC OPPORTUNISTIC INFECTIONS IN HIV-INFECTED INDIVIDUALS



Fauci, A.S. (2004, March 20) *HIV Therapies and Vaccines: Progress and Priorities*. Kaiser Family Foundation: *AIDS in America: A Forgotten Epidemic?* A Conference for News Leaders. Barbara Jordan Conference Center, Washington, D.C.

General Notes

- **Opportunistic Infections (OI)** are diseases that rarely occur in healthy people but cause infections in individuals whose immune systems are compromised, including by HIV infection. Organisms that cause OIs are frequently present in the body but are generally kept under control by a healthy immune system. HIV gradually weakens a person's immune system and leads to the development of one or more opportunistic infections, which signals the progression to AIDS. These illnesses are generally the eventual cause of death due to HIV infection.
- **Prophylaxis** refers to the prevention or protective treatment of disease. Primary prophylaxis refers to the medical treatment that is given to prevent onset of an infection. Secondary prophylaxis refers to medications given to prevent recurrent symptoms in an existing infection.
- **Antiretroviral therapy** refers to any of a range of treatments that include antiretroviral medications. These drugs are designed to destroy retroviruses such as HIV, or interfere with their ability to replicate. HAART (Highly Active Antiretroviral Treatment) refers to a course of treatment that involves the use of three or more antiretroviral drugs. HAART strengthens the immune system and therefore helps protect against opportunistic infections.

BRAIN

Cryptococcal Meningitis [krip-toe-KOK-kull men-in-JY-tiss] is caused by *Cryptococcus*, a fungus commonly found in soil contaminated by bird droppings. People become infected with *Cryptococcus* by breathing in dust that is contaminated with the fungus. Although most people have been exposed to this fungus, it does not usually cause disease in healthy individuals. Among people with HIV, infection most often results in meningitis. Symptoms may include fever, headache, nausea, vomiting, stiff neck, mental confusion, vision problems and coma. *Cryptococcal* meningitis does not spread from one person to another. Primary

prophylaxis (treatment to prevent disease) and secondary prophylaxis (treatment to prevent disease recurrence) are available. The disease can be treated with anti-fungal medications. Without treatment, death can occur quite rapidly.

Toxoplasmosis [tock-so-plaz-MO-sis] (also referred to as Toxo) is an infection caused by a parasite found in cat feces, raw meat, raw vegetables, and soil. Infection can result from eating contaminated food or contact with cat droppings. Toxo can infect many parts of the body but most commonly causes encephalitis, an infection of the brain. It cannot be spread from one person to another and does not cause infection among people with healthy immune systems. Symptoms may include fever, confusion, headache, personality changes, tremors and seizures and can result in coma and death. Primary and secondary prophylaxes are available. Toxo can be treated with a combination of anti-toxo drugs.

EYES

Cytomegalovirus [sigh-TOE-meg-a-low-VY-rus] (also referred to as **CMV**) is a virus that typically causes an eye disease called **retinitis** [ret-tin-EYE-tis]. Retinitis is the most common type of CMV infection among people with HIV. CMV can be passed from person to person through saliva, semen, vaginal secretions, urine, breast milk and transfusions of infected blood. While anyone can be infected with CMV, illness occurs only among people with weakened immune systems. Symptoms may include blind spots and blurred, distorted or decreased vision that can progress to complete blindness. Primary prophylaxis may be recommended in certain cases. Forms of treatment for retinitis include intravenous medications, pills and injection of drugs directly into the eye. Secondary prophylaxis is also available. If left untreated the disease will cause blindness.

MOUTH

Candidiasis [can-did-EYE-a-sis] is the most common fungal infection in people with HIV. It usually affects the mouth, throat, lungs and vagina (see *Genitals*). The fungi that cause Candidiasis are naturally present in the human body and are responsible for most cases of the disease, but rare cases of person-to-person transmission have been recorded. Although anyone can develop the disease, it is more common among people with HIV. Infection in the mouth is called *thrush* and can cause pain when swallowing, nausea and loss of appetite. Symptoms of throat infection may include chest pain and difficulty swallowing. Primary prophylaxis is not recommended and use of secondary prophylaxis may be recommended in certain cases. There are a variety of treatments available to control infection.

SKIN

Herpes simplex [HER-peez SIM-plex] is a disease caused by the Herpes simplex virus. There are two types of Herpes simplex virus (HSV): HSV1, which causes cold sores or blisters around the mouth and the eyes; and HSV2, which causes genital or anal herpes. The viruses are spread from one person to another by contact with an infected area such as the mouth and genitals. Symptoms appear in outbreaks of rash, which may involve itching, tingling and the appearance of painful blisters or sores. HSV can affect anyone but outbreaks are more frequent and more serious in people with HIV. Although there is no prevention or cure for HSV, there are treatments that shorten the length and severity of the outbreaks.

Herpes zoster [HER-peez ZOS-tur], also known as **shingles**, is caused by the virus responsible for the chickenpox, Herpes Varicella-zoster virus. Although it can also affect HIV-negative individuals it is most common among people with HIV because of their weakened immune systems. It results in very painful rashes and blisters on the chest, back and face. The rash typically affects one side of the body and lasts for a few weeks. There are no primary or secondary prophylaxes available for shingles. Treatments include anti-herpes drugs and pain medications.

INTESTINES / GUT

Cryptosporidiosis [krip-toe-spor-rid-ee-O-sis] (also referred to as Crypto) is an intestinal infection that is easily spread through contact with water, feces or food that have been contaminated with a common parasite called *Cryptosporidium*. Symptoms may include diarrhea, nausea, vomiting, weight loss and stomach cramps. Infection usually lasts one to two weeks in HIV-negative individuals, but can last much longer and be life-threatening in people with HIV. While there are no medications that prevent or treat crypto, there are a variety of treatments to control the diarrhea caused by infection.

Cytomegalovirus [sigh-TOE-meg-a-low-VY-rus] (also referred to as CMV) is a virus that most commonly affects the eyes (see *Eyes*), but among people with HIV it can also cause colitis [ko-LY-tis], which is an infection of the colon. CMV can be passed from person to person through saliva, semen, vaginal secretions, urine, breast milk and transfusions of infected blood. While anyone can be infected with CMV, illness occurs only among people with weakened immune systems. Symptoms of CMV colitis may include abdominal pain, diarrhea, cramps, weight loss and blood loss. Primary and secondary prophylaxes, and treatments are available.

GENITALS

Candidiasis [can-did-EYE-a-sis] is the most common fungal infection in people with HIV. It usually affects the vagina, mouth (see *Mouth*), throat and lungs. The fungi that cause Candidiasis are naturally present in the human body and are responsible for most cases of the disease, but rare cases of person-to-person transmission have been recorded. Although anyone can develop the disease it is more common among people with HIV. Symptoms of vaginal infection may include white discharge, itching, and pain during urination or sexual activity. Primary prophylaxis is not recommended and secondary prophylaxis may be recommended in certain cases. Anti-fungal treatments help control the fungus but recurrence of the infection is common.

Herpes simplex [HER-peez SIM-plex] is a disease caused by the Herpes simplex virus. There are two types of Herpes simplex virus (HSV): HSV1, which causes cold sores or blisters around the mouth and the eyes; and HSV2, which causes genital or anal herpes. The viruses are spread from one person to another by contact with an infected area such as the mouth and genitals. Symptoms appear in outbreaks of rash, which may involve itching, tingling and the appearance of painful blisters or sores. HSV can affect anyone but outbreaks are more frequent and more serious in people with HIV. Although there is no prevention or cure for HSV, there are treatments that shorten the length and severity of the outbreaks.

Human papillomavirus [pa-pill-LOW-muh-VY-rus] (also referred to as HPV) is a commonly occurring genital infection that is caused by a group of viruses called human papillomavirus. HPV is easily passed from person to person through direct contact with infected areas, for example during sexual activity. It can cause genital warts, which look like bumps on the penis, vagina and anus. Certain types of HPV are also linked to cervical cancer. The virus can be passed from one person to another even when a person is asymptomatic. Anyone can be infected with HPV but infection is usually short in healthy people. Among people with HIV, HPV infection is more serious, can recur frequently and last for long periods of time. These persistent infections are associated with higher risks of cervical cancer. In June 2006, the first HPV vaccine, Gardasil, produced by Merck, was approved by the U.S. Food and Drug Administration (FDA) for use in females between the ages of 9 and 26. The vaccine is nearly 100% effective against four types of HPV. There are numerous ways to remove warts and dysplasias.

LUNGS

Histoplasmosis [hiss-toe-plaz-MO-sis] is caused by a fungus found in soil contaminated with bird droppings or other organic matter. People get infected by breathing in dust that is contaminated with the fungus. Anyone can be infected with the fungus but people with HIV are more likely to develop the disease. Symptoms may include fever, weight loss, fatigue, difficulty breathing and swollen lymph nodes. Histoplasmosis typically affects the lungs, but among people with weakened immune systems, the disease can spread to the rest of the body. That is a serious complication that can be fatal if left untreated. Histoplasmosis is not transmitted through person-to-person contact. Primary prophylaxis is not currently recommended. Anti-fungal medications are available for treatment of histoplasmosis and secondary prophylaxis is available to prevent disease recurrence.

Mycobacterium avium Complex [MY-ko-back-TEER-ree-um A-vee-um] (also referred to as MAC) is an illness caused by *Mycobacterium avium* and *Mycobacterium intracellulare*. These two similar types of bacteria are commonly found in water, soil, dust and food. Anyone can be infected with the bacteria but HIV-infected individuals are at higher risk of developing serious disease. Disease symptoms may include fever, weight loss, night sweats and weakness. Infection can occur at one site in the body or can spread throughout the body. A variety of drugs are available to treat and prevent MAC.

Pneumocystis jiroveci pneumonia [NEW-mo-SIS-tis yee-row-vet-zee new-MO-knee-yuh], formerly known as *pneumocystic carinii* pneumonia, is caused by a fungus and usually appears as a lung infection. The fungus is believed to be spread through the air. Although it can be present in the lungs of any individual, it causes serious disease only when an infected individual's immune system becomes weakened. It is the most common opportunistic infection among people with HIV. Symptoms may include dry cough, chest tightness, fever and difficulty breathing. Although PJP is entirely preventable and treatable, it is a serious disease that can be fatal if untreated. There are a variety of drugs available for primary and secondary prophylaxis and treatment of PJP.

Tuberculosis [too-burr-kyu-LOW-sis] (also referred to as TB) is a common bacterial infection among people with HIV. An individual can become infected with TB when another person who has active TB coughs, sneezes or talks. Although TB also affects HIV-negative individuals, people with HIV are at higher risk of infection. While not all infected people become ill, TB infection speeds up HIV progression and is the leading cause of death among people with HIV worldwide. Symptoms may include fever, cough, night sweats, weight loss, fatigue, swollen lymph nodes and coughing up blood. Primary prophylaxis is available but secondary prophylaxis is not considered to be necessary. A variety of antibiotics are used in treatment of TB. Depending on the severity of infection, treatment can last for many months or even years.

GUIDE TO DRUG DEVELOPMENT AND APPROVAL

This information was developed by Gilead Sciences, a biopharmaceutical company. We are grateful for permission to reprint the material.

Before a new drug can be prescribed for patient use, it must first be approved by the U.S. Food and Drug Administration (FDA) Center for Drug Evaluation and Research (CDER). CDER is responsible for overseeing the testing and development of new drugs and new drug uses, and for ensuring that the methods used in drug development are both safe and effective.

CDER does not actually test new drugs. That responsibility falls to the company or institution developing the drug, also known as the "sponsor." Before a new treatment can be approved by the FDA, a sponsor must extensively test the new drug and submit the data collected to CDER for review.

Throughout the development and testing process, CDER scrutinizes everything from the design of the drug's clinical trials to the nature of side effects to the manufacturing conditions under which it will be produced and packaged.

Preclinical Testing

Before approaching the FDA for permission to test a new drug in humans, the sponsor must first analyze the drug in the lab and thoroughly test it in animals to make an initial determination about its safety and effectiveness. These preclinical trials are the first step in the development and approval of a new treatment.

Preclinical trials mark the end of the road for the vast majority of experimental drugs. According to industry research, only one out of every 1,000 potential new drugs proceeds from preclinical to clinical trials.

Investigational New Drug Applications (IND)

If preclinical trials are successful, the sponsor can submit an Investigational New Drug Application (IND) to the FDA. This document includes the results of the preclinical testing and proposes a "protocol" for clinical trials—a detailed plan of how the sponsor will test the drug in humans.

Each protocol is reviewed both by CDER and a local Institutional Review Board (IRB), an independent panel of scientists and other experts that has the authority to approve, change or reject research designs.

Before the clinical trial can proceed, both CDER and IRB must determine that the research protocol is sound and that the sponsors will take appropriate steps to inform trial participants of any risks and make every effort to protect participants from harm.

Clinical Trials

There are four stages or "phases" of clinical studies, the human trials required for a drug to be considered for approval.

Phase I

The primary goal for Phase I trials is to evaluate the safety of the drug and determine how the drug behaves in the body (also known as pharmacokinetics). These initial clinical tests help to identify a drug's most frequent side effects when used for relatively short periods of time (days to weeks). Phase I trials often investigate the drug's effects at several dose levels and typically involve a relatively small number of participants (generally between 20 and 100). Roughly 70% of the drugs that make it this far successfully navigate Phase I trials.

Phase II

Phase II trials are designed to provide evidence for effectiveness—whether the drug provides a benefit against a certain disease or condition. Safety continues to be evaluated, and short-term side effects are also studied. Phase II studies generally last from several months to two years and involve anywhere from a few dozen to several hundred subjects. About one-third of drugs that enter Phase II trials proceed to the next phase.

Phase III

These large-scale studies involve larger groups of participants and generally last from one to five years. Phase III trials gather additional information about safety and effectiveness by studying how the drug affects different populations in different dosages and examining how it interacts with other drugs. Roughly 30% of drugs that enter Phase III trials go on to seek FDA approval.

Phase IV

These "post-marketing" studies take place only after the drug being tested has been approved by the FDA. Phase IV trials may be used to evaluate long-term safety and efficacy of the drug, to explore alternate uses for a treatment or its effects on other patient populations.

New Drug Application (NDA)

Before the FDA will consider approving a new drug for marketing in the United States, the sponsor must file a New Drug Application (NDA), a document that tells the entire "life story" of a drug's development. The NDA includes detailed analyses of the results of each preclinical and clinical trial, information about how the drug works and behaves in the body, as well as information about how the drug will be manufactured.

Once a sponsor files an NDA, the FDA has 10 months (six, if the drug is a new compound for the treatment of a very serious illness) to review the application. The FDA may then reject the application outright, return it to the sponsor as incomplete or approve the drug as a treatment for a specific condition.

Sources: FDA, PhRMA, WebMD.com, AIDSmeds.com, New Mexico AIDS Infonet and AIDSinfo.nih.gov

IMPORTANT TERMS IN ANTIRETROVIRAL THERAPY

Term	Description
Antiretroviral Therapy (ART)	ART refers to any of a range of treatments that include antiretroviral (ARV) medications. These drugs are designed to destroy retroviruses or interfere with their ability to replicate. ART suppresses the ability of HIV to multiply, slowing the progression of the disease. The six classes of antiretroviral drugs currently available are nucleoside reverse transcriptase inhibitors (NRTI), non-nucleoside reverse transcriptase inhibitors (NNRTI), protease inhibitors (PI), fusion inhibitors, entry inhibitors and HIV integrase strand transfer inhibitors. The drugs on the following pages are all antiretrovirals.
Combination Therapy	The use of two or more antiretrovirals in combination.
Entry Inhibitors – CCR5 Co-receptor Antagonist	Entry inhibitors constitute a new class of antiretrovirals designed to combat infections that are increasingly resistant to older therapies. They are designed to disrupt the ability of HIV to enter a host cell through the cell's surface and they target the CCR5 receptor.
Food and Drug Administration (FDA)	The U.S. Department of Health and Human Services' agency responsible for ensuring the safety and effectiveness of all drugs, biologics, vaccines and medical devices, including those used in the diagnosis, treatment and prevention of HIV infection, AIDS and AIDS-related opportunistic infections. The FDA also works with the blood-banking industry to safeguard the nation's blood supply.
Fusion Inhibitor	Fusion Inhibitors are a class of ART that work by blocking HIV from entering target cells and preventing it from multiplying, since HIV needs to be inside the cells to make copies of itself.
Generic Drug	A drug that is identical or bioequivalent to a brand name drug in dosage, safety, strength, how it is taken, quality, performance and intended use. The generic name of a drug is the common name of the drug and not protected under any manufacturer's copyright. It is the more commonly used format when referring to a drug in medical literature or the media. Generic sometimes refers to less expensive but chemically identical medications manufactured by companies that did not invent the drug. In some countries, generic drugs come on the market after a patent on the drug has expired. In other countries, generic drugs are manufactured and sold even before a patent expires.
HAART (Highly Active Antiretroviral Therapy)	Refers to ARV treatment regimens that act aggressively to suppress the replication of HIV and progression of HIV disease. The usual HAART regimen involves the use of three or more antiretrovirals.
HIV Integrase Strand Transfer inhibitors	HIV integrase inhibitors are a relatively new class of antiretrovirals. They are designed to interfere with a part of the replication process by preventing the HIV integrase protein from inserting HIV's genetic information into an infected cell's own DNA.
Multi-class Combination Products	Multi-class combination products combine various classes of HIV antiretroviral drugs to increase the efficacy of treatment and the ease of staying on the prescribed medication. The only multi-class combination product available (Atripla, as of Spring, 2008) is taken once a day and combines three known and proven HIV treatments.
Nucleoside Reverse Transcriptase Inhibitor (NRTI)	Nucleoside Reverse Transcriptase Inhibitors are a class of ART that block the replication of HIV by interfering with Reverse Transcriptase (RT), a protein that HIV needs to make more copies of itself.

Term	Description
Non-Nucleoside Reverse Transcriptase Inhibitor (NNRTI)	Non-nucleoside Reverse Transcriptase Inhibitors are a class of ART that block the replication of HIV by interfering with Reverse Transcriptase, a protein that HIV needs to make more copies of itself. NNRTIs work in a slightly different way than NRTIs.
Protease Inhibitor (PI)	Protease Inhibitors are a class of ART that act by blocking the function of protease, a protein that HIV needs to make more copies of itself.
Single Tablet Regimen (STR)	A single, daily pill that contains multiple antiretroviral drugs. The treatment can greatly simplify combination therapy, which can require patients to take as many as 30 or more pills a day.
Trade/Brand Name	The trade name is the name designated by the drug manufacturer. The first letter of the trade name is capitalized.

