

THE TIP OF THE ICEBERG

the GLOBAL IMPACT of HIV/AIDS on YOUTH

Todd Summers
Progressive Health Partners

Jennifer Kates
The Henry J. Kaiser Family Foundation

Gillian Murphy
Consultant

July 2002

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OVERVIEW

While HIV/AIDS has always been an epidemic of young people, the current impact may well be but the tip of the iceberg. If current trends persist, the number of young people living with HIV/AIDS could rise from the current estimate of 12.4 million to 21.5 million by the end of the decade.

Already, the epidemic has affected millions of youth in their most productive years. Almost a third of the 40 million people estimated to be living with HIV/AIDS worldwide are between the ages of 15 and 24 and half of all new adult HIV infections are estimated to be among this same age group—almost 6,000 infections per day. When infections among children under the age of 15 are factored in, an estimated 8,000 young people and children become infected with HIV every day around the world.¹⁻³

Most adults now living with AIDS were infected as young people. Moreover, teens infected with HIV often become sick and die of AIDS-related causes as young adults. The number of deaths estimated to occur among young people ages 20-34 (those most likely to have been infected as teens and even younger adults) could top 20 million in highly-affected countries in this decade alone.

Several interrelated factors combine to exacerbate the epidemic's impact on young people:

- ✓ Youth face particular vulnerabilities that put them uniquely at risk for HIV, including their age, biological and emotional development, and their financial dependence.
- ✓ Most sexually active young people at risk for HIV do not perceive themselves to be at risk. In addition, most young people living with HIV do not know that they are infected.
- ✓ Certain subpopulations of youth bear a disproportionate share of HIV's proliferation and/or are at increasing risk. Girls and young women, for example, represent a substantial and growing proportion of new infections worldwide.
- ✓ HIV/AIDS prevalence (the number of people living with HIV or AIDS) among young people is already high in many hard-hit countries around the world, particularly in sub-Saharan Africa. In

Botswana, for example, between 30 and 45% of young women are estimated to be living with HIV.⁴

- ✓ High rates of HIV infection among young people are, for the most part, occurring in countries in which young people represent a high percentage of the population. Sub-Saharan Africa is one of the youngest regions of the world. Over half of its population is estimated to be under the age of 18 (with one in four people between the ages of 10 and 19).^{5,6} The proportion of young people in many countries highly-affected by HIV/AIDS is projected to increase, due in part to the effects of the epidemic.
- ✓ The confluence of high HIV/AIDS prevalence and disproportionately young populations results in a concentration of infections among youth. As such, it has vast and long-term consequences for the course of the epidemic and for the future of highly-affected countries. Already it is estimated that life expectancy will fall by the year 2010 to levels not seen since the beginning of the 20th century. HIV/AIDS is also expected to affect population growth, sometimes dramatically.^{7,8}
- ✓ In addition to these demographic effects, there are also broader, multisectoral implications of the epidemic. The economic development of nations has been affected, with current or projected impacts on communities, families, and employers. Health care expenditures will continue to rise. The gross domestic products (GDP) of hard-hit nations are expected to be reduced.^{3,9}

These impacts are expected to worsen, with projected numbers of new HIV infections in several seriously-affected countries showing significant increases, even under "best case" scenarios.^{9,10}

Despite the current and projected impact of the epidemic on young people, there is evidence that prevention efforts have already succeeded at reducing HIV transmission in some areas and for certain populations. Where HIV transmission has been reduced, the greatest reductions are often seen among young people. In addition, projection models demonstrate that even modest changes in behavior can significantly reduce HIV/AIDS incidence and prevalence among young people.

INTRODUCTION

This issue brief provides an overview of the impact of HIV/AIDS on young people around the world, generally defined as those between the ages of 10 and 24. It uses a variety of sources and studies. Readers are cautioned that global data sets and studies specific to young people are in short supply; therefore, country- or community-specific information is often used to illustrate key points.

Because of its focus on young people, this brief does not discuss mother-to-child transmission (MTCT); however, MTCT remains a major route of transmission in some parts of the world and contributes to the number of young people living with HIV or at increased risk of infection.

CURRENT IMPACT

HIV/AIDS prevalence among young people is already high in many countries around the world, and young people continue to make up a significant proportion of new infections.

Prevalence and Incidence

There are an estimated 40 million people living with HIV/AIDS worldwide, more than a third of whom (38%) are under the age of 25. Teens and young adults between the ages of 15 and 24 represent almost a third—12.4 million—of the global total of people living with HIV/AIDS.² They account for 33% of adults ages 15-49 estimated to be living with HIV/AIDS.

