

TIME TO INTERVENE: PREVENTING THE SPREAD OF HIV/AIDS IN THE MIDDLE EAST AND NORTH AFRICA

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The number of people living with HIV/AIDS in the Middle East and North Africa (MENA) region increased from 87,000 in 2003 to 152,000 in 2005, according to United Nations' estimates.¹ While these numbers may look small compared to about 40 million people who are living with HIV worldwide, the number of infections appears to be increasing rapidly in the region. More important, the low number of HIV infections does not mean low risk.

MENA's conservative culture—in which sexual relationships outside marriage are forbidden—has been partly responsible for keeping the rates of HIV infection relatively low. The same conservative norms, however, often contribute to a general attitude of denial, combined with strong stigmatization and social ostracism of people living with HIV/AIDS. Because HIV infection is concentrated for now among people who are often perceived as socially deviant, the AIDS epidemic has been shrouded in ignorance—and that ignorance does not help prevent the spread of the infection.²

The purpose of this policy brief is to raise awareness among MENA's decisionmakers and opinion leaders about the urgent need for action by presenting some of the warning signs, risks, and vulnerabilities that face the region. The current low rates of HIV infection and concentration

among specific groups in MENA offer the opportunity to develop policies and programs to prevent an epidemic that could have far-reaching social and economic implications.

Low Prevalence but Not Low Risk

MENA's relatively low HIV prevalence rate—estimated to be around 0.1 percent to 0.2 percent among adults ages 15 to 49—can be attributed in part to the region's conservative social and cultural norms, which discourage premarital sex, encourage faithfulness within marriage, and include the universal practice of male circumcision. Researchers have long noticed that countries with higher rates of male circumcision have lower rates of HIV infection. The role of male circumcision as a prevention measure is confirmed in recent clinical studies in South Africa, showing that circumcised men were 60 percent less likely than uncircumcised men to contract the virus from HIV-infected partners.³

MENA's conservative cultural practices, however, do not mean that MENA countries are at low risk of a generalized HIV/AIDS epidemic, as some people do engage in risky behaviors. The HIV infection is now spreading in every country in the region and at alarming rates in countries such as Algeria, Iran, and Tunisia, where the number of people living with HIV is estimated to have doubled between 2003 and 2005 (see Table 1).

In MENA countries, HIV/AIDS generally appears to be concentrated in groups that practice high-risk behaviors, such as sex workers, men who have sex with men, and injecting drug users. However, global experience has shown that the spread of the HIV infection from these groups to the general population can occur fairly rapidly, because individuals engaging in high-risk behaviors can pass the infection to their spouses and other sexual partners.

The limited data on HIV/AIDS in MENA point to the expansion of HIV in the region. During 2002-2004, for example, levels of HIV infection among tuberculosis patients in the region

Table 1

People Living With HIV/AIDS in Selected Countries

	Number of adults and children living with HIV/AIDS		Percent of adults (15-49) living with HIV/AIDS
	2003	2005	2005
Algeria	9,800	19,000	0.1
Egypt	4,300	5,300	0.1
Iran	37,000	66,000	0.2
Lebanon	1,600	2,900	0.1
Morocco	17,000	19,000	0.1
Tunisia	4,400	8,700	0.1

SOURCE: UNAIDS, 2006 *Report on the Global AIDS Epidemic, Annex 2* (Geneva: UNAIDS, 2006).

Box 1

Facts About HIV/AIDS

AIDS—acquired immunodeficiency syndrome—is caused by infection with the human immunodeficiency virus (HIV). Once infected with HIV, a person will be HIV positive for life. Without treatment, the virus over time will weaken the body's immune system and lead to a variety of AIDS-related illnesses. Among the most common of these is tuberculosis, which is the leading cause of death for people infected with HIV.

There is no cure for HIV. However, antiretroviral therapy (ART) can help keep the virus in check by slowing its replication in the body. Slower replication rates lessen the burden on the immune system, thereby reducing HIV-related illnesses and allowing patients to live longer, higher-quality lives.

HIV is spread through blood, semen, vaginal secretions, and breast milk. The most common method of transmission is unprotected sexual intercourse with an HIV-positive partner. The presence of other sexually transmitted infections, such as gonorrhea or herpes, increases the likelihood of infection during sexual contact.

Other routes of transmission include transfusions of HIV-infected blood or blood products; tissue or organ transplants; use of contaminated syringes and needles (or other skin-piercing equipment); and mother-to-child transmission during pregnancy or birth. HIV cannot survive long outside the body, and it cannot penetrate unbroken skin. HIV is not transmitted by casual physical contact such as kissing, holding hands, or sneezing or coughing. It is not spread by mosquitoes or other insects. It can be killed with bleach, strong detergent, and very hot water.