DRUGS USED IN THE TREATMENT OF HIV INFECTION (FDA-Approved)

The U.S. Food and Drug Administration oversees the drug approval process which is described in detail in the "Guide to Drug Development and Approval." The FDA chart below of approved AIDS drugs is current as of Spring, 2008. We recommend you check online periodically for updates at http://www.fda.gov/oashi/aids/virals.html.

While most antiretrovirals remain under patent protection in the U.S., the FDA has given "tentative" approval to several dozen generic AIDS drugs—most of them fixed-dose combination drugs. This enables PEPFAR, the President's Emergency Program for AIDS Relief, to purchase these drugs and distribute them outside of the U.S. When this plan was announced in 2004 by the Bush Administration the *New York Times* reported that "the quicker (approval) process is intended to encourage manufacturers to produce the fixed-dose combinations to ease delivery of drugs in remote areas in severely affected countries and to make their use safer."

The World Health Organization also operates a prequalification process for medications, including generic antiretrovirals. This is done in partnership with the FDA and other national regulatory agencies. The "Prequalification Programme" develops and maintains a list of drug products for HIV/AIDS, malaria, tuberculosis and for reproductive health which is primarily used by United Nations agencies—including UNAIDS and UNICEF—to guide their procurement decisions. The list is also used by many national governments and by the Global Fund to Fight AIDS, Tuberculosis and Malaria. The drug list can be found at http://mednet3.who.int/prequal/.

Brand Name	Generic Names	Manufacturer Name	Approval Date	Time to Approval
Multi-class Combination Products				
Atripla	efavirenz, emtricitabine and tenofovir disoproxil fumarate	Bristol-Myers Squibb and Gilead Sciences	12-Jul-06	2.5 months
Nucleoside Reverse Transcriptase Inhibitors (NRTIs)				
Combivir	lamivudine and zidovudine	GlaxoSmithKline	27-Sep-97	3.9 months
Emtriva	emtricitabine, FTC	Gilead Sciences	02-Jul-03	10 months
Epivir	lamivudine, 3TC	GlaxoSmithKline	17-Nov-95	4.4 months
Epzicom	abacavir and lamivudine	GlaxoSmithKline	02-Aug-04	10 months
Hivid	zalcitabine, dideoxycytidine, ddC	Hoffmann-La Roche	19-Jun-92	7.6 months
Retrovir	zidovudine, azidothymidine, AZT, ZDV	GlaxoSmithKline	19-Mar-87	3.5 months
Trizivir	abacavir, zidovudine, and lamivudine	GlaxoSmithKline	14-Nov-00	10.9 months
Truvada	tenofovir disoproxil fumarate and emtricitabine	Gilead Sciences, Inc.	02-Aug-04	5 months
Videx EC	enteric coated didanosine, ddI EC	Bristol Myers-Squibb	31-Oct-00	9 months
Videx	didanosine, dideoxyinosine, ddI	Bristol Myers-Squibb	09-Oct-91	6 months

Brand Name	Generic Names	Manufacturer Name	Approval Date	Time to Approval
Nucleoside Reverse Transcriptase Inhibitors (NRTIs) (continued)				
Viread	tenofovir disoproxil fumarate, TDF	Gilead	26-Oct-01	5.9 months
Zerit	stavudine, d4T	Bristol Myers-Squibb	24-Jun-94	5.9 months
Ziagen	abacavir sulfate, ABC	GlaxoSmithKline	17-Dec-98	5.8 months
Nonnucleoside Reverse Transcriptase Inhibitors (NNRTIs)				
Intelence	etravirine	Tibotec Therapeutics	18-Jan-08	6 months
Rescriptor	delavirdine, DLV	Pfizer	04-Apr-97	8.7 months
Sustiva	efavirenz, EFV	Bristol Myers-Squibb	17-Sep-98	3.2 months
Viramune	nevirapine, NVP	Boehringer Ingelheim	21-Jun-96	3.9 months
Protease Inhibitors (PIs)				
Agenerase	amprenavir, APV	GlaxoSmithKline	15-Apr-99	6 months
Aptivus	tipranavir, TPV	Boehringer Ingelheim	22-Jun-05	6 months
Crixivan	indinavir, IDV,	Merck & Co., Inc.	13-Mar-96	1.4 months
Fortovase	saquinavir (no longer marketed)	Hoffmann-La Roche	07-Nov-97	5.9 months
Invirase	saquinavir mesylate, SQV	Hoffmann-La Roche	06-Dec-95	3.2 months
Kaletra	lopinavir and ritonavir, LPV/RTV	Abbott Laboratories	15-Sep-00	3.5 months
Lexiva	fosamprenavir calcium, FOS-APV	GlaxoSmithKline	20-Oct-03	10 months
Norvir	ritonavir, RTV	Abbott Laboratories	01-Mar-96	2.3 months
Prezista	darunavir	Tibotec, Inc.	23-Jun-06	6 months
Reyataz	atazanavir sulfate, ATV	Bristol-Myers Squibb	20-Jun-03	6 months
Viracept	nelfinavir mesylate, NFV	Agouron Pharmaceuticals	14-Mar-97	2.6 months
Fusion Inhibitors				
Fuzeon	enfuvirtide, T-20	Hoffmann-La Roche & Trimeris	13-Mar-03	6 months
Entry Inhibitors - CCR5 co-receptor antagonist				
Selzentry	maraviroc	Pfizer	06-Aug-07	8 months
HIV integrase strand transfer inhibitors				
Isentress	raltegravir	Merck & Co., Inc.	12-Oct-07	6 months

ADDITIONAL RESOURCES

U.S. Food and Drug Administration. *Generic Drugs Used in the Treatment of HIV Infection,* http://www.fda.gov/oashi/aids/viralsgeneric.html

U.S. Food and Drug Administration. *Drugs Used to Treat Complications of HIV/AIDS*, http://www.fda.gov/oashi/aids/stat_app.html

U.S. Food and Drug Administration. *Drugs Used in the Treatment of Pediatric HIV Infection*, http://www.fda.gov/oashi/aids/pedlbl.html

World Health Organization. *WHO – Health Systems and Services: Prequalification Programme,* http://mednet3.who.int/prequal/default.htm

The Global Fund to Fight AIDS, Tuberculosis, and Malaria. *Lists of ARVs, TB and Malaria Products,* http://www.theglobalfund.org/en/about/procurement/list/

Pieperl, L. and S. Coffey. *Antiretroviral Drug Profiles*, http://hivinsite.ucsf.edu/InSite?page=ar-drugs

U.S. Department of Health and Human Services (DHHS). *AIDSinfo Drug Database*, http://aidsinfo.nih.gov/drugs/

AIDS VACCINE RESEARCH AND TESTING

This information was developed by IAVI, The International AIDS Vaccine Initiative; more information can be found at www.iavi.org. We are grateful for permission to reprint this material.

AIDS VACCINE Q&A

The world faces one of the greatest public health threats in six centuries: HIV/AIDS. Scientists and public health experts believe that only through a combination of prevention, treatment and care plus broad global access to a preventive vaccine can the global epidemic be ended.

What is a vaccine?

A vaccine is a substance that teaches the body to recognize and defend itself against organisms that cause disease. A vaccine causes a response from the immune system, the body's defense system, that prepares it to fight, and leaves a memory of how to fight, in case of exposure to a specific infection. A vaccine is not a cure but rather prevents infection or slows the progression of a disease in the event infection occurs.

Why are vaccines important?

Disease prevention through immunization is not a new concept; vaccines have been around for hundreds of years. The first modern vaccine was developed in 1796 by Edward Jenner to prevent smallpox. With the exception of clean drinking water, no other human health intervention has had the impact of vaccination on reducing infectious diseases. Every year, vaccines prevent up to 3 million deaths and save 750,000 children from disability. Through vaccination, smallpox, which once killed about a million people a year in Europe alone, has been eradicated globally. Polio is close to elimination, thanks to vaccines. Other vaccines—including those for rabies, tetanus, measles, mumps, and hepatitis A and B—when used as part of national immunization campaigns save millions of lives and millions of dollars in health care expenses. Immunization has been documented as one of the most cost-effective means of improving public health.

Are vaccines 100% effective in preventing disease?

No vaccine is 100% effective. In fact, most vaccines protect between 70% and 95% of those vaccinated against the targeted disease. This is the concept of partial efficacy. A vaccine does not have to be 100% effective to have a large impact on public health in a community if a significant segment of the population receives the vaccine. Successful mass vaccination programs create so-called herd immunity. If enough people in a community are vaccinated with an effective vaccine, there are statistically fewer chances for an infectious disease to be transmitted, thus lowering the risk of infection for people who have not been vaccinated and for individuals for whom the vaccine is not effective. Some statistical modeling of how HIV spreads has suggested that an AIDS vaccine with even 30% efficacy could have benefit under certain circumstances.

What is the difference between a preventive and a therapeutic AIDS vaccine?

In common parlance, "vaccine" typically refers to a preventive vaccine. A preventive vaccine is designed for individuals who are not infected with the targeted pathogen, for example, HIV. The vaccine would either prevent the individual from becoming infected when exposed to the virus, or if infection occurs, the vaccine would slow the progression of disease. A therapeutic vaccine would be designed to reduce the impact of HIV/AIDS in individuals already infected with the virus.

Why is there a need for a vaccine to prevent HIV/AIDS?

Data from countries with ongoing HIV/AIDS prevention and/or treatment and care programs demonstrate that these initiatives alone are not enough to end the global epidemic. History suggests that with major epidemics of infectious diseases, like smallpox and polio, only mass immunization programs with an effective vaccine can bring an end to epidemics. Today's medicines against HIV/AIDS, called antiretroviral treatments, are not cures. They are highly expensive, in part because they must be taken every day for life. A vaccine should be seen as part of a comprehensive response to HIV/AIDS. In order to curb or stop the global epidemic, both short-term and long-term solutions must be used. Short-term solutions include scaling up prevention campaigns such as education on safer sex, making male circumcision available and safe, ensuring treatment of the millions already infected, and mitigating the socio/economic impacts of the epidemic. The long-term solutions depend on developing new prevention methods including a preventive AIDS vaccine. As the World Bank emphasizes, investment in cost-effective interventions that prevent transmission of communicable disease—specifically vaccines—is one of the best uses of scarce public funds.

How would an AIDS vaccine work?

An effective AIDS vaccine would teach the body to recognize the human immunodeficiency virus (HIV) that causes AIDS and provoke an immune response that would defend against the virus if it entered the body. The information on how to defeat the virus would become part of the immune system's memory; the immune system would be prepared to fight back every time it encounters the virus.

Why do scientists believe a preventive AIDS vaccine is possible?

Researchers know that the immune systems of some individuals have a natural ability to prevent infection with HIV. In other individuals, the immune system appears to control the progression of the disease. Experimental vaccines against simian immunodeficiency virus (SIV), a close cousin of HIV that infects monkeys, have been shown to prevent AIDS. Some HIV-infected individuals produce antibodies that are capable of neutralizing the majority of strains of HIV circulating in the world today; these antibodies, injected into non-human primates, work like an effective vaccine. Together, these findings support the scientific potential for a vaccine to prevent AIDS in humans. Currently there are more than two dozen potential vaccines in clinical trials in humans, and at least as many are in earlier stages of study.

Why isn't an AIDS vaccine currently available?

Developing a vaccine is never easy; it took 47 years from the discovery of the polio virus to the development of a polio vaccine. With chicken pox it took 34 years. The vaccine for rotavirus, which causes diarrheal disease, took 25. HIV was discovered in 1983 and we've only had a serious AIDS vaccine effort for about a decade. To date, only two experimental AIDS vaccines have completed efficacy testing. Developing a vaccine to prevent HIV/AIDS is particularly challenging given that HIV is one of the most complicated viruses ever identified. HIV targets and destroys the very immune system that a vaccine traditionally triggers. And the genetic instability of HIV is daunting: millions of viruses are constantly produced and their mutation rates are spectacular. The immune system is presented with an endless stream of new forms of the virus that it is unable to recognize and control.

There are other scientific challenges to AIDS vaccine development, including the lack of a fully adequate model for early testing of candidates in animals. There are questions of what will be the most effective approach or combination of approaches to triggering an immune response to HIV: cellular, humoral or mucosal. And finally, it is yet unknown whether a single universal vaccine can create immunity against the different subtypes, or clades, of the HIV virus, or if a different vaccine must be developed against each clade.

For private sector vaccine developers, a major disincentive for capital investment in AIDS vaccine research is the fact that the primary markets for a vaccine would be in the poorest countries in the world—those least likely to have the resources to ensure a reasonable return on investment.

Can an AIDS vaccine cause AIDS?

The preventive AIDS vaccines currently in human trials do not contain any live virus that could result in HIV infection, thus they cannot cause AIDS. These vaccine candidates contain only harmless particles or copies of particles of the HIV virus—enough to trigger the body's immune system but not cause disease. They are so-called recombinant vaccines that use genetically engineered components of HIV. These vaccines are something like a motor car with the engine removed. They are still recognizable as a car but can't drive.

How is an AIDS vaccine tested?

Vaccines and other pharmaceutical products are tested in stages, each taking a number of years. Initial laboratory work—to establish a scientific concept or platform for research—is followed by animal studies to establish overall safety. Only then can human clinical trials take place. During the human trials, the candidate vaccine is tested in volunteers to continue to evaluate safety and effectiveness.

There are three stages or phases of human clinical trials. For an AIDS vaccine specifically, Phase I involves a relatively small number of healthy HIV-uninfected adult volunteers at low risk of HIV infection. Phase I tests for safety. Phase II involves about 200 to 500 healthy HIV-uninfected adult volunteers, some of whom are at higher risk of HIV infection. Phase II tests for safety, an immune system response, as well as early information on required dose and route of administration of the vaccine. Phase III trials involve several thousand adult volunteers at high risk of HIV infection to assess the efficacy of the vaccine in preventing HIV infection and AIDS.

What is involved in obtaining approval to conduct a vaccine trial?

To obtain approval to study a vaccine candidate in humans, a comprehensive package of preclinical and manufacturing data must be submitted to the appropriate national regulatory agencies for review. In the United States, for example, the Food and Drug Administration must review and approve every investigational new drug (IND) application. Each participating institution or trial center also must obtain study approval from its institutional review board or ethics committee. Depending on the country, the review process can take several months or more. Often the vaccine developer will have to supply additional information or revise sections of the proposed trial protocol.

Who participates in AIDS vaccine trials?

Adult volunteers who meet the health and risk criteria outlined in the trial protocol and who give informed consent can participate.

How are the rights of volunteers in an AIDS vaccine trial protected?

There are established international guidelines for ethical treatment of all volunteers in pharmaceutical and vaccine trials. These guidelines are reinforced by an independent review system on a national and trial-site basis. All potential volunteers must be counseled on informed consent—a written agreement to participate in a trial based on the volunteer's complete understanding of all relevant information. Sponsors of clinical trials must demonstrate that they will employ only competent and highly trained research staff and will take all the steps needed to maximize the confidentiality of volunteers. Throughout the trial, volunteers in an AIDS vaccine trial receive extensive counseling on how to reduce their risk of exposure to HIV as well as access to prevention methods such as condoms. A volunteer can decide to leave the study at any time without explanation.

Does every volunteer in a trial receive the vaccine candidate?

Usually, no. To test the effectiveness of the candidate vaccine, most trials are designed to include a control group. Volunteers in the control group receive a placebo, which is a substance that looks just like the vaccine but is inactive. Assignment to the vaccine or placebo group is done randomly and neither the volunteers nor the researchers know who has been given the placebo or the vaccine until the end of the trial; this is known as blinding. Blinding is done to minimize the chances that volunteers will alter their behavior because they've received the vaccine, for instance, or that researchers will make assumptions about how volunteers are faring based on whether they received the vaccine or placebo.

What sort of side effects might an AIDS vaccine trial volunteer experience?

Some volunteers may experience pain, tenderness, redness or swelling at the injection site, or mild flu-like symptoms such as headache and fever. Some volunteers may experience no side effects at all. Vaccine trials are carefully monitored to ensure the safety of the participants.

ADDITIONAL RESOURCES

AIDS Vaccine Advocacy Coalition. http://www.avac.org/index.htm

The Global Alliance for Vaccines and Immunization. http://www.gavialliance.org

The Global HIV Vaccine Enterprise. http://www.hivvaccineenterprise.org

World Health Organization. *WHO – UNAIDS HIV Vaccine Initiative,* http://www.who.int/vaccine_research/diseases/hiv/en/

U.S. Department of Health and Human Services. *AIDSinfo Vaccines,* http://www.aidsinfo.nih.gov/Vaccines/Default.aspx?MenuItem=Vaccines

GLOBAL GOALS AND FINANCIAL COMMITMENTS

The HIV/AIDS epidemic requires substantial funding to develop and sustain prevention, care and support, treatment and research programs. The funding must be provided by all sectors including donor organizations, the private sector and governments whose countries have been affected by HIV/AIDS. There have been a series of international HIV/AIDS commitments recognizing that the scale of the AIDS epidemic requires a global partnership to integrate efforts at all levels. This section provides a brief overview of these major commitments and discusses the key sectors that provide financial resources to combat HIV/AIDS.

Global Goals

The United Nations General Assembly adopted two major documents establishing significant goals in the global fight against HIV/AIDS. In 2000, members adopted the Millennium Development Goals (MDGs). While not specific to HIV/AIDS, the MDGs do call for a halt to the spread of AIDS by 2015. In 2001, nations attending the United Nations General Assembly Special Session on HIV/AIDS (UNGASS), the first such session devoted to HIV, adopted a blueprint for action in "The Declaration of Commitment on HIV/AIDS (DoC)." The UN describes this as a landmark document, which "identifies goals and targets based on human rights law and principles in four areas: prevention of new infections, provision of improved care, support and treatment for those infected with and affected by HIV/AIDS, reduction of vulnerability, and mitigation of the social and economic impact of HIV/AIDS." There are numerous goals in the Declaration, such as reducing the percentage of young people who are HIV-positive by 25% and reducing the percentage of HIV-infected newborns by 50% by 2010. In 2006, then Secretary General Kofi Annan reported uneven progress in reaching the UNGASS goals. UNAIDS is reviewing country progress reports and plans to issue an update on UNGASS in 2008. (Refer to www.unaids.org for an update on this.)

In 2003, UNAIDS and the World Health Organization established the ambitious goal of providing access to treatment to 3 million people in the developing world by the year 2005. Although global treatment access has been significantly increased since that time, the 3x5 Initiative did not meet this goal. In recognition of that, and in an effort to achieve the Millennium Development Goals, an even more ambitious program was established. In 2005, at the Group of Eight Summit and then at the UN General Assembly World Summit there was a call "to implement a package for HIV prevention, treatment and care with the aim of coming as close as possible to the goal of universal access to treatment by 2010 for all those who need it."