Of the 5 million people newly infected with HIV in 2001, almost 6 in 10 (58%) were under the age of 25. Those in the 15-24 year old age group represented 4 in 10 of these new infections (see Figure 1). Young people ages 15-24 account for half of all new infections among adults ages 15-49. This amounts to almost 6,000 infections per day among 15-24 year olds, or approximately one every 15 seconds. When infections among children under the age of 15 are factored in, an estimated 8,000 young people become infected with HIV every day worldwide.¹⁻³

In regions where the epidemic is mostly related to heterosexual transmission, new HIV infections occur disproportionately among girls and young women. In other regions where injection drug use and male-to-male sexual contact are primary modes of transmission, rates of new infections among young men exceed or are equal to those among young women.^{2,5}

Overall, most people newly infected with HIV or already living with HIV/AIDS are in sub-Saharan Africa. Among young people, approximately three-quarters (76%) of those already infected live in this region⁵, as do over 90% of the world's AIDS orphans (some 12.1 million children). Children orphaned by AIDS are more likely to become or remain impoverished and to become infected themselves.^{11,12} Approximately 15% of young people living with HIV/AIDS are in the East/South Asia and Pacific region of the world (see Figure 2).⁵

In sub-Saharan Africa, as many as 11% of young women and 6% of young men, ages 15-24, are estimated to already be living with HIV/AIDS. Within the region, Botswana and Lesotho have the highest proportions of infected youth. In Botswana, for example, up to 45% of young women and 19% of young men, ages 15-24, are estimated to be

Figure 1: New HIV Infections in 2001 by Age Group (with % of total)

Source: UNAIDS²

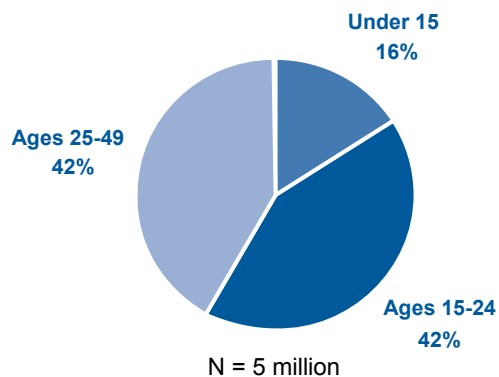


Figure 2: Young People Ages 15-24 Living with HIV/AIDS by Region and Sex --1999

Source: UNICEF⁵

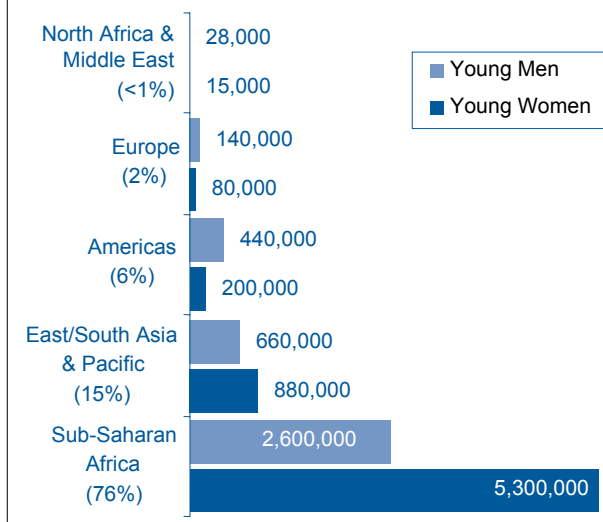


Figure 3: Low & High Estimates of Proportion of 15-24 Year Olds Living With HIV/AIDS in Selected Countries, 2001
Source: UNAIDS⁴

	Female	Male
	Low – High	Low – High
Botswana	30% - 45%	13% - 19%
Lesotho	25% - 51%	11% - 23%
South Africa	21% - 31%	9% - 13%
Zimbabwe	26% - 40%	10% - 15%
Namibia	19% - 29%	9% - 13%
Zambia	17% - 25%	6% - 10%
Malawi	12% - 18%	5% - 8%
Mozambique	11% - 19%	4% - 8%
Central Afr Republic	11% - 16%	5% - 7%
Kenya	12% - 19%	5% - 7%
Cambodia	2% - 3%	0.8% - 1%
Haiti	3% - 7%	3% - 5%
Brazil	0.4% - 0.6%	0.5% - 0.8%

living with HIV.⁴ In Lesotho, up to 51% of young women and 23% of young men are estimated to be living with HIV (see Figure 3).⁴

Countries in other regions of the world also have high HIV/AIDS prevalence rates among youth. In Cambodia, as many as 3% of young women are estimated to be infected, as are 1% of young men; in Haiti, HIV prevalence is as high as 7% for young women and 5% for young men.⁴

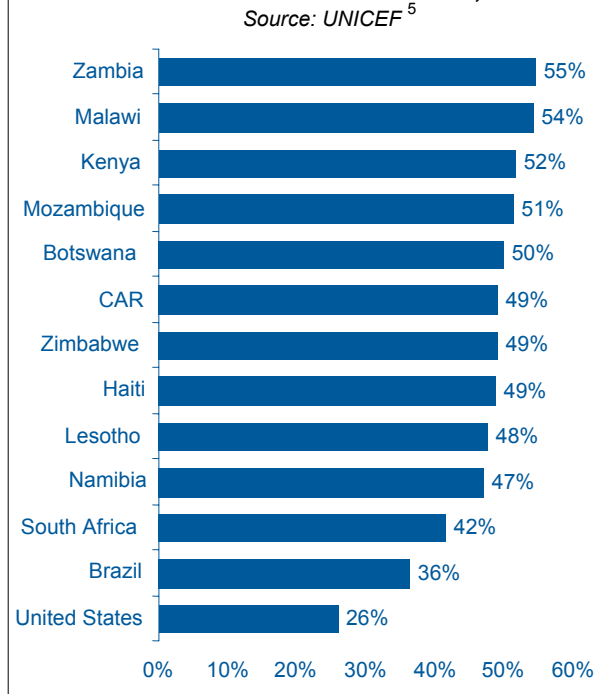
Even in developed countries such as the U.S. that have had important successes in prevention and treatment leading to reductions in new infections, morbidity, and mortality, recent data indicate a rise in incidence among some young populations and young people under the age of 25 continue to represent as many as half of new infections.¹³

Nations with Young Populations Hard Hit

High rates of HIV infection among young people are, for the most part, occurring in countries with very young populations. Sub-Saharan Africa is one of the youngest regions of the world. Over half of its population is estimated to be under the age of 18 (with one in four people between the ages of 10 and 19).^{5,6} In Zambia, Malawi, Kenya, and Mozambique, over half of the population is below the age of 18. In South Africa, more than 40% of the population is below the age of 18.

Hard hit countries in other regions of the world also have young populations. Almost half of Haiti's

Figure 4: Percentage of Population Below 18 in Selected Countries, 1998
Source: UNICEF⁵



population is below 18. By comparison, about a third of the world's population is below the age of 18, and slightly more than one quarter of the U.S. population is below 18.⁵ (See figure 4.)

The confluence of high HIV/AIDS prevalence and disproportionately young populations results in a concentration of infections among young people that has vast and long-term consequences for the course of the epidemic and for the future of many highly-affected countries.

The National Intelligence Council, part of the Central Intelligence Agency, has identified a number of countries with "youth bulges" (defined as those in which the ratio of 15-29 year olds to 30-54 years exceeds 1.27).¹⁴ Most of these are in sub-Saharan Africa, and correspond to those countries with already-high prevalence of HIV among young people. Of the 25 sub-Saharan countries with youth bulges, over half have prevalence rates of HIV among young males and/or females higher than 10%.⁴

Analysis of data from the U.S. Census Bureau⁸ indicate that the youth bulges in many highly-affected countries, including Botswana, Burundi, Lesotho, and Mozambique, will increase, due in part to the effects of the epidemic (as those in slightly older cohorts die prematurely).

PROJECTED IMPACT

The HIV/AIDS epidemic is expected to have far-reaching demographic impacts on many nations, affecting the population structures of hard hit countries.⁷⁻⁹ Teens and young adults will be increasingly affected.

Prevalence Among Young People

The U.S. Census Bureau estimates that HIV/AIDS prevalence rates among adults ages 15-49 will continue to rise at least through 2010 in many hard hit countries in Africa, Asia, and Latin America, as will the number of people living with HIV/AIDS in these countries.⁸

The number of young people living with HIV/AIDS is also expected to grow over the next decade. Analysis of U.S. Census Bureau data indicates that if current trends persist, the global total of young people living with HIV/AIDS could rise from the current estimate of 12.4 million to 21.5 million in 2010, a more than 70% increase (see figure 5).¹⁵ This estimate is based on analysis of data from 49 highly-affected countries in Africa, Asia, and Latin America, which represent approximately 75% (or 9.3 million) of the global estimate of young people currently living with HIV/AIDS.

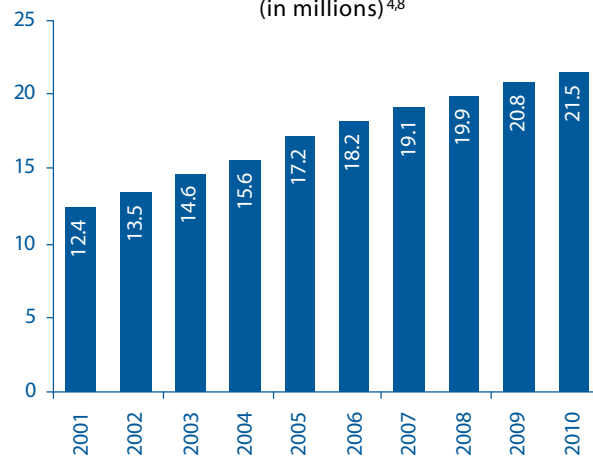
AIDS-Related Deaths

One of the most direct measures of the epidemic's impact is on mortality. In countries where 15% or more of all adults are estimated to be infected with HIV – nine countries as of the end of 2001 – it has been projected that at least one-third of boys now aged 15 will die of AIDS unless treatment improvements or a vaccine is introduced.^{4,10,16} In Botswana, where prevalence is particularly high, a 15 year-old now has about an 80% chance of dying of AIDS.^{3,10,17}