Funding The Response

Funding for HIV/AIDS has increased significantly over the last decade. Still, securing the money needed to meet the goals described above has emerged as one of the world's greatest challenges. Often, the countries most affected have the fewest resources. Consequently, the role of international donor assistance in low- and middle-income countries is critical. Analysis by UNAIDS and others indicate there is a significant gap between the resources that are needed and the funding that is available. Funding needs for achieving universal access are projected to rise over time. UNAIDS has estimated that the cost of achieving universal access would reach US$30 billion in 2009 and US$42 billion by 2010. Available financial resources would have to quadruple over current levels to meet these targets. If not, the gap between what is provided and what is needed would remain.

Financing for HIV/AIDS in low- and middle-income countries is provided by four major funding streams, which are described below:

> Donor Governments: Donor governments provide virtually all of the world's development assistance for HIV/AIDS. The funds are either given directly by one government to a country through its government, a non-governmental organization (NGO), or another entity. The donor government may also contribute to multilateral organizations. The bulk of donor government assistance comes from the G8—Canada, France, Germany, Italy, Japan, Russia, the United Kingdom and the U.S. The U.S. provides the largest commitment of any donor.

Other donor governments, outside of the G8, who contribute significant amounts include the Netherlands and Sweden.

Multilateral Organizations: Multilateral organizations provide significant resources to combating HIV/ AIDS. They receive their funding primarily from governments but may also receive funding from private organizations and individuals. The main multilateral organizations in the fight against HIV/AIDS are: the Global Fund to Fight AIDS, Tuberculosis and Malaria, which was established in 2001 and is an independent, public-private partnership; the World Bank, which has been supporting AIDS efforts since 1986, including through its Multi-Country HIV/AIDS Program (MAP) for Africa and the Caribbean; and numerous entities within the United Nations whose activities are coordinated by UNAIDS.

Private Sector: The private sector includes foundations, corporations, international NGOs and individuals. Together they represent an important funding stream for HIV/AIDS, often acting to pilot new and innovative strategies, leveraging existing ones and developing partnerships within the private sector. Support can also come in the form of non-cash commodities such as price reductions for AIDS drugs and in-kind support.

Domestic Resources: Spending by governments and individuals in affected countries represents a significant part of the response to HIV/AIDS. The extent of support by domestic governments varies greatly and depends upon income, debt, availability of external resources and political commitment. In addition to domestic government support, households and individuals within affected countries often shoulder at least some, if not much, of the financial burden.

REFERENCES AND ADDITIONAL RESOURCES

UNAIDS. *The Road to Universal Access*, http://www.unaids.org/en/PolicyAndPractice/TowardsUniversalAccess/default.asp

UNAIDS. *Report on the Global AIDS Epidemic* (2007), http://www.unaids.org/en/KnowledgeCentre/HIVData/EpiUpdate/EpiUpdArchive/2007default.asp

UNAIDS. *Financial Resources Required to Achieve Universal Access to HIV Prevention, Treatment, Care and Support*, http://data.unaids.org/pub/Report/2007/20070925_advocacy_grne2_en.pdf

UNAIDS. *UNAIDS Practical Guidelines for Intensifying HIV Prevention Towards Universal Access*, http://data.unaids.org/pub/Manual/2007/20070306_prevention_guidelines_towards_universal_access_en.pdf

UNAIDS. *Resource Tracking and Projections*, http://www.unaids.org/en/KnowledgeCentre/HIVData/Tracking/

Kaiser Family Foundation. *International Assistance for HIV/AIDS and Global Health in the Developing World*, http://www.kff.org/hivaids/internationalfinancing.cfm

United Nations Development Programme. *Millennium Development Goals*, http://www.un.org/millenniumgoals/

World Bank. *Approved and Active HIV/AIDS Projects and Disbursements as of January 4, 2008*, http://siteresources.worldbank.org/INTHIVAIDS/Resources/WorldBankHIVAIDSLendingandDisbursement04Jan08.xls

The Global Fund to Fight AIDS, Tuberculosis and Malaria. *Donors' Pledges and Contributions*, http://www.theglobalfund.org/en/files/pledges&contributions.xls

United Nations. *Declaration of Commitment on HIV/AIDS Adopted by the General Assembly* (2001), http://www.un.org/ga/aids/coverage/FinalDeclarationHIVAIDS.html

United Nations, Office of the United Nations High Commissioner for Human Rights. *UNGASS Declaration of Commitment on HIV/AIDS*, (June 2001), http://www2.ohchr.org/english/issues/hiv/ungass.htm

SELECT KEY FIGURES

The list that follows provides a broad range of information about individuals involved in the HIV/AIDS epidemic either as leaders of major institutions, as national and international newsmakers or as important historical figures. These are people from all over the world involved in the medical, social, political, economic and cultural aspects of the crisis. Where possible, we have provided website links that will lead you to more information about these individuals and the organizations with which they are associated.

Adurrazack (Zackie) Achmat

Achmat is a prominent South African activist who has led campaigns to end apartheid, combat discrimination against gays and lesbians and secure drug access for South Africans living with AIDS. He co-founded and chairs the Treatment Action Campaign (TAC), which is an influential force in the fight to expand access to treatment for people living with HIV/AIDS. For a time, Achmat, who is HIV-positive, refused to take ARVs until the government pledged to make drugs available and affordable for all in need.

www.tac.org.za

George Alleyne

Sir George Alleyne has served as the United Nations Special Envoy for HIV/AIDS for the Caribbean since 2003. That same year the Caribbean Community (CARICOM) appointed him head of a new commission to examine health issues confronting the region, including HIV/AIDS, and their impact on national economies. Sir George served for many years with the Pan-American Health Organization (PAHO) and retired as Director in 2003.

www.unaids.org/en/AboutUNAIDS/Leadership/SpecialEnvoys
www.caricom.org

Kofi Annan

Annan served as Secretary-General of the United Nations from 1997 through 2006. During his tenure, Annan advocated for increased global attention to HIV/AIDS and described the epidemic as his "personal priority." In 2001, Annan convened the groundbreaking UN General Assembly Special Session on HIV/AIDS. He also issued a five-point "Call to Action," which led to the creation of the Global Fund to Fight AIDS, Tuberculosis and Malaria. In 2001, Annan was awarded the Nobel Peace Prize.

www.un.org

Bono

Bono, lead singer of the Irish rock band U2, has long used his celebrity to draw the attention of politicians to the crises of HIV/AIDS and impoverished African nations. In 2002, he co-founded DATA, which stands for Debt, AIDS, Trade, Africa. Through DATA, Bono lobbies wealthy governments to increase resources for Africa and forgive debt obligations so money can be directed to fighting AIDS and other social crises. In 2006, he created (RED), to engage consumer power in the fight against AIDS. A percentage of the profits from the sale of (RED) products goes to the Global Fund.

www.data.org
www.joinred.com

Pedro Cahn

Dr. Cahn MD, Ph.D. is Chief of the Infectious Diseases Unit, Juan A Fernandez Hospital and Assistant Professor in Infectious Diseases at the Buenos Aires University Medical School, where he received his medical degree. In 1989, Dr. Cahn founded Fundación Huésped, one of the most prestigious HIV/AIDS NGOs in Argentina, where he now serves as Director. He served as Co-Chair of the International AIDS Conference in Mexico City in 2008 and is a former President of the International AIDS Society.

www.huesped.org.ar

Pedro Chequer

Dr. Chequer is coordinator of the United Nations AIDS program in Brazil. He co-founded and for several years was director of Brazil's National AIDS Program where he oversaw the implementation of Brazil's policy of universal access to treatment and prevention.

www.unaids.org/en/CountryResponses/Countries/brazil.asp

William J. Clinton

Clinton served two terms as President of the United States from 1992 to 2000. In 2003, he announced the creation of the Clinton Foundation HIV/AIDS Initiative (CHAI) to expand access to life-saving medicines and help developing countries systematize their approach to HIV/AIDS treatment. One of the Initiative's important, early successes was to convince five generic drug companies to dramatically reduce the costs of commonly used antiretroviral drugs for people in developing countries. In 2002, at the International AIDS Conference in Barcelona, Mr. Clinton said, "There are still people who view AIDS as something that affects only people who are different. We all know the victims."

www.clintonfoundation.org
www.clintonpresidentialcenter.org

Jerry Coovadia

Dr. Coovadia is the Victor Daitz Professor of HIV Research and Scientific Director of the Doris Duke Medical Research Institute at the University of Natal in Durban, South Africa. He has worked extensively on prevention of mother-to-child transmission of HIV through breast-feeding. Dr. Coovadia has had leadership roles at conferences staged by the International AIDS Society in South Africa.

www.ddcf.org
www.ias2009.org

Kevin De Cock

Dr. De Cock is the director of the World Health Organization's Department of HIV/AIDS. Previously, he served as Director of the U.S. Centers for Disease Control and Prevention (CDC) in Kenya. In his current role, Dr. De Cock oversees all of the WHO's work related to HIV/AIDS, focusing on initiatives to assist developing countries in scaling up their treatment, prevention, care and support programs.

www.who.int/hiv

Mark Dybul

Dr. Dybul served as U.S. Global AIDS Coordinator in the Bush Administration from 2006 until early 2009. As the Global AIDS Coordinator, he was responsible for overseeing, implementing and expanding the President's Emergency Plan for AIDS Relief, PEPFAR. He is currently a senior advisor to the Global Business Coalition and a Distinguished Scholar and Co-Director of the O'Neill Institute for National and Global Health Law at Georgetown University in Washington, D.C. Dr. Dybul has had a long career as a researcher and clinician in the field of HIV, with a focus on the development of U.S. and international protocols for HIV therapy.

www.gbcimpact.org
www.law.georgetown.edu/oneillinstitute

Wafaa El-Sadr

Dr. El-Sadr is the Director of the International Center for AIDS Care and Treatment Programs (ICAP), an initiative through the Mailman School of Public Health at Columbia University. ICAP coordinates diverse initiatives for combating the HIV/AIDS epidemic in impoverished environments. Dr. El-Sadr is also founding Director of the Center for Infectious Disease Epidemiologic Research (CIDER) and Professor of Clinical Medicine and Epidemiology at the Mailman School. Dr. El-Sadr is Chief of the Division of Infectious Diseases at Harlem Hospital Center.

www.mailman.hs.columbia.edu
www.columbia-icap.org

Max Essex

Dr. Essex is Chair of the AIDS Initiative and is the Lasker Professor of Health Sciences at the Harvard School of Public Health. He also is Chair of the Botswana–Harvard Partnership for HIV Research and Education. Dr. Essex was among the first researchers to describe the transmission mechanisms of HIV, calling particular attention to the dangers of contaminated blood transfusions. His later research into the molecular identity and genetic variations of the virus has been critical to the development of HIV diagnostic tests and vaccine research.

www.aids.harvard.edu

Paul Farmer

Dr. Farmer is Presley Professor and co-Director of the Program in Infectious Disease and Social Change in the Department of Social Medicine at Harvard Medical School; Associate Chief of the Division of Social Medicine and Health Inequalities at Brigham and Women's Hospital in Boston, Massachusetts; and a co-founder of Partners In Health, an international organization that provides free direct health care services and undertakes research and advocacy activities on behalf of those who are sick and living in poverty. He is well known for helping create innovative community-based approaches to treating HIV/AIDS and TB in resource-poor settings, particularly in Haiti.

www.pih.org

Anthony Fauci

Dr. Fauci is one of the longest-serving U.S. government officials helping to oversee HIV/AIDS research and one of the first scientists to begin studying HIV. In 1984, he became Director of the National Institute of Allergy and Infectious Diseases at the National Institutes of Health, which conducts extensive research to prevent, diagnose and treat infectious diseases, including HIV/AIDS. He serves as one of the key advisors to the White House and Department of Health and Human Services on global AIDS issues. Dr. Fauci has made numerous contributions to basic and clinical research in the field of immune-mediated illnesses.

www.niaid.nih.gov

Peter Figueroa

Dr. Figueroa is the Chief of Epidemiology and HIV/AIDS, National HIV/STI program in Jamaica. He is a leader in HIV/AIDS care, practices and treatment and is committed to making HIV/AIDS care available to all. He also serves on the Executive Committee as Vice-Chairman of the National AIDS Committee in Jamaica.

www.moh.gov.jm
www.nacjamaica.com

Raoul Fransen

Fransen of the Netherlands has been involved in a wide range of programs to support young people with HIV/AIDS since he was diagnosed with HIV at the age of 15. He co-founded Young Positives, an international network of young people living with HIV/AIDS. Fransen is now a policy advisor at the International Civil Society Support and coordinates the Roundtable Process on HIV treatment.

www.icssupport.org/index.html

Robert Gallo

Dr. Gallo is Director of the Institute of Human Virology and Division of Basic Science at the University of Maryland Biotechnology Institute. In the early 1980's he discovered the human immunodeficiency virus that causes AIDS, a distinction he shares with Luc Montagnier of France, who also identified the same virus. Research by Dr. Gallo and his team also led to the development of the HIV blood test. For a time, there was great controversy about whether Dr. Gallo stole the virus from Dr. Montagnier. Eventually U.S. and French health authorities agreed that both men should share the credit for discovery of HIV. In 2002, Dr. Gallo and Dr. Montagnier announced their partnership in the Program for International Viral Collaboration, an effort to advance global HIV/AIDS vaccine research.

www.umbi.umd.edu

Bill & Melinda Gates

Bill and Melinda Gates founded the Bill & Melinda Gates Foundation in 2000 in the "belief that every life has equal value." The Foundation has committed billions of dollars towards improving global health overall, especially in the fields of HIV/AIDS & TB, infectious diseases, and reproductive and child health. It is committed to slowing the global spread of HIV and supports the development of vaccines and other tools and strategies with the potential to prevent tens of millions of infections and deaths. The Gates Foundation also funds comprehensive initiatives that include both prevention and treatment. It currently supports work in over one hundred countries.

www.gatesfoundation.org

Helene Gayle

Dr. Gayle is the President and Chief Executive Officer of CARE, a humanitarian organization fighting global poverty. Prior to joining CARE, Dr. Gayle directed the HIV, TB and Reproductive Health Program at the Bill & Melinda Gates Foundation. She has served as president of the International AIDS Society and co-chairs the Global HIV Prevention Working Group, an international panel of HIV/AIDS experts convened by the Gates and Kaiser Family Foundations. Dr. Gayle earlier served as the Director of the National Center for HIV, STD and TB Prevention at the U.S. Centers for Disease Control and Prevention.

www.care.org
www.gatesfoundation.org

Elizabeth Glaser

Glaser was co-founder and Director of the Pediatric AIDS Foundation until her death in 1994. Glaser became an activist after she discovered she had received a contaminated blood transfusion in 1981 and had passed the virus on to her two children. After the death of her daughter due to HIV and frustrated by the lack of pediatric HIV/AIDS research, Glaser established the Foundation in 1988 to promote research and prevention of mother-to-child HIV transmission. The Foundation, which officially became the Elizabeth Glaser Pediatric AIDS Foundation after her death, is a leader in the effort to treat and prevent HIV/AIDS among children in developing countries.

www.pedaids.org

Danny Glover

Glover is an American actor, AIDS activist and serves on the Board of Directors of the Black AIDS Institute. Since 1998, he has served as a Goodwill Ambassador for the United Nations Development Program. In that role, he has spent time in Africa and the Caribbean, focusing his attention on young people with HIV/AIDS. Glover also supports the TransAfrica Forum, a U.S.-based organization addressing AIDS and other issues affecting Africa.

www.undp.org
www.blackaids.org

Geeta Rao Gupta

Dr. Rao Gupta is President of the International Center for Research on Women (ICRW), a Washington, D.C. based organization that undertakes policy-oriented research, technical assistance, and advocacy. The organization's focus is on women's economic roles, health and nutrition, the environment and natural resources, adolescent sexual health and women's rights. Dr. Rao Gupta has over 20 years experience in research and program development, particularly in the area of women's health, and is an international expert on women and HIV/AIDS.

www.icrw.org

Yusuf Hamied

Dr. Hamied is chairman and Managing Director of Cipla, an Indian pharmaceutical company. In 2001, Cipla announced its plans to sell generic AIDS combination therapies at vastly discounted prices, igniting widespread criticism from other pharmaceutical companies. The combination therapies consist of multiple antiretroviral medications combined into a single pill. Dr. Hamied announced that Cipla would sell these drugs for approximately US$350 per patient per year, compared to the previous price of over US$10,000 per patient per year.

www.cipla.com

David Ho

Dr. Ho is the Chief Executive Officer of the Aaron Diamond AIDS Research Center in New York City and was named *Time* magazine's "Man of the Year" in 1996 for his groundbreaking AIDS research. As a medical resident in Los Angeles during the early 1980s, he saw some of the earliest cases of AIDS. Dr. Ho's subsequent research on HIV/AIDS led to the development of "AIDS cocktails," which consist of combinations of antiretroviral therapies. Dr. Ho's work includes the China AIDS Initiative, which is coordinated by the ADARC, and teams with partners to reduce the impact of HIV/AIDS in China.

www.adarc.org
www.chinaaidsinitiative.org

Earvin "Magic" Johnson

Johnson, the former U.S. basketball star, announced in 1991 that he was HIV-positive. Since then, he has been involved in raising awareness about prevention and safe-sex practices. Johnson serves as the chairman of the Magic Johnson Foundation (MJF) which supports organizations that provide HIV/AIDS prevention and health care education to the black community and other minority communities. In 2006, MJF and Abbott, the pharmaceutical company, created the "I Stand with Magic" campaign aimed at mobilizing these communities around education and prevention.

www.magicjohnson.org
www.istandwithmagic.com

Nkosi Johnson

Nkosi was a young South African whose bravery and suffering drew renewed international attention to the HIV/AIDS crisis. Nkosi was born HIV-positive and died of an AIDS-related illness in 2001 when he was just 13. A year earlier, Nkosi spoke at the International AIDS Conference in Durban telling a global audience, "Care for us and accept us, we are all human beings." He championed many causes during his short life, including human rights and providing care and shelter for people living with HIV/AIDS.

www.nkosi.iafrica.com

Milly Katana

Katana is Senior Manager for the International HIV/AIDS Alliance at Uganda's country office. She was diagnosed with HIV in 1995 and immediately became one of Africa's leading activists. Katana was the first HIV-positive person to sit on the Board of the Global Fund to Fight AIDS, Tuberculosis and Malaria. She also co-founded the Pan African Treatment Access Movement, which is dedicated to getting drug treatment to all in need.