Deaths due to HIV/AIDS are premature deaths, and many who die from AIDS-related causes were infected as teens and young adults.¹⁶ UNAIDS estimates that the survival time from HIV infection to death in sub-Saharan Africa is approximately 8 to 9 years.¹⁸ As such, most of those who die from AIDS-related causes between the ages of 20 and 34 were infected an average of 8 to 9 years earlier, as teens and even younger adults. U.S. Census Bureau data from 50 highly-affected countries were analyzed to assess this impact.⁸

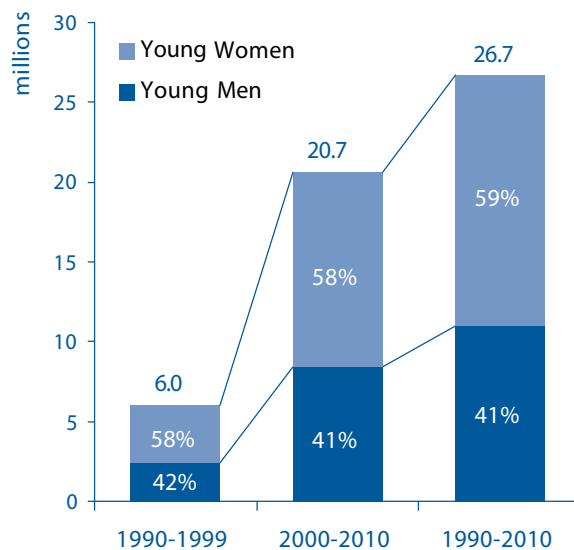
In these 50 countries, between 1990 and 2010, it is projected that a total of 26.7 million people ages 20 to 34 will have died from AIDS-related causes (see figure 6). The majority (59%) of these deaths

Figure 5: Estimated Number of Young People, Ages 15-24, Living with HIV/AIDS Globally--2001 through 2010* (in millions)^{4,8}



*Kaiser Family Foundation analysis of U.S. Census Bureau Data

Figure 6: Estimated Number of Deaths Among 20-34 Year Olds in 50 Hard Hit Countries, 1990 - 2010*



*Kaiser Family Foundation analysis of U.S. Census Bureau Data

will be among young women. In addition, most of these deaths will occur in the current decade (78% or 20.7 million between 2000 and 2010).

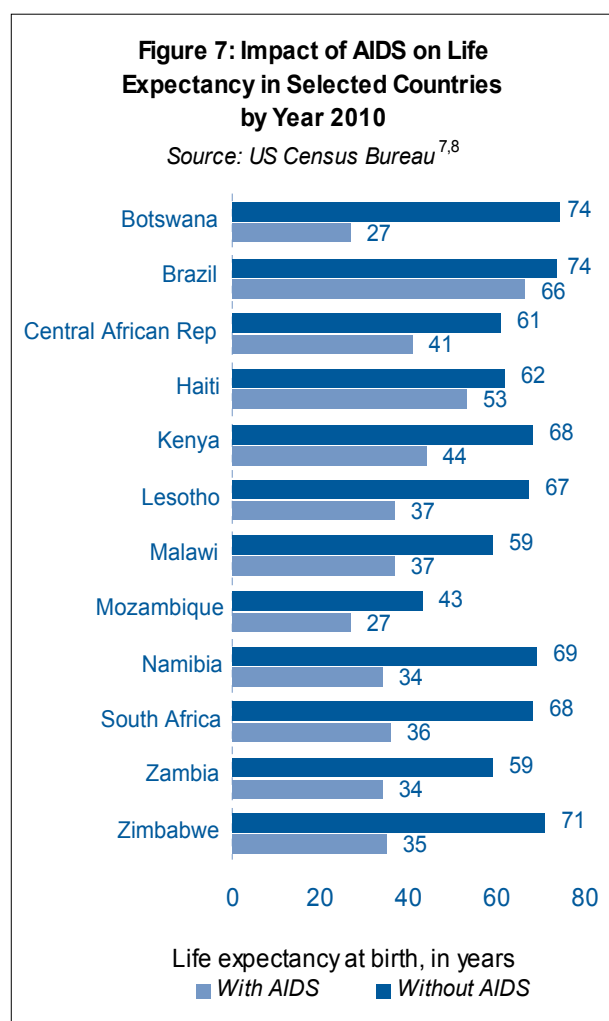
Population Growth Rates

In addition to the direct measures of HIV/AIDS prevalence and HIV-related mortality, the epidemic will also have broader population affects. Growth rates for populations in many countries have al-

ready been reduced. The U.S. Census Bureau estimates that AIDS will result in negative population growth in several countries before the year 2010, including – Botswana, Lesotho, Mozambique, South Africa, and Swaziland. Several other countries are estimated to experience flat growth rates by the year 2010, including Namibia and Zimbabwe. Population growth rates are also expected to be affected in Latin America, the Caribbean and Asia.^{7,8}

Life Expectancy

HIV/AIDS has also affected life expectancy, the average age to which a person born today can be expected to live. Due to HIV/AIDS, life expectancy in many hard-hit countries has already been reduced and could drop below age 30 in some countries by the year 2010, reversing steady gains over the last century (see figure 7).^{7,8}



Life expectancy in Botswana, for example, is projected to decrease to 27 by 2010, a net decrease of 47 years due to AIDS. In Zimbabwe, life expectancy is projected to be 35 in 2010, a net decrease of 36 years.⁸

Broader Multisectoral Impacts

Finally, HIV/AIDS has also negatively impacted the economic well-being, social stability, and structure of many nations, including:

- ✓ The gross domestic product (GDP) in high-prevalence countries is expected to decline (about 1% in countries where 15% or more of the population is infected). In South Africa, the GDP forecasted for the year 2010 is expected to be reduced by 17% because of AIDS.^{3,14}
- ✓ Education systems will be adversely affected because of teacher deaths.¹⁹ UNAIDS reports that as many as 1 million children and young people in sub-Saharan Africa lost their teachers to AIDS in 2001.^{3,19}
- ✓ Economies are expected to slow or shrink.²⁰
- ✓ Poverty is expected to deepen, particularly among children orphaned by AIDS.²⁰
- ✓ Crime, political volatility, and dissatisfaction will rise, at least in part because of the huge cohort of children orphaned by HIV/AIDS.¹⁴
- ✓ Food security will be threatened as production slows and incomes decline.²⁰
- ✓ Governments will face increased AIDS-related health expenditures, loss of leaders and workers, and a resulting decline in taxable income.^{20,21}

ADOLESCENT VULNERABILITY

Several factors make youth particularly vulnerable to HIV infection including their age, biological and emotional development, and their financial dependence. In many parts of the world, they have limited access to health care services and reliable information about sexual activity and its implications. They are often unlikely or unable to protect themselves appropriately as they demonstrate an inclination to sexual experimentation, often with multiple partners.¹⁷

These sexual behaviors, and sex in conjunction with drug and/or alcohol use, may increase the like-

likelihood of becoming infected with HIV. In addition, young people's sense of invulnerability ("It can't happen to me"), combined with lack of experience, may leave them unaware of the consequences of their actions and therefore less likely to take precautions against risk of infection.⁶

Awareness and Knowledge

Surveys indicate that although many young people across the world have now heard about the HIV/AIDS epidemic, awareness is not universal. UNICEF reports that in more than a dozen countries, over half of young people had never heard of AIDS.⁵

In addition, awareness does not necessarily translate into practical knowledge: a significant percentage of at-risk young people may still be unaware of how to protect themselves or harbor misconceptions about HIV transmission. Surveys in 17 countries found that one in two adolescents could not name a single method of protecting themselves from HIV infection (with girls knowing less than boys in all instances).²² Researchers working in Mozambique found that 74% of young women and 62% of young men (ages 15-19) were unaware of any way to protect themselves from HIV.¹¹ A recent survey of young South Africans found high levels of concern about HIV/AIDS, but many still did not know important facts about the disease or how to prevent or treat HIV infection.²³

Awareness of HIV/AIDS among young people may also not translate into a perception of personal risk, even among those in countries with very high prevalence.⁶ This may in part be due to a lack of visibility of HIV-positive youth, with most young people living with HIV not knowing they are even infected.²

Health experts note that the availability of appropriate youth-targeted information varies across regions and within nations and communities. Social, religious and economic influences lead to widely-varying opinions on how and what to provide to young people concerning HIV prevention.^{10,23,24} In some places, therefore, young people may be more vulnerable because they are less likely to know enough about HIV to protect themselves.¹⁰

Lack of information, particularly when it relates to sexual behavior, can bring unintended and potentially dangerous results. For example, some heterosexual youth, to avoid pregnancy and maintain virginity, may engage in alternatives to vaginal intercourse such as anal or oral sex, believing these practices are not "having sex" (and therefore carry

no risk, despite the fact that anal sex is the one of the most efficient ways to transmit HIV and oral sex, though not as risky, is not entirely safe).^{25,26}

Other Sexually Transmitted Diseases

Being infected with another sexually transmitted disease (STD) also increases the likelihood of both acquiring and transmitting HIV.²⁷ The prevalence of STDs other than HIV among youth is high.²⁸ A broad, cross-national survey of STD data among developed countries (North American, European, and Scandinavian countries plus Russia and Romania) found that syphilis, gonorrhea, and chlamydia disproportionately affect adolescents and young adults, with generally higher incidence among females than males.²⁹

In the U.S, it is estimated that two-thirds of 12 million cases of STDs diagnosed annually are among people under the age of 25.³⁰ In England and Wales, cases of gonorrhea and syphilis—again documented disproportionately among young people—have hit their highest levels in more than a decade.²

Data from developing countries are more limited. The World Health Organization (WHO) reports that age-specific data from developing countries show peak incidence of STDs among those 15-29. Studies of gonorrhea in several African and Middle Eastern nations found the highest levels of infection among those in this same age group, with the highest among those aged 15-19.²⁷

Socioeconomic Factors

Most young people at risk for HIV infection or already living with HIV/AIDS reside in the world's poorest regions. Their vulnerability to HIV operates within a broader context of poverty, which may include lack of access to education, economic opportunities, and health-related services.