www.gatag.org/pantam.php
www.aidsalliance.org

Michel Kazatchkine

Dr. Kazatchkine of France was named Executive Director of The Global Fund to Fight AIDS, Tuberculosis and Malaria in early 2007. He has worked in the field of HIV/AIDS for two decades, as a doctor, researcher, policymaker and diplomat. Dr. Kazatchkine opened a clinic in Paris specializing in HIV/AIDS in 1985 and since then has held several senior positions including director of the French National Agency for AIDS Research and France's global HIV/AIDS and communicable diseases ambassador. Dr. Kazatchkine has worked closely with international organizations in the fields of health and development and served on advisory groups to the World Health Organization and several other international bodies. Prior to being named Executive Director, he held other leadership positions with the Global Fund.

www.theglobalfund.org/en/media_center/press/pr_070208.asp

Jim Yong Kim

In July, 2009 Dr. Kim will become President of Dartmouth College in Hanover, New Hampshire. Currently, he is Chair of the Department of Global Health and Social Medicine at Harvard Medical School, Director of the Xavier Bagnoud Center for Human Rights at the Harvard School of Public Health and Chief of the Division of Global Health Equity at Brigham and Women's Hospital. Dr. Kim previously served as Director of the World Health Organization's Department of HIV/AIDS where he helped create the 3x5 Initiative. He is a co-founder with Dr. Paul Farmer of Partners in Health, a non-profit organization operating in many of the world's poorest regions.

http://ghsm.hms.harvard.edu
www.dartmouth.edu

Allyson Leacock

Leacock, Ph.D., is the Executive Director of the Caribbean Broadcast Media Partnership Against HIV/AIDS (CBMP). CBMP unites more than 60 top broadcasters from 24 countries in the region's first coordinated media response to HIV/AIDS by sharing information and resources among broadcasters that significantly expands related programming and public education activities across the Caribbean. Leacock also serves on the Board of Directors of the Global Media AIDS Initiative (GMAI).

www.cbmphiv.org
www.thegmai.org

Stephen Lewis

Lewis has long been involved in the global fight against AIDS and is recognized as an especially articulate and passionate speaker. He is currently co-director of AIDS-Free World, a new international advocacy organization. Lewis holds positions at McMaster University in Ontario and the Mailman School of Public Health at Columbia University in New York. He serves on the boards of the Stephen Lewis Foundation and the International AIDS Vaccine Initiative. He was UN Special Envoy for HIV/AIDS in Africa from 2001 through 2006.

www.aids-freeworld.org
www.stephenlewisfoundation.org

Graça Machel

Machel is a former first lady and former Minister of Education in Mozambique whose global activism involves issues ranging from HIV/AIDS to education to land mines. She is a member of the Board of the United Nations Foundation and is Chair of the Foundation for Community Development (FDC), an organization established to alleviate poverty in Mozambique. With her current husband, former president Nelson Mandela of South Africa, Machel continues to advance human rights in Africa through economic and community development.

www.unfoundation.org
www.fdc.org.mz/engl/home.html

Mercy Makhalamele

Makhalamele became the first black woman in South Africa to publicly declare her HIV-positive status and campaign to reduce the stigma associated with the disease. She is a founding member of South Africa's National Association of People Living with HIV/AIDS and Treatment Action Campaign. She received the Kaiser Family Foundation's 2004 Nelson Mandela Award for Health and Human Rights, for her efforts to combat stigma and advocate for increased access to treatment, care and support for people living with HIV/AIDS. Makhalemele serves on the National Advisory Board of South Africa's national HIV prevention program for young people, loveLife and founded Mercy AIDS Foundation which helps women who are HIV-positive become economically empowered.

www.lovelife.org.za
www.kff.org/southafrica

Nelson Mandela

Mandela has become a strong voice in the global fight against HIV/AIDS after earlier being criticized for not urgently responding to the epidemic while President of South Africa. He created the 46664 Global Campaign to create more awareness, advocate for care and treatment and raise needed funds. In 2004, at the International AIDS Conference in Bangkok, he told delegates, "As former prisoner 46664, there is a special place in my heart for all those that are denied access to their basic human rights." He also has encouraged the public health community to pay more attention to the links between AIDS and tuberculosis.

www.46664.com
www.nelsonmandela.org

Jonathan Mann

Mann was an inspirational and influential figure in the fight against global HIV/AIDS. The long-time researcher and human rights champion died in a plane crash in 1998, on his way to an AIDS conference. In 1986, he helped establish and lead the World Health Organization's Global Program on AIDS. In that role, he established human rights as central to the WHO's HIV/AIDS strategy and persuaded health ministers from dozens of countries to do the same. In 1990, he founded Doctors of the World-USA to mobilize the health sector around issues of access to care and human rights.

www.doctorsoftheworld.org

Thabo Mbeki

Mbeki, former President of South Africa, was a controversial and polarizing figure in the fight against HIV/AIDS during his two terms in office. In 1999, Mbeki declared that HIV alone cannot lead to AIDS and he publicly questioned whether antiretroviral therapies for HIV are effective. By 2002, his government committed to intensifying prevention and treatment efforts. President Mbeki's pledge rested on the premise that HIV does cause AIDS.

www.southafrica.info
www.doh.gov.za/aids

Craig McClure

McClure became the Executive Director of the International AIDS Society in 2004. IAS is the world's leading independent association of HIV professionals and organizes the International AIDS Conferences. McClure has worked in HIV policy, advocacy and education for various organizations including the World Health Organization and the International AIDS Vaccine Initiative.

www.iasociety.org

Luc Montagnier

In 1983, Dr. Montagnier of the Pasteur Institute in France discovered the virus that causes AIDS, the human immunodeficiency virus. It is a distinction he shares with Dr. Robert Gallo of the U.S. In 2008, Dr. Montagnier was awarded the Nobel Prize in Physiology or Medicine for the discovery of HIV. His team also identified HIV-2, the virus that is responsible for many HIV infections in West Africa. Dr. Montagnier is currently president of the World Foundation for AIDS Research and Prevention. In 2002, Dr. Montagnier and Dr. Gallo announced their partnership in the Program for International Viral Collaboration, an effort to advance global HIV/AIDS vaccine research.

www.pasteur.fr/english.html
http://nobelprize.org

Julio Montaner

Dr. Montaner has been a member of the International AIDS Society since 1988 and is currently President of IAS. He also is Director of Clinical Activities at the British Columbia Centre for Excellence in HIV/AIDS and is a founding Co-Director of the Canadian HIV Trials Network. Dr. Montaner has authored over 300 scientific publications on HIV/AIDS.

www.iasociety.org

Dali Mpofu

Mpofu is the Group Chief Executive Officer of the South African Broadcasting Corporation (SABC) and Chairman of the Board of Directors of the Global Media AIDS Initiative (GMAI). The mission of the GMAI is to leverage the power of media to help prevent the spread of HIV and reduce the stigma facing those living with the disease. It was launched by top media executives in 2004 at an historic meeting convened by former UN Secretary-General Kofi Annan. SABC participates in the Africa Broadcast Media Partnership which is a pan-African coalition of broadcast companies for the purpose of reinvigorating and increasing the effectiveness of broadcast media's contribution to the fight against HIV/AIDS.

www.thegmai.org
www.broadcasthivafrica.org

Peter Mugyenyi

Dr. Mugyenyi is the Director of the Joint Clinical Research Centre, in Kampala, Uganda, and chairman of both the Ugandan AIDS task force and the African Dialogue on AIDS. In 1996, he was one of the first African physicians to insist that his patients were capable of taking the complicated regimen of AIDS medications. By 2001, Dr. Mugyenyi and his colleagues successfully pressured U.S. and European pharmaceutical manufacturers to discount AIDS medications for many poor nations. Currently, Dr. Mugyenyi treats over 5,000 AIDS patients a year through his network of clinics in Uganda.

www.jcrc.co.ug

Yoweri Museveni

Ugandan President Museveni has led a campaign against HIV/AIDS in his country, which is often held up as a model for the rest of Africa. Soon after assuming the presidency in 1986, Museveni became the first African leader to speak openly about the epidemic. His government's campaign is based on ABC: Abstinence, Be faithful, Condom use. There is much discussion over what has been the main driver of Uganda's success. Museveni is sometimes criticized by those who believe he minimizes the importance of condoms in the ABC program.

www.statehouse.go.ug
www.health.go.ug

Nikolay Nedzelskiy

Nedzelskiy is an advocate for Russians living with HIV/AIDS. He was among the first activists to step forward in the early 1990s. Nedzelskiy was the Director of INFO-Plus Center in Moscow which was a clearinghouse for information about HIV/AIDS. Nedzelskiy is now an independent expert on the subject of AIDS in Russia.

www.aids.ru

Peter Piot

Dr. Piot was appointed the first Executive Director of UNAIDS in 1995 and held that position until early 2009. He has since been named Director of the newly created Institute for Global Health at Imperial College London. Dr. Piot has long worked in the public health arena. In 1976, he co-discovered the Ebola virus in Zaire. In the 1980s, Dr. Piot contributed to an understanding of the epidemic's spread in Africa.

www3.imperial.ac.uk

Vadim Pokrovskiy

Dr. Pokrovskiy is the Director of Russia's Federal AIDS Center. He has warned that the real number of those infected with HIV in Russia is higher than official statistics indicate. Dr. Pokrovskiy has encouraged the government to develop a more coordinated response to the epidemic.

www.pcr.ru

Gracia Violeta Ross

Ross is a young Bolivian who became an activist after being raped and infected with HIV. Today she is the National Chair of the Bolivian Network of People Living with HIV/AIDS (REDBOL), as well as a member of the International Community of Women Living with HIV/AIDS. In her public appearances, she encourages women to become more involved in political, cultural and gender issues. In 2006, she served as co-chair of the Community Program Committee for the XVI International AIDS Conference in Toronto.

www.icw.org

Jorge Saavedra

Dr. Saavedra has led the National HIV/AIDS Program in Mexico (Censida) since 2003 and launched the program aimed at universal access to AIDS medications. He previously served as a board member of the Global Fund. In 2000, Dr. Saavedra founded the first Ambulatory Care AIDS Clinic in Mexico City, which has become Mexico's largest such care center. As the first openly gay person to hold a senior position in the Mexican government, Dr. Saavedra has advocated for the rights of gay people who are HIV-positive.

www.salud.gob.mx/conasida

Jeffrey Sachs

Professor Sachs, currently Director of the Earth Institute at Columbia University in New York, is one of the world's foremost economists. He is also Special Advisor to United Nations Secretary-General Ban Ki-moon. He is known for his work with governments and international agencies to promote poverty reduction, disease control and debt reduction for poor countries. Professor Sachs warns that AIDS is "exploding. Its consequences will make the world quake." Previously, he spent 20 years at Harvard University.

www.earth.columbia.edu

David Serwadda

Dr. Serwadda is the director of the Institute of Public Health at Makerere University in Kampala, Uganda. He also serves on the steering committee of The Global HIV Prevention Working Group, an international advisory panel of nearly 50 public health experts and scientists involved in HIV/AIDS. Dr. Serwadda is the Ugandan principal investigator on the ongoing NIH-funded "Trial of Male Circumcision for HIV Prevention". He is an expert in the fields of epidemiology, evaluation of health interventions and disease surveillance, and is a leading authority on the AIDS epidemic in Africa.

www.globalhivprevention.org
www.iph.ac.ug

Michel Sidibé

Sidibé was appointed Executive Director of UNAIDS in early 2009. In that capacity, he coordinates the HIV/AIDS efforts of ten co-sponsoring organizations. Sidibé, a native of Mali, has been involved in global health and development issues for over a quarter of a century. He joined UNAIDS in 2001 and was the organization's Deputy Executive Director of Programmes before being named Executive Director.

www.unaids.org

Suniti Solomon

Dr. Solomon and her colleagues saw the first cases of HIV/AIDS in India in 1986. In response to the disease, Dr. Solomon created the first voluntary testing and counseling center and an AIDS research group in Madras, India. In 1993, she founded the Y.R. Gaitonde Centre for AIDS Research and Education. YRGcare is a non-profit center that offers HIV and sex education, voluntary counseling and testing services, and care for people living with HIV. It also conducts medical and behavioral research. She currently serves as President of the AIDS Society in India and is a member of the advisory board of the International AIDS Vaccine Initiative-India.

www.yrgcare.org
www.iavi.org.in

Luis Soto-Ramirez

Dr. Soto-Ramirez is co-chair of the International AIDS Conference in Mexico City. He is head of the Molecular Virology Unit at the Department of Infectious Diseases at the Instituto Nacional de Ciencias Medicas y Nutricion Salvador Zubiran. For several years, Dr. Soto-Ramirez has been a member of the International AIDS Society's Governing Council and is the regional IAS representative for Latin America and the Caribbean.

www.iasociety.org

Paulo Teixeira

Dr. Teixeira previously was Director of the World Health Organization's (WHO) HIV/AIDS Department. He gained worldwide recognition for his work on HIV/AIDS in Brazil and Latin America. Dr. Teixeira was director of the National STD/AIDS Program at the Ministry of Health in Brazil, where he created the first national AIDS program in 1983. Dr. Teixeira pioneered Brazil's program for free, universal distribution of ARVs, which has become a model for other developing countries dealing with HIV/AIDS. He is now involved in environmental issues.

www.who.int/hiv

Mechai Viravaidya

Mechai is a Senator in the Parliament of Thailand and is affectionately known as the "Condom King" because of his strong and public support for the use of condoms as a way of preventing HIV transmission. Senator Mechai is the founder and chairman of the Population and Community Development Association, one of Thailand's largest private, non-profit development organizations. He was appointed Ambassador for UNAIDS in 1999 and has received numerous awards. In 2007, he received the Bill & Melinda Gates Foundation's Gates Award for his pioneering work in family planning and HIV/AIDS prevention.

www.thaigov.go.th/eng
www.sli.unimelb.edu.au/pda

Ryan White

American Ryan White became an unwitting international symbol of HIV/AIDS. White was born in 1971 with hemophilia and became infected with HIV in 1984 after receiving contaminated blood during a transfusion. He was shunned by his community but embraced by celebrities such as Elton John. White died in 1990 and soon after then-President George Bush enacted landmark legislation named the Ryan White Comprehensive AIDS Resource Emergency Act which provides care, treatment and services to people with HIV/AIDS in the United States.

www.careactdatasupport.hrsa.gov

Phill Wilson

Wilson is founder and the Executive Director of the Black AIDS Institute, based in Los Angeles, California. It is the only black HIV/AIDS think tank in the United States. Wilson has said the goal of the Institute is to "reduce the HIV health disparities between people of African descent and other racial ethnic groups by engaging black folks in efforts to combat HIV/AIDS." The organization's motto is, "Our people, Our problem, Our solution." Wilson also helped create the National Black Lesbian and Gay Leadership Forum and the National Task Force on AIDS Prevention.

www.blackaids.org

Wan Yanhai

Dr. Wan is China's most prominent AIDS activist. He now serves as the director of China's principal AIDS-awareness group, the Beijing Aizhixing Institute of Health Education. Dr. Wan established the first telephone hotline for HIV/AIDS information and went on to create a widely used website. His activism led to his dismissal from China's Health Ministry. In recent years, he has twice been detained by the government. In 2005, Dr. Wan organized a landmark conference between Shanghai University Law School and Human Rights Watch, an international watchdog organization, to discuss how to tackle the growing threat of HIV/AIDS in China.

www.aizhi.org/en/

Debrework Zewdie

Dr. Zewdie is the Director of the Global HIV/AIDS Program for the World Bank. Her career has been spent working on HIV/AIDS with a particular emphasis on Africa. Prior to her current position, Dr. Zewdie managed the World Bank's AIDS Campaign Team for Africa (ACTafrica). Before joining the World Bank in 1994, she managed AIDS programs in 16 African countries for Family Health International.

www.worldbank.org/aids

Winstone Zulu

Zulu is an AIDS activist in Zambia who publicly declared his HIV-positive status along with a later diagnosis of tuberculosis. Zulu has lost four brothers and sisters to AIDS and TB and, in his work, emphasizes the close link between the two. Zulu actively campaigns for more effective and accessible drugs. He told a reporter, "For me and my family, HIV and TB have always been seen together conspiring and collaborating to steal away our health."

www.winstonezulu.com

TUBERCULOSIS (TB)

Tuberculosis (TB) is a significant health problem in both industrialized and developing countries. Approximately, one-third of the world's population is currently infected with the bacterium that causes TB and 5% to 10% of those infected will become sick or infectious at some point during their lifetime. The World Health Organization (WHO) estimates that there are more than 14 million people currently living with TB worldwide.

Tuberculosis is a bacterial infection caused by *Mycobacterium tuberculosis*. The disease usually affects the lungs (referred to as pulmonary TB), but can spread to other parts of the body (referred to as extra-pulmonary TB) in serious cases.

Most people who become infected with TB are able to fight the bacteria and stop them from multiplying, keeping the pathogen dormant–this is called "latent TB" infection. People with latent TB infection have no symptoms, don't feel sick, and cannot spread TB to others. However, the TB bacteria remain alive in the bodies of those with latent TB and can become "active TB" disease at a later point in time if treatment is not received. People with active TB can and often do exhibit TB symptoms such as coughing, fatigue, chills, and fever. In addition, they can also be infectious and can pass the TB pathogen onto others by coughing, sneezing, or spitting.

Although a health concern worldwide, TB is especially problematic in developing countries, where poverty, overcrowding and other diseases and viruses, particularly HIV, help facilitate its spread. About 85% of all new TB patients are in Africa, Southeast Asia and the Western Pacific. Even though more than a third of all new TB cases occur in Southeast Asia, the estimated incidence (new cases) per capita is highest in sub-Saharan Africa. In addition, TB-related deaths and mortality rates per capita are highest in sub-Saharan Africa.

HIV disease has significantly fueled the TB epidemic in the developing world. In fact, researchers estimate that the HIV epidemic is the principal reason for the resurgence of TB over the past decade; the two are so closely connected that the terms "co-epidemic" or "dual epidemic" often are used to describe their synergistic relationship. When someone is infected with HIV, and his or her immune system becomes compromised, there is an increased likelihood of acquiring new TB infection. HIV also can facilitate both the progression of latent TB infection to active disease and the relapse of the disease in previously treated patients. TB is one of the leading causes of death in HIV-positive people. The WHO estimates that almost one-third of all people living with HIV/AIDS are also infected with TB. Because the prevalence of HIV is highest in sub-Saharan Africa, the HIV-TB co-infection epidemic is also most severe in this region of the world.

Although responsible for considerable morbidity and mortality worldwide, TB can be successfully prevented, treated and controlled, even if someone is HIV-positive. The internationally recommended strategy for TB control is DOTS, or "directly observed therapy short-course" which aims to decrease TB-related morbidity, prevent TB deaths, and decrease TB transmission. Under DOTS, once patients are diagnosed with infectious TB, health workers or trained volunteers supervise them as they take the full course of medications. DOTS is cost-effective and can cure most TB patients. The WHO currently estimates that 93% of the world's population lives in countries where DOTS is in place and that the worldwide success rate of the strategy is 85%.