Formal educational systems can contribute directly and indirectly to the impact of HIV on young people. Teachers and schools can improve awareness of risk and teach strategies for protection through good-quality sexual health education programs, which help delay initiation of sex and protect sexually-active youth from HIV, STDs and pregnancy.³¹

However, educational systems in many countries, already struggling before the spread of AIDS, have been significantly affected by the epidemic. As noted previously, about 1 million African children and young people are estimated to have lost their teachers to AIDS in 2001.³ Prior gains in school

enrollment, resulting from increased investments by many developing countries, have been adversely affected as teachers succumb to AIDS or leave to seek health care.⁵ Students who are infected may be stigmatized and/or pressured to leave.⁵ Students orphaned by AIDS are often unable to pay educational fees and, if forced to leave school, face increased risk of poverty and HIV infection.⁵ Girls may be particularly affected by this phenomenon because they are often the first to be taken from school when sick parents need help or their families need income.¹¹

Lack of economic opportunity is also an important contributor to HIV-related vulnerability. This is particularly true of girls and young women, who have less access to and control over income, property, land, and credit.^{25,32} Though the extent of gender disparities in economic opportunity vary from country to country, it is ubiquitous.²⁵

Without options, young women may exchange sex for money, shelter, or safety—often under threat of violence.^{25,32} Studies of unmarried adolescents in several sub-Saharan countries have found that 13-38% of girls have received or given money or gifts in exchange for sex.⁶ Alternatively, they may be forced to remain in relationships with partners who are violent or are believed or known to be infected with HIV because they have nowhere else to go.³³ Young women often lack the power to insist on the use of condoms.¹⁰

Lack of economic opportunity is not just a problem for women. Gay and bisexual (and sometimes heterosexual) boys and young men in many countries trade sex for money, drugs or shelter with wealthier men—both for survival and to enhance income.³⁴⁻³⁷

Systemic disparities in access to health care for young people can heighten vulnerability to HIV. Many of the countries hardest hit by HIV/AIDS lack sufficient infrastructure and resources to deliver needed HIV-related services, including prevention and treatment services, HIV counseling and testing, and mental health care.¹⁰ In addition, there are some persistent barriers to these health services for youth in developing and developed nations alike—lack of privacy and confidentiality, staff insensitivity to young people's special needs and perspectives, lack of affordable services and lack of services geared toward adolescents ("teen friendly").^{12,38} Health-care access may worsen as the burden of caring for so many millions of people suffering from AIDS-related illnesses takes an increasing toll on health infrastructures.^{14,39}

Stigma may also play a role in young people's willingness to seek services.^{22,40,41} Young women and girls, for example, may avoid health care services, including HIV testing and treatment for STDs, because of fear of stigmatization or even of violence—particularly if it becomes known that they're sexually active (before or outside of marriage) or infected with HIV.²⁵

THE MOST VULNERABLE

Certain subpopulations of youth have been identified as bearing a disproportionate share of HIV's proliferation and/or are at increasing risk: young women and girls, young men who have sex with men, injecting drug users, sex workers and children who have been orphaned by AIDS are at a high or increasing risk of becoming infected.²

Young Women and Girls

Women comprise an increasing proportion of adults living with HIV/AIDS, rising from 41% in 1997 to 50% in 2001.^{11,31,32,42} In sub-Saharan Africa, women represent more than half of all people living with HIV/AIDS.⁴

Prevalence of HIV is typically higher among young women in sub-Saharan Africa,³³ who represent the majority of young people living with HIV/AIDS in that region and in Asia (see Figure 2).⁵ Among women, peak HIV prevalence is around age 25, while in men it occurs 10 to 15 years later and generally at lower levels.⁷ Infections among South African girls, for example, peak at ages 15-19; among boys they peak at ages 20-24.⁹

In some of the most affected countries, the rates of new HIV infections among girls are as much as five- to six-times higher than those among boys.^{3,31,32} In Botswana, for example, up to 45% of women ages 15 to 24 are estimated to be HIV-positive, about twice the proportion of HIV-positive men in the same age group (see figure 3).⁴

This trend is not unique to the developing world, although it is most pronounced there. In the U.S., women now represent 30% of new HIV infections and an increasing proportion of new AIDS cases as well (rising from 7% in 1985 to 25% in 2001).^{43,44}

Biologically, the risk of becoming infected with HIV during unprotected vaginal intercourse is greater for women than men.^{10,17,45} The immaturity of young women's reproductive organs makes them even more vulnerable than mature women to HIV

infection by providing enhanced opportunity for exposure and infection.¹⁷

Cultural and economic factors also contribute to increased vulnerability of young women and girls. For example, lack of economic autonomy may induce young women to partner with older men for protection and support.³³ Growing evidence suggests that sexual relationships between older men and younger women are responsible for much of the gender disparity between young women's and men's infection rates and for the increasing numbers of infections among younger girls.^{11,31,33}

Young women who have sex with older partners are at greater risk for infection because these older partners are more likely to be infected than age-equivalent partners would be.¹⁰ In some countries, younger and younger girls are put at risk because some men are seeking partners who are not infected, fueled in part by an expectation that younger girls are less likely to be infected or by a misguided belief that having intercourse with a virgin will cure or prevent AIDS.^{42,46}

Condoms, though effective in reducing the risk of HIV transmission, require that the male partner agree to their use. Insisting that a partner (or husband) wear a condom might be interpreted as a challenge to long-accepted rules, and could raise questions about loyalty, fidelity, and trust.²⁵

As mentioned previously, sexual violence and coercion put women at risk of infection and may keep those already HIV-positive from seeking available care. UNAIDS reports that some new cases of HIV infection among women are caused by gender-based violence in their homes, schools, work places and social spheres.^{10,31} In South Africa, for example, a woman who made her HIV infection public was stoned to death by neighbors who felt she had brought shame upon their community.⁴⁷

Young Gay and Bisexual Men

Because of the efficiency of anal intercourse as a mode of transmitting HIV, men who have unprotected sex with men are at a relatively high risk for HIV. Worldwide, approximately 5 to 10% of all HIV infections are due to sexual transmission between men.³⁷ UNAIDS estimates that male-to-male sexual transmission is a predominant risk factor for HIV in several countries, including the U.S., Brazil, Costa Rica, and Mexico, and may be playing an increasing role in Eastern Europe.^{2,31} The U.S. Centers for Disease Control and Prevention (CDC) estimates that half of new AIDS cases reported in

the U.S. in 2000 among males ages 13 to 24 were among men who have sex with men (MSMs).⁴⁸

Stigma, social exclusion and lack of information can result in increased risk-taking among MSMs.^{10,37,40} These factors make it difficult to obtain accurate data on the extent of MSM behaviors and related risks.¹⁰ Many societies outlaw homosexual behavior or in some way officially condemn or ignore its existence. In Vietnam, for example, AIDS cases among MSM are simply not reported.⁴⁹

Many young MSMs may also be sexually involved with women, acting as "viral bridges" by introducing HIV into the larger population. A UNAIDS survey in Cambodia found that 40% of self-identifying MSMs also reported having sex with women in the month before being surveyed.² Research in Budapest found that the percentage of men who identified themselves as gay or bisexual but who had sex with a female at least once was high (77%), with 26% reporting sex with a female within the last year.⁵⁰ This same group reported a low rate of condom use for vaginal intercourse (23%).⁵⁰ Similar rates of bisexual behavior were found in Russian³⁴ and Brazilian¹⁰ studies.

Despite encouraging reductions in unsafe sex practices in the early 1990's, risky behaviors and HIV infection rates among young MSMs may be on the rise again in the developed world. A recent survey of 23-29 year old MSMs in six U.S. cities found high HIV prevalence rates among whites (7%), Hispanics (14%), and particularly Blacks (32%).⁵¹ An earlier sample of younger MSM (15-22) in seven U.S. cities found a 7% overall HIV prevalence rate, with higher rates among Black (14%) and Hispanic (7%) youth than among whites (3%).^{51,52} Public health experts have expressed concern that recently-noted outbreaks of STDs among MSMs may signal a resurgence of risk-taking among older MSMs and a lack of awareness or concern among younger MSMs.^{53,54}

Young Injection Drug Users

Intravenous injection is the quickest and most efficient route of HIV transmission because infected blood is delivered directly into a user's blood stream. Approximately 10% of HIV infections globally are due to injection drug use.⁵⁵ Eastern Europe and Central Asia are experiencing a rapid spread of HIV due largely to high numbers of youth injecting drugs.^{10,56}

In the Russian Federation, where HIV is predominantly transmitted through injection drug use, HIV is concentrated largely among 18-30 year olds;

the average HIV-infected drug user is 24. A 1999 survey of 15-16 year-olds in Moscow found that 6% admitted to having used heroin at least once in their lives; also in 1999, 40% of clients of a St. Petersburg drug treatment program were young people, up from 13% two years earlier.¹⁰

In Central Asia, 70% of injection drug users are under age 25.⁵⁶ Canada, China, Latvia, Malaysia, Moldova, Russia, Ukraine and Vietnam reported that more than half of all new HIV infections in 1998-1999 occurred among injection drug users, an increasing percentage of whom are young people.^{17,57}

Children and Youth Orphaned by AIDS

Children orphaned by AIDS present a significant challenge. Since the epidemic began, an estimated 13.2 million children—most of whom live in the developing world—have lost their mothers or both parents to AIDS.¹²