Expanding access to DOTS and ensuring patient adherence to therapy is critical because if medications are not taken as prescribed, the mycobacteria responsible for TB can become resistant to treatment. TB that is resistant to at least two of the most effective first-line therapies is called multi-drug resistant TB (MDR-TB). MDR-TB is more serious than non-resistant TB and can be deadly, especially in people also infected with HIV. Although treatment for MDR-TB does exist in the form of second line therapies, it is significantly more expensive, takes much longer, and results in more severe side effects than treatment for TB that is not drug-resistant. Rates of MDR-TB are high in several regions around the world, including in the former Soviet republics. In recent years, a new and much more virulent type of MDR-TB has emerged called extensively drug resistant TB or XDR-TB. In addition to not being

responsive to first-line TB drugs, patients with XDR-TB are also resistant to two of the second-line TB therapies, making the condition extremely difficult, if not impossible, to treat. Although XDR-TB remains relatively rare as compared to non-drug-resistant TB or MDR-TB, it presents an increasing global threat to TB control efforts.

With the rise of HIV/TB co-infection and growth of drug-resistant strains of TB, international recognition of the seriousness of TB has grown, with various organizations and donor agencies attempting to curb the spread of the disease. Two institutions that have made important strides in alleviating the worldwide burden of TB are the Stop TB Partnership and The Global Fund to Fight AIDS, Tuberculosis and Malaria. The Stop TB Partnership is a network of 500 public and private organizations including international agencies, governmental and non-governmental organizations, research institutions, and donor organizations that aim to strengthen social and political support for stopping the spread of TB. The Stop TB Partnership focuses on DOTS expansion, reducing the impact of HIV-TB co-infection, the prevention of MDR-TB, and the development of new drugs, vaccines, and diagnostic procedures. The Global Fund is an independent grant-making organization and a major financier for TB control in developing countries. Together the Global Fund and the Stop TB Initiative have helped coordinate global TB control efforts and ensure that they remain a priority in the international arena.

PEPFAR, the President's Emergency Plan for AIDS Relief, a major U.S. Initiative created in 2003, also provides significant funding for global TB efforts directly to countries and through contributions to the Global Fund. The Bill & Melinda Gates Foundation, a private, philanthropic organization, also has established major global TB initiatives, supporting efforts to develop rapid TB diagnostics, more effective TB treatments, TB vaccines and the acceleration of access to new TB tools.

ADDITIONAL RESOURCES

Kaiser Family Foundation. *Global Health Reporting* website, *TB FAQs,* http://www.globalhealthreporting.org/tb.asp?id=69

Bill & Melinda Gates Foundation. http://www.gatesfoundation.org/GlobalHealth/Pri_Diseases/Tuberculosis/

U.S. Department of Health and Human Services (DHHS) Centers for Disease Control and Prevention, National Center for HIV, STD, and TB Prevention. *Questions and Answers about TB* (2007), http://www.cdc.gov/tb/faqs/default.htm

The Global Fund to Fight AIDS, Tuberculosis and Malaria. *Fighting Tuberculosis,* http://www.theglobalfund.org/en/about/tuberculosis/

World Health Organization. *Global tuberculosis control – surveillance, planning, financing* (2008), http://www.who.int/tb/publications/global_report/en/index.html

World Health Organization. *Tuberculosis Fact Sheet* (March 2007), http://www.who.int/mediacentre/factsheets/fs104/en/

Stop TB. *About the Stop TB Partnership*, http://www.stoptb.org/stop_tb_initiative/

PEPFAR. http://www.pepfar.gov/pepfar/press/81964.htm

TUBERCULOSIS (TB) GLOSSARY

Active TB Disease: An illness in which TB bacteria are multiplying and attacking different parts of the body. The symptoms of active TB disease include weakness, weight loss, fever, no appetite, chills, and sweating at night. Other symptoms of active TB disease depend on where in the body the bacteria are growing. If active TB disease is in the lungs (pulmonary TB), the symptoms may include a bad cough, pain in the chest, and coughing up blood. A person with active TB disease may be infectious and spread TB to others.

BCG: A vaccine for TB named after the French scientists who developed it, Calmette and Guérin. BCG is not widely used in the United States, but it is often given to infants and small children in other countries where TB is common.

Chest X-Ray: A picture of the inside of your chest. A chest x-ray is made by exposing a film to x-rays that pass through your chest. A doctor can look at this film to see whether TB bacteria have damaged your lungs.

*__Co-infection:__ A term used to describe infection with more than one disease, and often used to describe infection with both TB and HIV.

Contact: A person who has spent time with a person with infectious TB.

Culture: A test to see whether there are TB bacteria in your phlegm or other body fluids. This test can take 2 to 4 weeks in most laboratories.

Directly Observed Therapy Short-Course (DOTS): A way of helping patients take their medicine for TB. If you get DOTS, you will meet with a health care worker every day or several times a week. You will meet at a place you both agree on. This can be the TB clinic, your home or work, or any other convenient location. You will take your medicine while the health care worker watches.

*__Endemic:__ The constant presence of a disease or infectious agent within a given geographic area or population group; can also refer to the usual prevalence of a given disease within such area or group.

*__Epidemic:__ The occurrence of more cases of disease than expected in a given area or among a specific group of people over a particular period of time

Extensively drug-resistant TB (XDR-TB): XDR-TB is a rare type of TB disease that is resistant to nearly all medicines used to treat TB.

Extrapulmonary TB: Active TB disease in any part of the body other than the lungs (for example, the kidney, spine, brain, or lymph nodes).

HIV Infection: Infection with the human immunodeficiency virus, the virus that causes AIDS (acquired immunodeficiency syndrome). A person with both latent TB infection and HIV infection is at very high risk for active TB disease.

*__Immune system:__ The body's system of defense against foreign organisms such as bacteria, viruses or fungi.

INH or Isoniazid: A medicine used to prevent active TB disease in people who have latent TB infection. INH is also one of the four medicines often used to treat active TB disease.

Latent TB Infection: A condition in which TB bacteria are alive but inactive in the body. People with latent TB infection have no symptoms, don't feel sick, can't spread TB to others, and usually have a positive skin test reaction. But they may develop active TB disease if they do not receive treatment for latent TB infection.

*Multidrug-Resistant TB (MDR-TB):** A strain of tuberculosis that is resistant to two or more anti-TB drugs. MDR-TB usually arises when people take only enough medication to feel better, but not the full amount prescribed by a physician. The weaker bacteria are killed, but the stronger bacteria survive and reproduce. These stronger bacteria, when fully grown and causing sickness again, will not be curable with the same treatment and require larger doses of the drug or an entirely new, stronger drug. MDR-TB is a large problem in developing countries, where continual supervision of treatment is not always possible.

*Mycobacterium tuberculosis:** Tuberculosis is a bacterial infection caused by *Mycobacterium tuberculosis*. The disease usually affects the lungs but can spread to other parts of the body in serious cases. An individual can become infected with TB when another person who has active TB coughs, sneezes or spits. Not all people who become infected with TB develop symptoms. Those who do not become ill are referred to as having latent TB and cannot spread the disease to others.

Negative: Usually refers to a test result. If you have a negative TB skin test reaction, you probably do not have TB infection.

Positive: Usually refers to a test result. If you have a positive TB skin test reaction, you probably have TB infection.

Pulmonary TB: Active TB disease that occurs in the lungs, usually producing a cough that lasts 3 weeks or longer. Most active TB disease is pulmonary.

QuantiFERON-TB® Gold (QFT): A blood test used to find out if you are infected with TB bacteria. The QFT measures the response to TB proteins when they are mixed with a small amount of blood.

Resistant Bacteria: Bacteria that can no longer be killed by a certain medicine.

Smear: A test to see whether there are TB bacteria in your phlegm. To do this test, lab workers smear the phlegm on a glass slide, stain the slide with a special stain, and look for any TB bacteria on the slide. This test usually takes one day to get the results.

Sputum: Phlegm coughed up from deep inside the lungs. Sputum is examined for TB bacteria using a smear; part of the sputum can also be used to do a culture.

TB Skin Test: A test that is often used to detect latent TB infection. A liquid called tuberculin is injected under the skin on the lower part of your arm. If you have a positive reaction to this test, you probably have latent TB infection.

Tuberculin or PPD: A liquid that is injected under the skin on the lower part of your arm during a TB skin test. If you have latent TB infection, you will probably have a positive reaction to the tuberculin.

REFERENCES

U.S. Department of Health and Human Services (DHHS). Centers for Disease Control and Prevention. *Glossary of Terms Related to TB* (2007), http://www.cdc.gov/tb/faqs/qa_glossary.htm

Definition provided by the Kaiser Family Foundation.

MALARIA

Malaria is a major cause of sickness and death worldwide, resulting in 500 million infections and at least 1 million deaths each year. Over 40% of the world's population lives in areas where they are at risk of contracting malaria. Caused by parasites called *Plasmodium* that are transmitted to humans via mosquito bites, malaria can render an individual extremely ill and, in some cases, may prove to be fatal. Symptoms of infection may include fever, chills, headache, muscle pain, fatigue, nausea and vomiting and usually appear between 10 to 15 days after a person is bitten by an infected mosquito.

Although the disease occurs in many parts of the world, it poses the greatest problem in sub-Saharan Africa, where approximately 90% of malarial deaths occur each year, mostly in children under five years of age. This region of the world is particularly hard-hit by malaria due to several factors: sub-Saharan Africa is home to a species of mosquito that can transmit the malaria parasite very efficiently; most of the region's cases are caused by the *Plasmodium falciparum* parasite, which causes the most severe and life-threatening form of disease; poverty and limited health infrastructure make the mounting of effective prevention and treatment efforts difficult; and drug-resistant strains of the parasite have also emerged in the region, acting as another barrier to malaria control.

In sub-Saharan Africa, the situation is also worsened by the presence of other diseases, especially HIV/AIDS. Both HIV/AIDS and malaria affect similar geographic areas and risk groups, causing dual public health crises. Increasing knowledge regarding the interactions between HIV/AIDS and malaria suggests that HIV-positive individuals may be more susceptible to malaria illness because of their weakened immune systems and may be less likely to respond to standard treatments for malaria. As well, there is evidence to suggest that severe malarial episodes can temporarily lead to an upsurge in HIV viral load, thereby leading to increased morbidity in individuals co-infected with HIV and malaria.

Certain populations are more vulnerable to malaria, particularly pregnant women and children. Women's immune systems are weaker during pregnancy, placing them at increased risk for contracting disease. Malaria during pregnancy is very serious and can lead to severe anemia, malarial infection of the placenta, and, in some cases, maternal death. Children born to women co-infected with malaria and HIV are much more likely to face complications such as having low birth-weight and often die during infancy. Children under five years of age are also at high risk of suffering from malaria-related illness and death because they have not had a chance to build up sufficient immunity to the disease. According to the World Health Organization (WHO), in Africa one in every five child deaths is due to the effects of malaria, with one child dying approximately every 30 seconds. Those who recover from the disease may still suffer from serious conditions as a result of the infection, such as anemia, recurrent fever, blindness and brain damage.

Although causing much morbidity and mortality around the world, illness and death from malaria are largely preventable. Control of mosquitoes is the main way in which malaria transmission can be prevented. During the 1950s and 1960s, the WHO led a global effort to eradicate the mosquitoes that carry malaria. DDT (dichlorodiphenyltrichloroethane) was the main insecticide used during this time. Through the WHO's efforts, malaria was successfully eradicated from North America and Europe. Eventually, outdoor use of DDT for malaria control was discouraged by the WHO because of the insecticide's harmful effects on the environment. Currently, the WHO recommends use of DDT for malaria control through indoor spraying. The WHO also recommends the use of insecticide-treated bed nets. These nets have been shown to significantly reduce death and illness from malaria in endemic regions and are a very important malaria control strategy. Recently, a new kind of long-lasting insecticidal net has been developed which can retain the insecticidal activity of the net for several years without needing to be re-treated.

Medications for prevention and treatment of malaria are also available. A number of anti-malarial drugs exist and are currently in use, including chloroquine, sulfadoxine-pyrimethamine (SP) and amodiquine. They are known as monotherapies because each medication is generally used alone. Unfortunately, malaria parasites are developing

resistance to many of the available monotherapies. This is true in many parts of Asia and South America, and is a growing problem in Africa as well. Due to concerns over drug-resistance, the WHO now recommends that countries make available combination therapies, which combine two or more medications and are harder for parasites to develop resistance. As a result, since 2001, many countries have changed their treatment policy and have begun endorsing combination treatment in place of monotherapies. However, combination therapy is still not available in many countries where existing drugs are ineffective. The WHO, together with other international organizations is working to support initiatives to expand access to effective combination therapies. In 2004, the WHO revised its malaria treatment recommendation to include artemisinin-based combination therapy (ACT). The compound, found naturally in a Chinese herb, has been used to treat malaria since the 1980s and is currently the most effective measure against the disease.

In 1998, the Roll Back Malaria (RBM) Partnership was created by the WHO, United Nations Children's Fund, United Nations Development Programme and the World Bank. The Partnership aims to coordinate international malaria-control activities by bringing together over 90 public and private organizations, international agencies, malaria-endemic countries and research and academic institutions. The goal of the Partnership is to cut the global burden of malaria in half by 2010. RBM has successfully raised awareness of the disease, mobilized social, political and financial support and coordinated international efforts to combat malaria.

The Global Fund to Fight AIDS, Tuberculosis and Malaria, an independent grant-making organization, is a significant source of funding for malaria-control interventions. Since its establishment in 2002, the Global Fund has become the largest financier of insecticide-treated bed nets and has committed to delivering hundreds of millions of ACT dosages to help reduce the impact of drug-resistant malaria. In 2005, U.S. President George W. Bush announced the creation of a new Presidential Malaria Initiative (PMI) and pledged to increase funding for malaria prevention and treatment by more than US$1.2 billion over five years and reduce deaths due to malaria by 50% in 15 countries. The Bill & Melinda Gates Foundation, a private, philanthropic organization, also has established major global malaria initiatives, supporting the development of safe, effective, and affordable malaria vaccines, malaria control efforts, the search for new malaria treatments, and expanded access to existing malaria control tools and to new drugs and vaccines.

ADDITIONAL RESOURCES

Kaiser Family Foundation. *Global Health Reporting* website *Malaria FAQs,* http://www.globalhealthreporting.org/malaria.asp?id=63

U.S. Department of Health and Human Services (DHHS) Centers for Disease Control and Prevention. *Malaria Facts* (2007), http://www.cdc.gov/malaria/facts.htm

Roll Back Malaria. *Brochure: Looking Forward* (2006), http://rbm.who.int/docs/rbm_brochure.pdf

World Health Organization. *Children and Malaria* (2006), http://www.rbm.who.int/cmc_upload/0/000/015/367/RBMInfosheet_6.htm

World Health Organization. *Facts on ACTs* (2006), http://www.rbm.who.int/cmc_upload/0/000/015/364/RBMInfosheet_9.htm

World Health Organization. *What is Malaria* (2006), http://www.rbm.who.int/cmc_upload/0/000/015/372/RBMInfosheet_1.htm

World Health Organization. *Malaria* (May 2007), http://www.who.int/mediacentre/factsheets/fs094/en/index.html

The Global Fund to Fight AIDS, Tuberculosis and Malaria. http://www.theglobalfund.org/en/about/malaria/default.asp

Bill & Melinda Gates Foundation. http://www.gatesfoundation.org/GlobalHealth/Pri_Diseases/Malaria/default.htm

President's Malaria Initiative (PMI). http://www.fightingmalaria.gov/

MALARIA GLOSSARY

Anopheles: The genus of mosquito that transmits malaria.

*__Antibody:__ Molecules in the body that identify and destroy foreign substances such as bacteria and viruses.

Antigen: Any substance that provides an immune response when it is introduced into the body.

Attenuated: Treated in such a way as to decrease the ability of the parasite to cause infection or disease.

Chloroquine: The mainstay of malaria treatment since 1945, but no longer effective against a growing number of strains of *P. falciparum* malaria.

*__Endemic:__ The constant presence of a disease or infectious agent within a given geographic area or population group; can also refer to the usual prevalence of a given disease within such area or group.

*__Epidemic:__ The occurrence of more cases of disease than expected in a given area or among a specific group of people over a particular period of time.

Gametocytes: Precursors of the sexual forms of the malaria parasite, which release either male or female gametes within the stomach of the mosquito.

Genus: A category of organisms.

G6PD Deficiency: An inherited abnormality that causes loss of a red blood cell enzyme. It may give a person some protection against malaria, but it also means that person cannot take the antimalarial drug primaquine. G6PD deficiency is found most commonly in people of African, Mediterranean, and Asian descent.

Hemoglobin: The oxygen-carrying part of the red blood cell.

Hypnozoite: A form of the parasite that remains inactive within the liver and can produce relapses.

*__Immune System:__ The body's system of defense against foreign organisms such as bacteria, viruses or fungi.

Immunity: The protection generated by the body's immune system in response to invasion by "foreign" invaders, including bacteria and viruses as well as parasites.

Larvae: Immature wingless forms of insects such as mosquitoes.

*__Malaria:__ A disease caused by parasites that are transmitted to humans via mosquito bites. Symptoms of infection may include fever, chills, headache, muscle pain, fatigue, nausea and vomiting. These symptoms usually appear between 9 and 14 days after a person is bitten by an infected mosquito. In severe cases, the disease can be life-threatening.

Merozoite: The form of the malaria parasite that invades human red blood cells.

Mucous Membrane: The lining of certain cavities, such as the nose and mouth and intestinal tract, that produces a protective layer of mucus.

Oocyst: A parasite stage within the mosquito, produced by the union of male and female gametes.

Parasite: An animal (or plant) that must live on or in an organism of another species, from which it draws its nourishment.

Paroxysm: An attack of a disease that is likely to recur at periodic intervals.

Plasmodium: The genus of the parasite that causes malaria. The genus includes four species that infect humans: *Plasmodium falciparum, Plasmodium vivax, Plasmodium malariae,* and *Plasmodium ovale*.

Primaquine: A drug that kills malaria parasites that lodge in the liver.

Quinine: A drug, originally extracted from tree bark, which was the only available antimalarial treatment for nearly 300 years.

Relapse: The recurrence of disease some time after it has been apparently cured.

*__Resistance:__ The ability of a pathogen to reproduce despite the presence of drugs designed to inhibit its reproduction or survival. The malaria parasite has developed strains that are resistant to drugs such as chloroquine. The *Anopheles* mosquito has developed strains that are resistant to DDT and other insecticides.

Schizont: A developmental form of the parasite that contains many merozoites.

Species: Organisms in the same genus that have similar characteristics.

Sporozoite: The infectious form of the parasite, which is injected into people by a feeding mosquito.

Strain: A genetic variant within a species.

Vector: The organism, typically an insect, that transmits an infectious agent to its alternate host, typically a vertebrate. In human malaria, the vector of the parasite are mosquitoes, the "carriers" or "hosts" are humans.

Virulent: Characterized by rapid course or severity.

REFERENCE

U.S. National Institutes of Health (NIH), National Institute of Allergy and Infectious Disease. *Malaria Glossary*, http://www.niaid.nih.gov/publications/malaria/glossary.htm

**Definition provided by the Kaiser Family Foundation*

RESOURCE LIST

AIDSinfo: The U.S. Department of Health and Human Services' comprehensive online resource on HIV/AIDS treatment, prevention and research.

www.aidsinfo.nih.gov

AIDS Vaccine Advocacy Coalition (AVAC): AVAC is a non-profit, community and consumer based organization that uses public education, policy analysis, advocacy and community mobilization to accelerate the ethical development and global delivery of AIDS vaccines and other HIV prevention options.

www.avac.org

Foundation for AIDS Research (amfAR): A nonprofit organization dedicated to supporting AIDS research, prevention, treatment and the advocacy of AIDS-related public policy.

www.amfar.org

AVERT: An international HIV/AIDS charity based in the United Kingdom dedicated to preventing HIV/AIDS worldwide. AVERT conducts education campaigns in countries with high rates of infection, particularly South Africa and India.

www.avert.org

Global Business Coalition on HIV/AIDS, Tuberculosis and Malaria (GBC): An alliance comprising over 200 international companies dedicated to combating HIV/AIDS, TB, and malaria with private sector resources.

www.businessfightsaids.org

The Global Fund to Fight AIDS, Tuberculosis and Malaria (The Global Fund): An international partnership between public and private organizations that finances programs to fight HIV/AIDS, TB and Malaria.

www.theglobalfund.org

GlobalHealthFacts.org: An online interactive resource of the Kaiser Family Foundation providing up-to-date data by country on HIV/AIDS, tuberculosis, malaria and other key health and socio-economic indicators.

www.globalhealthfacts.org

GlobalHealthReporting.org: An online resource of the Kaiser Family Foundation providing journalists and others with the latest information on HIV/AIDS, tuberculosis and malaria.

www.globalhealthreporting.org

HIV InSite: The University of California San Francisco School of Medicine's comprehensive online resource on HIV/AIDS treatment, prevention, policy and research.

www.hivinsite.org

International AIDS Society (IAS): The world's leading independent association of HIV/AIDS professionals.

www.iasociety.org

International AIDS Vaccine Initiative (IAVI): A global non-profit, public-private partnership working to accelerate the development of a vaccine to prevent HIV infection and AIDS.

www.iavi.org

International Finance Corporation Against AIDS (IFC Against AIDS): A member of the World Bank Group, the IFC Against AIDS initiative, is a program of the IFC dedicated to promoting and protecting sustainable development in regions threatened by HIV/AIDS.

www.ifc.org/ifcagainstaids

International HIV/AIDS Alliance (AIDS Alliance): A global partnership of nationally-based organizations working to support community action on AIDS in developing countries.

www.aidsalliance.org

Stop TB Partnership: An international network of public and private organizations dedicated to the elimination of tuberculosis.

www.stoptb.org

Roll Back Malaria (RBM): A global partnership created by the WHO, UNICEF, UNDP and the World Bank. RBM coordinates international malaria-control activities, bringing together over 90 public and private organizations, international agencies, malaria-endemic countries, and research and academic institutions.

www.rbm.who.int

U.S. Centers for Disease Control and Prevention (CDC): The principle agency in the United States government for protection against infectious and chronic diseases. CDC is a major participant in bilateral and multilateral initiatives on HIV/AIDS and other diseases.

www.cdc.gov

U.S. Food and Drug Administration (FDA): An agency of the U.S. government regulating the development and application of food and medicinal products. FDA approval sets the international standard for accepted HIV/AIDS drugs and therapies.

www.fda.gov

U.S. National Institute of Allergy and Infectious Diseases (NIAID): A division of the U.S. National Institutes of Health for studying HIV and other diseases.

www.niaid.nih.gov

U.S. State Department Office of the Global AIDS Coordinator: The office that leads and coordinates all international HIV/AIDS-related efforts of the United States government, including PEPFAR.

www.state.gov/s/gac

U.S. Agency for International Development (USAID): The international development agency of the U.S. government, facilitating economic, political and public health–related initiatives in developing nations and a major part of the U.S. international HIV response.

www.usaid.gov/our_work/global_health/aids/index.html

Joint United Nations Programme on HIV/AIDS (UNAIDS): The joint venture of the United Nations family, bringing together the efforts and resources of ten UN organizations in the AIDS response to help the world prevent new HIV infections, care for people living with HIV, and mitigate the impact of the epidemic.

www.unaids.org

United Nations Development Programme (UNDP): An agency of the United Nations for improving local infrastructure, poverty reduction and human rights. UNDP plays an important role in the fight against HIV/AIDS, as poverty and other related socio-economic problems contribute greatly to the spread of the epidemic.

www.undp.org

United Nations Children's Fund (UNICEF): An agency of the United Nations committed to improving the quality of life of children worldwide, including children living with and affected by HIV.

www.unicef.org

World Bank HIV/AIDS: A division of the World Bank dedicated to the prevention and mitigation of HIV's social, economic and strategic impact.

www.worldbank.org/aids

World Health Organization (WHO): The WHO is the directing and coordinating authority for the health efforts of the United Nations system, responsible for providing leadership on global health issues.

www.who.int

Dear Journalist,

This section about Latin America and the Caribbean attempts to provide a way to understand the features that characterize the HIV/AIDS epidemic in the region.

Although the Caribbean is the second most-affected region in the world by HIV, and the prevalence of the disease in Latin America has been rising since the turn of the century, HIV/AIDS in the region is often invisible. To talk about HIV/AIDS is to raise many topics that many would prefer to avoid; widespread poverty, homophobia, gender inequality, lack of access to healthcare and education are just some factors that describe the region and hinder the possibility of effectively addressing HIV/AIDS.

The XVII International AIDS Conference (AIDS 2008), in México City, is the first International AIDS Conference ever held in Latin America. With the theme "Universal Action *Now!*", the conference will emphasize the urgency of addressing this epidemic and will raise awareness about the need for both individual and collective responsibility. It is here where journalists play an essential role.

The media often define the agenda at the public level. News can emphasize certain attributes of a current event and diminish others. A camera can show an image to the world. This is the reason this section tries to help journalists in their endeavor while at the same time seeks a commitment from them in our effort to give voice to those affected by HIV/AIDS. There are two choices: to speak up or to remain silent. Providing factual evidence contributes to the fight against the epidemic.

Pedro Cahn, MD, PhD
Co-Chair AIDS 2008
President International AIDS Society
President Fundación Huésped

HIV/AIDS IN LATIN AMERICA AND THE CARIBBEAN: Many Epidemics

The HIV/AIDS epidemic in Latin America and the Caribbean presents one of the most important challenges for health systems, civil society, researchers and governments. At the same time, this is the region with some of the most creative and energetic responses.

Since the beginning of the epidemic, the prevalence of the disease and the populations at risk have changed:

- In the beginning, injection drug users were a vulnerable population mainly for the Southern Cone, now they are a vulnerable population for Mexico's northern border, Puerto Rico and Bermuda.
- In Brazil, the number of injection drug users has diminished in some cities thanks to harm reduction programs.
- In Argentina, most of the new cases are caused by heterosexual sexual relations. Previously the cases were concentrated among injection drug users and men who have sex with men.
- Honduras, Guatemala, El Salvador and Panama are reaching prevalence levels that correspond to a generalized epidemic.
- In Haiti, one of the countries most affected by the epidemic with prevalence similar to that of African countries (3.8% in the adult population), the forms of transmission have been significantly reduced due to changes in sexual behavior (increased condom use).
- Migration, people deprived of their liberty, and the armed forces in Central America and at the Mexican borders are newly vulnerable populations affecting the epidemic.

Some of the factors that hinder the response to HIV/AIDS in the region are the generalization of poverty, migration, absence of leadership in some countries, homophobia, gender-based violence, scarce research about transmission patterns, stigma and discrimination, pressure of some churches to not promote the use of condoms and contextually inappropriate laws relating to the epidemic in the region.

However, something that hasn't changed in the region is that sexual transmission continues to cause the greatest number of cases, generally among the most vulnerable populations:

- Sex workers in Honduras, Suriname and Guyana represent 10% of the cases, 4% in Guatemala and 3% in El Salvador. However, the prevalence among this population decreased by 4% in Argentina and by 2% in Nicaragua and Panama.
- Men who have sex with men represent a quarter of the new infections in Latin America and half of the new cases in Brazil.
- Young people and especially women between 15 and 24 years are another vulnerable group.
- The trans group (transvestites, transsexuals and transgender) represents a 45% prevalence rate in Peru.
- The Caribbean countries have a mainly heterosexual epidemic due in part to the demand for sexual tourism.

Social taboos, stigma and discrimination are barriers that hinder social and individual behaviors to promote safer sexual relations as well as care and support services for people living with HIV. The lack of laws sensitive to these issues and to these populations causes governments to promote treatment efforts over prevention.

- Homophobia is one of these factors in Belize, Costa Rica, El Salvador, Guatemala, Nicaragua, Panama and Mexico.
- The criminalization of sex work increases the vulnerability of this population and obstructs prevention and care efforts.

Women and Young People, Two Populations to Focus on Within the Region

Due to the biological and social vulnerability of this population, the feminization of the epidemic is also reflected in the region:

- In the Caribbean, 37% of the total number of adults living with HIV in 2001 were women. This number increased to 43% in 2007.
- In Latin America, the percentage of women with HIV in 2007 was 32%, approximately 512,000 people.

The groups most vulnerable to the epidemic in the region still lack the necessary prevention, care and support, especially in countries in the Caribbean, Central American and Andean regions.

- Women suffer a double discrimination for being women and living with HIV.

In the 2001 "Declaration of Commitment on HIV/AIDS", the United Nations outlined a plan to reduce the prevalence among young people between the ages of 15 and 24 years by 25%.

- In 2007, there were 2.5 million children living with HIV in the world. Of these, 39,000 were in Latin America and 10,000 in the Caribbean. In 2007, it was estimated that among children there were 6,700 new cases in Latin America and 2,000 new cases in the Caribbean.
- In Haiti, the age of sexual initiation was delayed and condom use was increased among young people between the ages of 15 and 24.
- There was a significant reduction in the prevalence of HIV among young pregnant women, mostly due to prenatal care.
- In Brazil, 41.1% of the sexually transmitted HIV cases registered in 2006 occurred among men between 13 to 24 years old who have sex with men.

However, studies carried out in 9 countries of the region (Argentina, Belize, Brazil, Chile, Mexico, Nicaragua, Peru, Venezuela and Uruguay) to evaluate whether or not the integration and coordination of sexual and reproductive health services as well as the prevention and care services for HIV/AIDS met the goals proposed in the declaration of commitment discovered that:

- Sexual health and HIV/AIDS education is not readily available for young people and teenagers.
- There are no protocols to provide victims of sexual violence with post-exposure prophylaxis and emergency birth control.
- It is difficult to ensure the sexual and reproductive health of women living with HIV.

Addressing the vulnerability at a structural level requires a sustained intervention including the broadening of access to health and education services, establishing anti-discrimination laws and policies, and ensuring the treatment and legal protection of those living with HIV and the most vulnerable populations.

LATIN AMERICA

Clearly, one cannot talk about only one epidemic in the region because of the diversity of the region.

The general statistics in the region show that:

- The HIV epidemic has remained stable since 2003 with a prevalence of 0.5%.
- The estimated number of new infections was 100,000 [47,000-220,000].
- There are 1.6 million [1.4 million–1.9 million] people with HIV.
- According to estimates, approximately 58,000 [49,000-91,000] people died due to AIDS.
- By 2015 it is estimated that there will be 3 million people living with HIV in the region and one and a half million deaths.

Each Country, A Different Reality: The Many Epidemics in the Region

Brazil, **Mexico**, **Argentina** and **Colombia** are the Latin American countries with the largest populations and, as a consequence, with the greatest number of people living with HIV. However, the highest prevalence is in smaller countries such as **Honduras**, **Panama**, **El Salvador** or **Guatemala**, where the prevalence among adults is around 1%. In **Haiti**, the **Bahamas**, **Guyana** and **Belize** prevalence is higher than 2%.

Approximately one third of the people who have HIV in Latin America live in **Brazil**, the first country to offer universal access to antiretroviral treatment.

- It is estimated that in 2006, 620,000 people were living with HIV.
- In the beginning, the epidemic was mainly focused among men who had sex with men (which is currently still an important group in the epidemic in this country). Later, it extended to injection drug users and, with time, to the general population, with a growing number of women becoming infected.
- The prevalence of HIV among injection drug users has decreased in some cities as a result of harm reduction programs.
- Over the last five years, a general decrease in new cases has been reported, with 32,000 cases reported in 2006.

México has a prevalence of 0.3% and almost 90% of the known HIV cases are the result of unprotected sexual relationships, half of them between men who have sex with men.

- It is estimated that 182,000 people are infected in the country, of which only a third know their status.
- CENSIDA (National Center for Prevention and Control of HIV/AIDS) estimates that approximately 3,000 people die every year due to AIDS-related diseases. While universal access to treatment is guaranteed (currently there are 25,000 people in the program), many people living with the virus get attention and treatment too late.
- The role of migration in Mexico is still undetermined. Some studies show an increase in the infection among heterosexuals and a feminization of the epidemic in the rural areas, which could be related to immigration to the United States.

In **Argentina**, in recent years, unprotected sexual relations have become the main way HIV is transmitted.

- In 2006, it was estimated that between 130,000 and 150,000 people were living with the virus in the country, which meant a 0.6% prevalence rate among the adult population.
- It is estimated that two out of three people with HIV (between 70,000 and 100,000) are not aware of their status.
- The male-to-female infection ratio decreased from 15:1 in 1988 to 2.4:1 in 2004 with a disproportionate number of infections among the young population in the poor urban areas.
- According to estimates, four out of every five new HIV cases diagnosed in 2005 were attributed to unprotected sexual relations, mainly heterosexual.
- A higher prevalence is seen among men who have sex with men.
- Estimates show that injection drug use is responsible for only 5% of the new infections registered in the city of Buenos Aires.

The HIV epidemic in **Uruguay** is focused mainly in the capital city, Montevideo, and its surrounding areas, where more than three fourths of the total number of AIDS cases have been reported.

- Unprotected sexual relations, mostly heterosexual, are responsible for approximately two thirds of the reported HIV cases.
- The sexual practices between men and the use of unsterile needles constitute important causes of infection.
- Uruguay has a strong program to prevent transmission from mother to child that has seen significant results in recent years.

In **Paraguay**, the epidemic is focused mainly in Asunción, the capital city, as well as in border areas with Argentina and Brazil

- Most of the people with HIV at the end of 2005 were men.
- The prevalence of HIV among pregnant women at a national level was 0.3% in 2005.

Chile has a prevalence of 0.3% and most of the infections are concentrated in urban areas.

In **Bolivia**, the prevalence is 0.1%, in **Ecuador** it is 0.3% and in **Colombia** and **Peru** it is 0.6%. HIV infections continue to be focused among men who have sex with men.

- The **Andean region** has a more homogeneous trend, where the main forms of HIV transmission are sexual commerce and sexual relationships between men.
- In **Bolivia** the epidemic is centered in the urban areas. A study performed in Cochabamba showed that 3.5% of the children living in the street have HIV, most of whom were infected through sexual contact.
- Sex workers have generally avoided infection, with prevalence less than 1% in 2002 in cities like Cochabamba, Oruro or Tarija and less than 0.5% in La Paz.
- In **Peru**, the prevalence among men who have sex with men in cities such as Arequipa, Iquitos, Pucallpa and Sullana is between 6% and 12% and reaches 23% in Lima.
- Sexual relations between men is an important factor in **Ecuador**, where HIV cases have doubled since 2001 and more than two-thirds of infections were caused by this type of sexual relation.

- In **Colombia**, 83% of the total AIDS cases are among men who have sex with men and, as it happens in various countries in the region, who transmit it to their female partners, affecting the appearance of the epidemic.

In Central America, the virus is spread mainly among the most vulnerable groups and is focused in the urban areas and transportation routes. The epidemic in this region is affected by generalized homophobia and a high prevalence among men who have sex with men as seen in **Belize**, **Costa Rica**, **El Salvador**, **Guatemala**, **Nicaragua** and **Panama**.

Guatemala has a prevalence of 0.9%. In addition to men who have sex with men and sex workers, the prevalence in Mayan indigenous villages could be up to 3 times higher than among the general population.

With 1.5%, **Honduras** has one of the highest prevalence rates in the region. However, some data indicate a decreasing trend and the regular use of condoms among high risk populations.

- The preliminary findings from a study done in 2006 show an HIV prevalence of 5.7% among men who have sex with men in Tegucigalpa (a decrease of 8.2% registered in 2001 and 10% in 1998).
- A strong decrease in the HIV prevalence among sex workers has also been observed in three Honduran cities.
- Among the Garífuna (descendants of Nigerian slaves), a population with generalized poverty and scarce access to health services, a prevalence rate of 8.4% is observed and the rate is 7.6% among people deprived of their liberty.

There are clearly different realities in the epidemiological profile of the sub-region. In some countries we observe a heterosexualization of the epidemic, in others, the epidemic is still concentrated mainly among men who have sex with men.

In Colombia, Mexico and other Central American countries, some experts say that preventive campaigns oriented toward the general population have the adverse effect of making the population of men who have sex with men less visible. In this manner, prevention efforts will not be effective until specific answers to different problems are sought.

THE CARIBBEAN

The epidemic in this sub-region varies significantly by country and population, as a reflection of the cultural, ethnic and geographic diversity. As in Latin America, there has been a growth in cases among women and young people, and in particular, young women.

- This region is the second most affected in the world, after Africa, with a prevalence of 1%.
- Adult women represent 51% of 230,000 people living with HIV in the sub-region.
- During 2007, 11,000 people died due to causes related to AIDS, of which 1,500 were children. AIDS continues to be the number one cause of death in adults between 15 and 44 years old.

In the Caribbean, the structural factors hindering the response to the epidemic are poverty, homophobia, unemployment, stigma, discrimination and gender differences.

The Caribbean has experienced significant advancements in the issue because it has achieved a stabilization of the epidemic in most countries. National answers in the form of National AIDS Commissions, strategic plans, laws, programs, services and an active participation of social networks and civil society have been developed, strengthening the response and improving access to prevention, treatment and care for people.