Prior to the onset of the AIDS epidemic, approximately 2% of children in developing countries were orphans. By 1999 some African countries had more than 10%. In 2000, one child every 14 seconds became an orphan because of AIDS.¹¹ This impact is expected to worsen. The United States Agency for International Development (USAID) has estimated that as many as 44 million children will be orphaned by AIDS by 2010.¹²

The impact of HIV/AIDS on children begins well before the death of their parents. Children living in households headed by HIV-positive parents face increased risk of hunger, malnutrition, material deprivation, reduced access to school and health care, and increased emotional distress.⁵⁸

After parents die, in much of the world the burden for caring for orphans falls on families and communities—and particularly on young women. However, these care networks are being overwhelmed by the magnitude of the needs put upon them, leaving many children vulnerable to malnutrition, exploitation and abandonment.¹⁴ UNAIDS reports that orphans living with extended families or in foster care are more prone to discrimination, including limited access to health, education and social services.¹¹ As alternatives, some children maintain their own households or assume other adult burdens; others take to the streets.¹² Without support systems and resources, they are at substantially increased risk of malnutrition, abuse, illness—and HIV infection.¹⁰

Communities and societies are impacted as well. The U.S. National Intelligence Council notes

that the large number of children orphaned by AIDS, located largely in countries that are already disproportionately young, will strain family systems and contribute to crime and political instability.¹⁴

Sexually Exploited Children

The sexual exploitation of children also contributes to increased incidence of HIV transmission. Prostitution, trafficking, child pornography and forced marriages all heighten risk of HIV infection for children and communities within which such practices occur.⁵⁹

Approximately 1 million children enter the world's sex trade every year,⁵⁹ placing them at greater risk for HIV infection.⁶⁰ Rates of HIV infection among young sex workers can be high. For example, studies have found HIV prevalence of 17% among sex workers in urban Nepal, 72% for sex workers under 18 in Mumbai, India, and 30% for sex workers aged 13-19 in Cambodia.^{11,60} Younger sex workers may be particularly vulnerable because of their inexperience in negotiating condom use and, as previously mentioned, because their clients may assume that sex with a child or virgin decreases their risk of infection or may even have preventive or curative powers against HIV.^{25,29,42}

Sexual exploitation of children is exacerbated by the large number of children orphaned by AIDS. These children, parentless and in poverty, increase the pool of those young people vulnerable to exploitation or, in some cases, dependent upon trading sex for survival.⁵⁹

Trafficking in children may also serve to increase the spread of HIV. Reports of children trafficked across continents and oceans to meet "demand" suggest the consistency with which the practice occurs and the potential it brings of increasing the spread of HIV. In one case, over 1,000 children were sent from China, Laos, Malaysia, Thailand and Viet Nam and finally to Atlanta, Georgia, to work as prostitutes.⁵⁹

PREVENTION

Several recent prevention reviews demonstrate effectiveness in reducing risky behaviors and HIV transmission.⁶¹⁻⁶⁴ Few large-scale prevention efforts, however, have been geared toward youth, and youth may need different prevention strategies than older adults. Where they do exist, such efforts have been shown to lead to increased knowledge about HIV/AIDS, delays in sexual activity, and increased condom use among those having sex for the first time. Prevention efforts have also led to reductions in HIV transmission among some populations.^{61,62}

Analyses indicate that because most HIV infections occur among young people, HIV prevention directed at youth is a crucial and effective strategy.¹⁷ In fact, where national prevention efforts have been most successful – in Uganda and Thailand – young people are often the first to respond to prevention interventions and to show positive results.⁶⁵ In Uganda, for example, HIV prevalence declined significantly among pregnant women, with the greatest decline among those in the youngest age group (15-19 years old). In Thailand, HIV prevalence rates declined among young military recruits (a proxy of national success for Thailand's HIV prevention campaign).

In addition, projection models demonstrate that even modest changes in behavior - such as increased condom use and STD treatment – can significantly reduce HIV/AIDS prevalence.⁹

A new analysis of the potential impact of different prevention interventions, including increased condom use and a reduction in the number of sexual partners, among young people ages 15-19 years old in South Africa projects significant reductions in HIV incidence and prevalence over time.⁶⁶

CONCLUSION

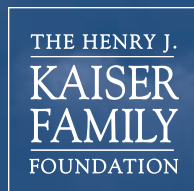
The impact of the epidemic on young people is expected to grow, particularly in hard hit countries which already have very young populations. Therefore, the level of available resources and how resources are used will continue to challenge global and national leaders.^{3,67}

Projections of demographic shifting over the next decade and beyond show that—absent significantly enhanced prevention and treatment efforts, and perhaps the introduction of new technologies including microbicides and vaccines—the combination of young populations and the spread of HIV will result in the continued growth of the HIV/AIDS pandemic. Prevention interventions directed at youth will therefore be critical to altering the future course of the epidemic.

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The Henry J. Kaiser Family Foundation

2400 Sand Hill Road
Menlo Park, CA 94025
(650) 854-9400 Fax: (650) 854-4800

Washington Office:

1450 G Street NW, Suite 250
Washington, DC 20005
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