Young women are especially vulnerable. In some countries, studies have found rates of infection among young women between 2 to 6 times higher than their male partners.

The main form of HIV transmission in this region is sexual, mostly among the population of men who have sex with men, a population that remains invisible due to the associated stigma. The available data suggest that about 12% of the new infections each year correspond to sexual transmission. Unprotected sexual relations between sex workers and clients also constitute a significant factor in the transmission of HIV.

Different Countries, Different Answers

Haiti, where the highest number of people living with HIV in this region is found, has a prevalence of 2.2%.

- Among pregnant women treated in prenatal outpatient clinics, the HIV prevalence decreased from 5.9% in 1996 to 3.1% in 2004 and was stable during 2006.
- There is a decreasing trend in the capital city, Port-au-Prince, and in other cities where the HIV prevalence in women between 14 and 44 years old decreased from 5.5% to 3% between 2000 and 2005.
- The decrease in deaths associated with AIDS and the number of new infections are the results of community-based efforts, cooperating agencies and governments promoting behavior changes and strengthening attention.

In the Dominican Republic, the population of sex workers is one of the most vulnerable populations. One study discovered that condom use increased from 75% to 94% in 12 months among the population in the capital, Santo Domingo.

Cuba has the lowest prevalence in the region (including Latin America) with 0.1% among the adult population.

- The mother-to-child prevention program is among the most effective in the world.
- This country offers free universal access to antiretroviral treatment. This has limited both the number of AIDS cases as well as AIDS-related deaths.

The transmission of HIV in Guyana, with a prevalence of 2.4%, is mainly due to unprotected sexual relations. The last survey carried out in prenatal outpatient clinics in these countries shows an HIV prevalence rate of 16% among pregnant women. This is lower than the prevalence observed in a similar survey in 2004.

A Stabilizing Epidemic

The stabilization of the epidemic doesn't mean that new HIV infections have stopped or that the number of AIDS associated deaths has decreased. It indicates that the prevalence levels have been maintained over time, which, in the case of some Central American and Caribbean countries such as Barbados (1.5%), Dominican Republic (1.0%) Jamaica (1.5%) and Bahamas (3.3%) and Trinidad & Tobago (2.6%) are still very high.

Social issues in the Caribbean agenda still include HIV/AIDS-related stigma and the discrimination of the most vulnerable populations such as men who have sex with men, sex workers, and injection drug users.

The stabilization of the epidemic is good news. However, it is still necessary to address the vulnerability at a structural level. This implies a sustained intervention including a broadening of access to health and education services, establishing anti-discrimination laws and policies and ensuring the treatment and legal protection of people living with HIV. Moving away from predetermined notions of the region to address the different contexts of the epidemic may lead to the attainment of an effective and efficient response that ends the expansion of the HIV epidemic.

REFERENCES

Az Prensa – España. *Young people are still not using protection during sexual relations, in spite of the danger of infection*, March 2008

Barria/EFE. *Leaders during the IV Meeting of the First Ladies of Latin America Coalition*, March 2008

CENSIDA. *Only half of the seropositive individuals receive free medical attention*, February 2008

Cohen. *HIV/AIDS: Latin America and the Caribbean*, Science, July 2006

Comisión Caribeña de Salud y Desarrollo, 2005; Inciardi, Syvertsen y Surratt, 2005

El Mundo – España. *Brazil launches a campaign to reduce AIDS among young homosexuals*, October 2008

Fundación Huésped. *Actualizaciones en SIDA*. Vol. 16, No. 59, March 2008

Gupta et al., 2006; Secretaría de Estado de Salud Pública y Asistencia Social de República Dominicana, 2005b; OPS, 2007; Gebre et al., 2006; Allen et al., 2006

InfoPAE. *The cases of HIV and AIDS in women increase*, January 2008

Kaiser Family Foundation. *HIV/AIDS Policy Fact Sheet. The HIV/AIDS Epidemic in the Caribbean*, November 2007

Ministerio de Salud de Jamaica, 2007; Ministerio de Salud de las Bahamas, 2006; OPS y OMS, 2006; Ministerio de Salud de Trinidad y Tobago, 2007

Montano et al., 2005; Programa Nacional del sida del Uruguay, 2007; IDES et al., 2005

UNAIDS and World Coalition about Women and AIDS. *Keep the promise: A program for action related to women and AIDS*, 2006

UNAIDS. *Information Sheet, The Caribbean,* June 2005

UNAIDS/World Health Organization. *Situation of the AIDS Epidemic*, 2007

UNAIDS. *2006 Report on the Global AIDS Epidemic*

UNAIDS. *2006 Report on the Global AIDS Epidemic. Annex 1. Country Profiles*

UNAIDS. *Inciting the World against AIDS*, November 2007

THE IMMIGRANT'S REALITY: Vulnerability and HIV/AIDS

According to a study published in *The Lancet* and UNAIDS recommendations, starting in 1995, immigration and other forms of demographic mobility began to be associated with the HIV/AIDS epidemic.

The migratory phenomenon may be defined according to some demographic variants. First, it is possible to distinguish between two types of immigrants: those who travel to another country to work for a limited period of time and those who intend to live in another country. In addition, there are also those who travel from one area to another within the same country for work reasons. Truck drivers, sailors, miners and sex workers belong to this group. This group also includes people who have been forced to flee their homes to avoid an armed conflict, violence, human rights violations or natural disasters and who are displaced to another area within the same country.

The purpose of this article is not to give specific data about each country, but rather to give general information in order to provide a general framework for the migration phenomenon in Latin America:

- The migratory flow from **Nicaragua** to **Costa Rica** is the result of a combination of factors including natural disasters, political conflicts and economic crises.
- **Mexico** is the country with the highest number of immigrants in the United States with 10.2 million people; 6.5 million of those are undocumented. The income from remittances sent to Mexico by people who live abroad is greater than all of the other exterior income sources except oil.
- The sub-region of the **Caribbean** is characterized by a constant internal circulation and of non-Caribbean immigrants in transit. Human rights violations and a lack of stable governments influence mobilization both inside and outside of the Caribbean.
- The **Dominican Republic** and **Haiti** report the highest immigration rates.
- In 2000, according to the United States census, there were a total of 2,879,000 Caribbean immigrants in the U.S.
- Due to the conflict that has continued over the last 50 years, **Colombia** has the second highest population of internally displaced people in the world (after Uganda), reaching 1.7 million people. The majority of people move from rural areas to bigger towns or cities within the country.

Migrant populations and immigrants interact with the resident population at border crossing points as well as within the arrival countries. Some of these interactions are based on inequalities, where the human rights of the immigrants are violated and the risk factors to HIV infection increase.

Stigma and Vulnerability

Some factors that increase the vulnerability of the immigrant populations are the destruction and creation of new social networks due to constant movement, economic insecurity, social and institutional violence in the host countries, systematic violation of human rights, high levels of illiteracy and — in some cases — not knowing the language of the country. In addition, there is discrimination based on gender, language, skin color, and ethnicity. In some of the border cities in the region, immigrants are considered "*AIDS transmitters*".

- *The pressure to earn money may make men and women exchange sex for money, clothes, shelter or food. This has been called "survival sex".*
- *It was discovered that in the USA half of the agricultural workers have contact with sex workers. The Latino sex workers demand the use of condoms less than the North American sex workers.*
- *Another phenomenon associated with immigration is the use of drugs to reduce stress and avoid depression, as well as the sharing of syringes to inject vitamins and antibiotics as a way to increase energy levels for work.*

This context promotes high risk behavior among this population such as forced sexual relations, the so-called "*survival sex*", sex work, the use of alcohol and drugs, multiple partners and unprotected sexual relations.

The migratory phenomenon increasingly affects women and young people. This is the reason why, in addition to being immigrants, these individuals are just as vulnerable as other populations engaging in risk practices, such as men who have sex with men (MSM), injection drug users (IDU) and/or sex workers (SW).

An immigrant's level of exposure to HIV infection depends greatly on his or her integration into the culture of the country:

- *A study among truck drivers in* **Honduras** *showed that 40% of the men who had sex with sex workers never used a condom.*
- *The prevalence among the Mexican immigrant population in the United States is 1%, three times the prevalence estimated at the national level (0.3%).*
- *A higher prevalence was found on the border shared by Brazil, Argentina and Paraguay than inside the countries as well as low or poor quality services and adverse social conditions. The most vulnerable populations include truckers, drug users, illegal immigrants and sex workers.*

- The **protection factors** used by immigrants to maintain their culture in the new country include sexual modesty, few sexual partners and reduced consumption of alcohol and drugs. The **risk factors** for the same population are the predominance of a macho mindset, the power differential between sexual partners and a lack of sexual education.
- The **protection factors** used by immigrants that have caused the greatest loss of their own culture and that benefit the host country are individualism, self-determination, and empowerment, the ability to demand condom use and a less predominant macho mindset. The **risk factors** in this same population are a higher number of sexual partners as well as exposure to situations where casual sex and drug use are common practices.

Multiple national standards and international treaties protect the rights of immigrants:

- The International Convention for the Protection of the Rights of All Migrant Workers and Members of their Families guarantees healthcare to prevent any kind of untreatable health problem, granting equal rights to immigrants and citizens of the country.
- The Special Summit of the Americas, which took place in Mexico in 2004, established in one of its agreements "the complete protection of the human rights of all immigrants" and urged the United States to increase its efforts to prevent, control and treat HIV through regional cooperation. This objective was reaffirmed in the Americas Meeting in Argentina in 2005.
- In the Central American and Mexican Strategic Plans for HIV/AIDS, the immigrant population has been indentified as a vulnerable population and initiatives have been proposed to increase prevention and health care for immigrant and migrant populations.
- Many of the countries have specific laws for immigrants, which give structure to the rights and responsibilities of this population. The majority of these laws, as in the case of the Immigration Act of Argentina (Law 25.871), provide immigrants with access to all of the rights guaranteed to the citizens of the country.

However, the reality in most countries is that the international agreements and the national laws don't always impact the daily lives of the people. Often, the status of undocumented immigrants increases the exploitation and violation of human rights. This limits their access to health services and other social support services, increases their vulnerability and decreases their ability to engage in preventive behaviors.

Many immigrants, initially and even after living in a country for a long time, do not integrate socially or culturally into the new country. This causes anxiety, loneliness and isolation – situations that may increase risk behaviors. An example of this is shown among indigenous populations who, in recent years, have migrated to seek better wages. However, the cultural and language barriers block their access to prevention and healthcare services.

The United States: In Search of Destiny

The United States is the most sought-after country by Latino immigrants. Currently, it hosts 12 million Latino immigrants, most of them concentrated in the states with the highest levels of HIV. It is estimated that 200,000 Latin Americans in this country live with HIV, representing 19% of the cases diagnosed in 2005. AIDS is the sixth greatest cause of death among Latinos between the ages of 25 and 44.

- Latina women represented 16% of the total number of women with HIV in the U.S. in 2005.
- Among young people with HIV, Latino teenagers (between the ages of 13 and 19) represented 17% and Latino young people (between the ages of 20 and 24) represented 22% of the cases.
- For Latino men as well as for Caucasian men, the main form of transmission is between men who have sex with men.
- Transmission through heterosexual relations and injection drug use is higher among Latino men than among Caucasian men.
- The Latino population has less health insurance (or none at all). 24% of Latinos living with HIV/AIDS are in this situation.
- According to a study among Latinos, 46% considered AIDS to be the biggest problem in their community.

The United States has developed some plans to improve access to antiretroviral (ARV) drugs for low-income populations who do not have access to health insurance. However, the fear of being refused citizenship or being deported because they are undocumented represents an obstacle. As a consequence, many HIV-positive Latinos only receive health care once the disease is in an advanced stage.

Reducing the Incidence of HIV/AIDS Among Immigrants

Prevention efforts within the immigrant population should take into consideration that, for immigrants, the specific vulnerabilities of being an immigrant are added to the existing vulnerabilities of the populations most affected by the HIV/AIDS epidemic in the region: men who have sex with men, injection drug users and sex workers. Therefore, it is crucial that these efforts should be focused on eliminating the vulnerability and stigma of these populations.

> *"It is essential to move immigration from the national security and terrorism agendas to more appropriate agendas focused on development, social justice and human rights." (IOM)*

- The mechanisms for implementing prevention, attention and treatment plans should ensure national, bi-national and regional participation focused on immigrants.
- The perception of vulnerability in the immigrant population should be increased and preventive behaviors should be strengthened, because among this population the perception of risk to the disease is much lower than among citizens.
- It is important to work to prevent and promote the rights of women because they have increased vulnerability, especially regarding sexual negotiation and condom use. In addition they often are forced to become sex workers as a way of life and subsistence.

- Prevention and treatment should not only be provided in the immigrant's native language, but should also incorporate cultural sensibilities.
- Prevention actions provided in the immigrants' countries of origin are generally centralized in the capital cities and other big cities. The immigrant population generally resides in rural areas, where information and actions to fight the HIV/AIDS epidemic are unavailable.
- It is important that the decision makers consider the costs and benefits of the prevention options so that expenses are reduced and basic health care needs of immigrants are met.

REFERENCES

A. Dreser, et al. *Mobility and HIV/AIDS: The vulnerability of Mobile Sex Workers in Central America and Mexico*. XIV International AIDS Conference, 2002

Kendal, Tamil. *Migración, VIH/SIDA y Temas Relacionados*, Population Council

M. Bronfman, et al. *Mobile Populations and HIV/AIDS in Central America, Mexico and the United States*. XIV International AIDS Conference, 2002

M. Caballero, et al. *Migration, Gender and HIV/AIDS in Central America and Mexico*. XIV International AIDS Conference, 2002

M. Negroni, et al. *Reaching Mobile Populations for AIDS Prevention in Southern Mexican Border Towns*. XIV International AIDS Conference, 2002

Organización Internacional sobre Migración. *Revista Migraciones*. Números: December 2005, June 2006, September 2006, December 2006, December 2007

Pan American Health Organization. *The UNGASS, Gender and Women's Vulnerability to HIV/AIDS in Latin America and the Caribbean*, December 2002

Population Council. *Mejorando la Prevención, el Diagnostico y el Tratamiento para ITS/VIH/SIDA en Poblaciones Móviles: Camioneros en la Triple Frontera Brasil, Argentina y Paraguay*, 2005

Population Council. *Migración y VIH/SIDA*, http://www.popcouncil.org/migracion/

Kaiser Family Foundation. *HIV/AIDS Policy Fact Sheet. Latinos and HIV/AIDS*, July 2007

A POWERFUL RESPONSIBILITY:
Media Coverage of HIV/AIDS in Latin America

The media perform a fundamental role in the construction of social reality. Through the media, especially journalistic discourse, society gains access to those events that are not part of their direct experiences. The media convey "what happens", define the public agenda and, at the same time, emphasize certain news attributes and omit others. As a result the media have the privilege of construing a reality to society through images and representations of different events.

The history of AIDS as a social issue began with an article published in *The New York Times* on July 3, 1981, that announced an increase in the number of pneumonia cases among homosexual men in the U.S. From that inaugural moment, news regarding the new virus traveled around the world. Especially in Latin America, where the number of unregistered cases is so high that it prevents an accurate picture of the actual impact of the disease, the media have become the most important resource for the construction of the reality about HIV/AIDS.

At the beginning of the epidemic, the metaphors regarding HIV tended to reinforce the negative connotations of already marginalized behaviors. The stigma associated with AIDS added to the pre-existent social differences.

- The use of the metaphors *red plague* or *gay cancer* associated AIDS with the homosexual community. This image was largely replaced in 1985 when heterosexual transmission was discovered.
- The so-called *high risk groups* accentuated the stigmatization of populations including sex workers, drug users and sexual minorities.
- Metaphors associating HIV with guilt and punishment promoted the marginalization of the epidemic.

In Latin American and the Caribbean, the metaphors used in the news about HIV/AIDS evolved and changed with the image built around HIV.

- Images of the homosexual community have become less prominent due to the change in the epidemiological profile. However, in countries like Mexico, this has marginalized the cases of men who have sex with men.
- The use of terms like *homosexual, gay or bisexual* persists and tends to confuse a sexual identity with a sexual behavior.
- Even though most of the metaphors have been eliminated, others such as *carrier* (assuming that the person who lives with HIV will "carry" a differential marking) or *victim* (evoking weakness or impotence) still characterize the media's discourse.
- AIDS has been described in Spanish as *el mal*, a label that was previously associated with Nazism.
- In Central American newspapers, as in Nicaragua, one still finds alarming headlines using the terms *panic* or *AIDS-ridden*.

However, in spite of these representations, a greater level of responsibility in the use of information regarding HIV/AIDS has been evident recently. In Brazil, for example, the media played a fundamental role in putting the antiretroviral therapy problem in the public agenda, which led to universal coverage in 1997. The sensitization efforts of civil society organizations, mostly in Central America, have also played an important role in this process.

New Forms of News Production and Consumption

As a result of globalization, both economically and symbolically, the news has become a product that must adhere to market laws. Sensationalizing stories becomes the main strategy and, often, the role of informing is relegated to entertainment sources. Sensationalist rhetoric and the narration of individual cases are used to tell stories about HIV/AIDS.

- In Bolivia, where 90% of cases are undocumented and HIV continues to be quite stigmatized, each new case becomes news.
- In Central American newspapers, one can find news that accuses people of "injecting" others with HIV, that claims AIDS is to blame for the economic crisis, or that reports on the number of suicides caused by AIDS.

Finally, the same market dynamics that impose new trends frequently result in a media agenda that doesn't match the development of the HIV epidemic. While the press waits anxiously for a cure or at least new treatments, the scientific community understands that changes will occur slowly.

- Treatments that have merely finished a research stage are presented as the "salvation", without considering that people who live with HIV will not benefit until the treatments are available.
- The headlines that emphasize the lack of a vaccine overlook details about prevention.
- New epidemiological data get the media's attention, even though the data are often misinterpreted and taken out of context.

First-person accounts or the showcasing of the most immediate aspects of the epidemic, while contributing to the humanization of people living with HIV, often divert attention away from the structural aspects of the problem. At the same time, this marketing logic reduces the quality of journalism by promoting constructed facts.

Even though HIV/AIDS is part of the media's agenda, coverage is irregular. Particular events, such as World AIDS Day, get the most attention and epidemiological data are prioritized over information about the social or structural aspects of the epidemic.

The relevance of the media's role in communicating information related to preventing and eliminating HIV/AIDS is indisputable. Presently there is no vaccine capable of preventing HIV infection. The only way to reduce the expansion and social impact of the epidemic is to provide basic and responsible information about the subject. The media have the power to keep HIV/AIDS in the public agenda and to establish its qualitative characteristics. It is within that power that the media's responsibility lies.

STIGMA AND DISCRIMINATION:
How an Epidemic Became a Problem of Social Inequality

Over the course of 25 years, HIV has expanded in a truly democratic fashion without discriminating based on gender, sexual orientation or socio-economic status. Since the epidemic began, the stigma associated with AIDS has silenced the discussion of the problem. To talk about AIDS it is necessary to begin by acknowledging our prejudices, fears, and ignorance that make the disease disreputable and the patients guilty.

Stigma, discrimination, silence, denial and lack of confidentiality undermine prevention efforts, care and support. It also increases the impact of the HIV epidemic on individuals, families, communities and countries.

In 2005, a special session of the United Nations General Assembly defined stigma and discrimination associated with HIV/AIDS as an obstacle in Latin America.

UNAIDS defines stigma as a powerful means of social control that occurs by disregarding, excluding and/or exercising power over individuals showing certain attributes.

This is the point at which discrimination comes into play. It denies many universal human rights by denying prevention, care and support services because the individual is not treated as human.

In the case of HIV/AIDS, stigma and discrimination lead to:

- Reinforcing negative connotations of already marginalized behaviors, such as sex work, drug use and certain sexual practices.
- Associating the epidemic with a series of metaphors that relate HIV/AIDS to blame, death, and prohibited behaviors. These metaphors tend to accentuate discrimination.
- Strengthening the metaphor of HIV as a "punishment" while at the same time labeling those living with the virus as "different", which exempts others from facing the problem.
- Reduction of individual risk perception, limiting personal care.
- Discouraging awareness of one's status or refusing treatment and care in order to preserve anonymity.
- Believing that AIDS is a disease that affects other people: gays, women, Africans, "other people", but never just anyone, or everybody.

Human Rights

Human rights are not only good intentions that countries put on paper. History reminds us of the need to protect the most vulnerable and unprotected from powerful forces. During the 20th century, the Universal Declaration of Human Rights promoted that States create policies to ensure the health, education, equality, dignified work and privacy of its citizens. It provided a framework to address health from a more comprehensive perspective and to promote the access of this right to all.

Addressing stigma and discrimination is a prerequisite for developing strategies against HIV/AIDS. The promotion and protection of human rights are basic conditions to provide a response to the epidemic at the regional level.

Public health and the ministries of health of Latin American and Caribbean governments should consider the protection of human rights to strengthen and improve care and preventive services.

The Declaration of Commitment on HIV/AIDS, approved by a Special Session of the United Nations General Assembly (UNGASS) in 2001 and signed by UN Member States, pledges to base the response to the epidemic on a framework of human rights. Some critics say seven years after the commitment of resources to provide a response to the AIDS epidemic, little effort has been made to invest in programs legally guaranteeing these agreements.

> *"Full enjoyment of human rights and fundamental freedoms for all, is indispensable to reduce the vulnerability of HIV/AIDS"*
> Paragraph 58 of UNGASS

In the case of HIV it is important to comply with the following human rights, within the framework of several international agreements:

- The right not to be subjected to discrimination or stigma for any internal or external factor that a person might have.
- Access to ARV drugs and quality care.
- The right of people living with HIV and the most vulnerable populations to participate in drafting AIDS policies and programs.
- Access to voluntary pre- and post-test counseling in a confidential environment.
- Right to access information about HIV/AIDS and sexual education as a means to increase protection.
- Right to access preventive methods, such as condoms, water-based lubricants, exchange of syringes and other programs with scientifically proven efficacy.

> *Ensuring the rights of all citizens is the responsibility of the Nation, but it is also the responsibility of the citizens to ensure that the Nation protects their rights.*

REFERENCES

ONUSIDA. *Impulsar una acción eficaz sobre el VIH/ SIDA. Un desafío persistente para los mandatarios de la cumple de la OEA*, November 2005

Maglio, Ignacio. *Derechos Humanos. Derecho a la dignidad y SIDA en Actualizaciones en SIDA*. Volumen 2. No 3

Aggleton, P., Word, K. y Malcolm, A. *Violaciones de los derechos humanos, estigma y discriminación relacionados con el VIH*, ONUSIDA, April 2005

Vazquez, M., Salomé M., Pregno, E., Wald, G. *Derechos Humanos y SIDA. Guía para promotores comunitarios*, Fundación Huésped – Embajada Real de los Países Bajos, August 2004

Population Council. *Migración*, México, 2007

Open Society Institue. *Los Derechos Humanos y el VIH/SIDA: Ahora Más que Nunca*, Segunda Edición, September 2007

ACCESS TO ANTIRETROVIRAL (ARV) TREATMENT IN LATIN AMERICA AND THE CARIBBEAN

Since 1996, when the highly active antiretroviral therapy era (HAART) began, one of the most significant limitations has been the therapy's high cost. Access to therapy is even more difficult in countries with limited economic resources.

In the last report from WHO, UNAIDS and UNICEF (2007), global treatment coverage reached more than 2 million people, which is an increase from 7% coverage in 2003 to 28% in 2007.

- In Latin America and the Caribbean it is estimated that only 355,000 of the 490,000 infected people have access to ARVs. This accounts for 72%.
- The Latin American and the Caribbean region has the highest coverage among similar regions with medium and lower income countries.
- It is estimated that the 15,000 children who were treated by the end of 2006 in the region account for only 4.4% of those who require antiretroviral drugs in Latin America and the Caribbean.

HIV/AIDS diagnosis and treatment demands a political commitment to provide significant health resources. In addition to the cost of the drugs, other barriers to access include bureaucracy in the purchase and distribution system, centralization of supply, lack of personnel trained to care for HIV-positive patients and, above all, the need for a stronger political and social commitment.

In Latin America, policies at the national and regional levels that have been implemented and that have increased access to ARVs include:

- In the year 2000, the Accelerating Access Initiative (IAA), along with the introduction of generic drugs and public pressure from several countries, enabled a significant reduction in the price of medications. The IAA is a public-private alliance of five pharmaceutical companies and five international organizations to improve the care of those living with HIV.
- The first to take a regional approach were the Caribbean countries. In July 2002, the Caribbean Community (CARICOM) obtained a price reduction of the triple-drug regimen so that the prices were similar to those in sub-Saharan Africa.
- Subsequently, the Central American countries, through the Council of Ministries of Health of Central America (COMISCA), obtained a 55% reduction of brand name drugs in January 2003.
- Finally, 10 Latin American countries began the third initiative for the joint purchase of drugs. It was developed by the Ministries of Health of the Andean Region (Chile, Colombia, Ecuador, Peru and Venezuela), with the participation of Argentina, Mexico, Paraguay and Uruguay. This enabled a 30% to 92% price reduction for brand name and generic drugs. However, due to national difficulties faced at that time, such as tariffs and lack of patents, the drugs were obtained at a higher price than what was originally negotiated.
- In August 2005, these 10 countries, now joined by Brazil, negotiated again with 26 laboratories and obtained discounts between 15% and 55% for the therapeutic regimens most widely used in the region. For the first time they agreed on the same maximum price. Based on that limit each country could continue lowering prices.

Another key aspect in the progress toward access to drugs is that most of the Latin American countries are beneficiaries of international funds, such as the WHO, the Global Fund to Fight AIDS, Tuberculosis and Malaria, or the President's Emergency Plan for AIDS Relief (PEPFAR). These organizations were designed for fundraising and distributing resources for the fight against AIDS.

Universal access to treatment and care are not the good intentions of governments, but rather the policies that prevent the deaths of thousands of people.

However, the reality is that there are still several gaps in access that need to be bridged. According to the 2007 Report on HIV/AIDS in the Americas from UNAIDS, WHO and PAHO, there is no country with 100% coverage. Costa Rica and Cuba are the countries closest to this goal with coverage exceeding 95%. The Dominican Republic and Haiti are the countries with the highest prevalence of HIV/AIDS and they provide treatment for 37% and 39%, respectively. The country with the lowest coverage rate is Bolivia with an estimated accessibility rate of 24%.

Now there are an increasing number of Latin American countries providing universal access to drugs for people living with AIDS. But, at the same time, in many countries throughout the region there is a lack of access to general healthcare, so many people living with HIV are unaware of their status and therefore, they do not have access to medical evaluation and treatment (even when they are available in the country). This explains why countries like Brazil or Argentina with legislation guaranteeing universal access, have, according to the previously mentioned report, coverage of 85% and 79%, respectively.

The most significant barriers to access to drugs in those countries that include coverage in their public policies are, on the one hand, the stigma and discrimination of people living with HIV and vulnerable groups. Poverty also plays a prominent role because it prevents people who live far from healthcare centers from obtaining their medication. And finally, there are not always trained and sensitized healthcare personnel available.

There is still much to do, especially when the deaths of thousands of people in the region could be prevented by improving currently existing structures. As stated by Dr. Mirta Roses, Director of PAHO, during her closing address for the IV Latin American and Caribbean Forum on HIV/AIDS and STDs: "the only way to stop and reverse the HIV epidemic is through a comprehensive response that achieves an adequate balance of prevention, care and treatment within a respectful social environment that focuses on the right to health, inclusion, and zero tolerance for stigma and discrimination".

REFERENCES

Eugene Schiff. *¿Dónde están los medicamentos antirretrovirales en el Caribe? Una tragedia ignorada y sin sentido*, March 2005, http://aguabuena.org/articulos.html

Fitzgerald, J., Gomez, B. *An open competition model for regional price negotiations yields lowest ARV in the Americas*, December 2003, http://www.paho.org/English/AD/THS/EV/acceso_gen_priceneg.pdf

Fundación Huésped. *Actualizaciones en SIDA*, Vol. 16, No. 59, March 2008

International Treatment Preparedness Coalition (ITPC). *Missing the Target: A report on HIV/AIDS treatment access from the frontlines*, November 2005, http://www.aidstreatmentaccess.org/itpcfinal.pdf

International Treatment Preparedness Coalition (ITPC). *Missing the Target #5: Improving AIDS Drug Access and Advancing Health Care for All*, December 2007

Jong-Wook, L. *Mensaje del Director General*, December 2005, http://www.who.int/dg/lee/speeches/2005/worldaidsday2005b/es/index.html

Laura Porras. *Ante Fracaso de 3x5, ITPC presenta investigación y propuestas*, Agua Buena, 28 de November 2005, http://www.aguabuena.org/articulos/regional20051213.html

REFERENCES (continued)

UNAIDS, World Health Organization, Pan American Health Organization. *HIV and AIDS in the Americas. 2007 Report. The evolving epidemic, response and challenges ahead*, September 2007

OPS. *46o Consejo Directivo. El Acceso a la Atención para las personas que viven con el VIH o aquejadas de SIDA*, September 2005

Roses, Dra. Mirta. Discurso de Clausura del IV Foro Latinoamericano y del Caribe en VIH/SIDA/ITS. *Latinoamérica y el Caribe: Unidos en la diversidad hacia el acceso universal*, April 2007

Seoane Vázquez, E., Rodríguez-Monguío, R. *Análisis del Impacto de las negociaciones de medicamentos en la región andina*, The Ohio State University, March 2005, http://www.paho.org/Spanish/AD/FCH/AI/NegociacionPreciosVIH.pdf

KEY FIGURES IN LATIN AMERICA

Ricardo Baruch (Mexico)

Mr. Baruch is a young activist and coordinator the XVII International AIDS Conference's program for young people. He represents Latin America in the NGO delegation of the Global Fund and he is the Regional Focal Point for Latin America for the Global Youth Coalition against AIDS (GYCA). He is co-coordinator of the HIV/AIDS Work Force for the Youth Coalition on Sexual and Reproductive Rights.

www.youthaidscoalition.org

Mabel Bianco (Argentina)

Dr. Bianco is a renowned women's rights activist. She is a doctor and epidemiologist as well as the founder and current director of the Fundación para el Estudio e Investigación de la Mujer (Foundation for the Study and Research of Women – FEIM). She was advisor to the Argentinean Health and Social Action Ministry and directed the Health Ministry's National Program for the fight against AIDS and STDs.

www.feim.org.ar

Carl Brown (Guyana)

Mr. Brown is Director of the Pan Caribbean Partnership against HIV/AIDS (PANCAP), which connects the different Caribbean countries through their Health Ministries to provide a regional answer to the HIV/AIDS epidemic.

www.pancap.org

Mario Bronfman (Mexico)

Dr. Bronfman was Head Researcher for the Mexican National Institute of Public Health and Chief Executive Officer of the same institute's Public Health Research Center. He is a member of the National System of Researchers and the National Secretary of the International Forum for Social Sciences in Health. Dr. Bronfman represents Mexico and Central America for the Ford Foundation.

www.fordfound.org

Robinson Cabello (Peru)

Dr. Cabello is a member of the Executive Committee of the Latin American and Caribbean Council of AIDS Service Organizations (LACASSO). His position is to represent and monitor the actions of the Regional Secretariat. He is Chief Executive Officer of Vía Libre.

www.laccaso.org
www.vialibre.org.pe

Pedro Cahn (Argentina)

Dr. Cahn MD, Ph.D is Chief of the Infectious Diseases Unit, Juan A Fernandez Hospital and Assistant Professor in Infectious Diseases at the Buenos Aires University Medical School, where he received his medical degree. In 1989, Dr. Cahn founded Fundación Huésped, one of the most prestigious HIV/AIDS NGOs in Argentina, where he now serves as Director. He is Conference Co-Chair of the International AIDS Conference in Mexico City in 2008 and is the current President of the International AIDS Society.

www.huesped.org.ar

Xiomara Castro de Zelaya (Honduras)

Mrs. de Zelaya is Honduras' First Lady. Throughout her administration she has promoted efforts geared toward the prevention, treatment and care of HIV/AIDS. She was key in organizing the First Ladies and Female Leaders Coalition in Latin America to explore the topic of women and AIDS.

www.primeradama.gob.hn

Pedro Chequer (Brazil)

Dr. Chequer is coordinator of the United Nations AIDS program in Brazil. He co-founded and for several years was director of Brazil's National AIDS Program where he oversaw the implementation of Brazil's policy of universal access to treatment and prevention.

www.unaids.org/en/CountryResponses/Countries/brazil.asp

Raquel Child (Mexico)

Ms. Child is the regional advisor for the Prevention of HIV/AIDS for the United Nations Population Fund (UNFPA), an international agency focused on development that promotes equal opportunity, health and human rights.

www.unfpa.org

Julio Frenk (Mexico)

Currently the Chief Executive Officer of the Carso Health Institute and a member of Mexico's National Medical Academy, Dr. Frenk was Mexico's Minister of Health from 2000 to 2006. He has also served as Chief Executive Officer of Research and Policy Information for the World Health Organization and a visiting professor at Harvard University. Dr. Frenk was the first director of Mexico's National Institute of Public Health.

www.salud.carso.org

Eduardo Gotuzzo (Peru)

Dr. Gotuzzo is Director of the Alexander von Humboldt Tropical Medicine Institute at the Universidad Peruana Cayetano Heredia (UPCH) in Lima and of the Gorgas International Course in Clinical Tropical Medicine, a joint program between UPCH and the University of Alabama. He has overseen the International Society of Infectious Diseases (ISID), the Peruvian Association of Internal Medicine and the Pan-American Association of Infectious Diseases. He is an honorary member of American Society of Tropical Medicine and Hygiene and the National Medical Academy.

www.upch.edu.pe

Javier Hourcade Bellocq (Argentina)

Mr. Hourcade Bellocq is Co-President of the Leadership Program Committee for the XVII International AIDS Conference. He is the Latin American regional representative for the International Alliance against HIV/AIDS. He is also a member of the Governing Council for the Global Fund and is part of the delegation that supports communities of people living with HIV and TB as well as those affected by Malaria.

www.aidsalliance.org

Carol Jacobs (Barbados)

Dr. Jacobs leads the National Commission for HIV/AIDS in Barbados. From 2004–2006, she chaired the Board of the World Fund to Fight AIDS, Tuberculosis and Malaria, representing Latin America and the Caribbean.

www.hiv-aids.gov.bb

Nils Kastberg (Panama)

Mr. Kastberg is Director of the United Nations Children's Fund (UNICEF) for Latin America and the Caribbean. He has diverse work experience in developing countries and has led advancements in issues related to maternal health, HIV/AIDS and the rights of children and teenagers.

www.unicef.org/lac

Orlando Montoya (Ecuador)

Mr. Montoya is Director of the Fundación Equidad Ecuatoriana (Ecuadorian Foundation for Equality) and Coordinator of the Asociación para la Salud Integral y Ciudadanía de Latinoamérica (Association for Integrated Health and Citizenship of Latin America – ASICAL). He is also a part of the Latin-American Network of Groups GLBTT and MSM.

www.asical.org

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www.gheskio.org

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www.aids.gov.br

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www.sld.cu/servicios/sida

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www.icwlatina.org

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www.ammar.org.ar
www.redtrasex.org.ar

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www.redlactrans.org
www.lgbt.org.ar

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www.paho.org

Gracia Violeta Ross (Bolivia)

Ross is a young Bolivian who became an activist after being raped and infected with HIV. Today she is the National Chair of the Bolivian Network of People Living with HIV/AIDS (REDBOL), as well as a member of the International Community of Women Living with HIV/AIDS. In her public appearances, she encourages women to become more involved in political, cultural and gender issues. In 2006, she served as co-chair of the Community Program Committee for the XVI International AIDS Conference in Toronto.

www.icw.org

Jorge Saavedra (Mexico)

Dr. Saavedra has led the National HIV/AIDS Program in Mexico (Censida) since 2003 and launched the program aimed at universal access to AIDS medications. He previously served as a Board Member of the Global Fund. In 2000, Dr. Saavedra founded the first Ambulatory Care AIDS Clinic in Mexico City, which has become Mexico's largest such care center. As the first openly gay person to hold a senior position in the Mexican government, Dr. Saavedra has advocated for the rights of gay people who are HIV-positive.

www.salud.gob.mx/conasida

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www.cnrsida.org.ar

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www.ufrj.br

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www.innsz.mx

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www.aguabuena.org

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Dr. Teixeira previously was Director of the World Health Organization's (WHO) HIV/AIDS Department. He gained worldwide recognition for his work on HIV/AIDS in Brazil and Latin America. Dr. Teixeira was director of the National STD/AIDS Program at the Ministry of Health in Brazil, where he created the first national AIDS program in 1983. Dr. Teixeira pioneered Brazil's program for free, universal distribution of ARVs, which has become a model for other developing countries dealing with HIV/AIDS. He is now involved in environmental issues.

www.who.int/hiv

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Patrick Welsh is Vice President of the Association of Men against Violence in Nicaragua. Born in Northern Ireland, he has an extensive background in international cooperation in Central America. Thousands of men have received the workshops he gives for the Association of Men against Violence.

www.canteranicaragua.org

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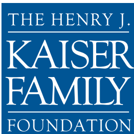

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