The long period (two to 10 years) between infection and the onset of AIDS symptoms means that few infected people are recognizably ill, but a much larger and hidden portion of the population without symptoms are capable of spreading infection. Whereas men were most affected at the beginning of the epidemic, women's rates of new infection now surpass men's in many countries around the world.

SOURCES: International Labour Organization (ILO), *An ILO Code of Practice on HIV/AIDS and the World of Work* (Geneva: ILO, 2001); and Peter K. Lamptey et al., "HIV/AIDS Evolving Impact on Global Health," in *Dawning Answers: How the HIV/AIDS Epidemic Has Strengthened Public Health*, ed. Ron Valdiserri (New York: Oxford University Press, 2002).

were rising—reaching 3.3 percent in Yemen, 2.0 percent in Oman, and 1.8 percent in Iran.

Tuberculosis is one of the most common causes of morbidity and the leading cause of mortality in people living with HIV/AIDS.⁴ (Some basic facts about HIV/AIDS are presented in Box 1).

Other warning signs are presented below.

Sexually transmitted infections (STIs).

Untreated STIs (such as syphilis and gonorrhea) in either men or women can lead to an increased risk of HIV transmission. Yet, of the millions of STIs that occur in the region, only a small fraction are

recognized by the individual affected, or diagnosed and treated, thus increasing the risk for sexually active people to become infected with HIV.⁵ Sexual contact is the main mode of HIV transmission in the region.

The limited data on STIs in MENA suggest that the prevalence of such infections is not low in the region. An evaluation of such infections in various populations in Greater Cairo between 1999 and 2000 found a high prevalence of curable sexually transmitted diseases, reaching 36 percent among commercial sex workers and 24 percent among men who have sex with men. In addition, 8 percent of women attending family planning clinics, 5 percent of drug users, and 4 percent of women attending antenatal clinics were found to have at least one STI.⁶ In Morocco, an estimated 600,000 STIs occur each year, and the number of STI cases in Yemen is estimated at 150,000 a year. A group of Yemeni women with sexually transmitted infections was tested for HIV in 2000 and the result showed that nearly 2 percent of them were HIV positive.⁷

Injecting drug use. All MENA countries have reported HIV transmission through the sharing of contaminated needles among injecting drug users. Injecting drug use is the main mode of HIV transmission in Iran and Libya. In Libya, 90 percent of new infections (generally among men) are attributed to injecting drug use. About 50 percent of the injecting drug users who were admitted for detoxification in two hospitals in Tripoli between 2000 and 2003 were HIV positive.⁸ In Egypt, 4 percent of HIV transmissions are attributed to injecting drug use.⁹

According to one assessment, less than 1 percent of all injecting drug users in MENA have access to "harm reduction" interventions that include drug substitution treatment such as methadone, needle exchange programs, and condoms, that can substantially reduce the spread of HIV.¹⁰ Both Iran and Libya have large numbers of injecting drug users among their prison populations, who reportedly have high rates of HIV infection. Algeria, Iran, Lebanon, and Libya have developed programs for HIV/AIDS interventions in prison settings. Iran has adopted some pioneering measures in its prisons that are recognized by the United Nations Office on Drugs and Crime as a model to extend to other countries (see Box 2).

Population movements. Globally, HIV/AIDS is more prevalent among mobile populations such as truck drivers and migrants, who generally live under conditions that could trigger high-risk behaviors, such as having contact with commercial sex workers. MENA has large movements of people, including the migration of North Africans and Turks to Europe and the migration of Egyptians, Jordanians, and Yemenis to the Gulf states where large numbers of foreigners from other parts of the world also live. According to the health ministry in Saudi Arabia, the cumulative detected number of HIV/AIDS cases in that country reached nearly 9,000 by the end of 2004, and foreigners accounted for three-quarters of the cases.¹¹

The Gulf countries generally require labor migrants and their families to be tested to prove their negative status prior to granting them entry visas, and foreign workers who are found to be HIV positive are sent back to their home countries. The results of migrant testing underscore the spread of HIV infection in the region. For example, HIV prevalence among Yemeni travelers seeking visas to work abroad increased from 0.0 percent in 1995 to 0.17 percent in 1996, and to 1.19 percent in 2000.¹²

Men who have sex with men. In the MENA region, men who have sex with men are invisible due to a combination of inadequate surveillance data and strong sociocultural taboos against sex between men. As a result, little is known about the extent of sex between men as a factor in HIV transmission in the region. Lebanon and Morocco have been relatively open about this and are trying to develop outreach programs targeting this group. Egypt has conducted research on men who have sex with men, but has not established any HIV interventions targeting this high-risk population.

The little data available for MENA reveal that men who have sex with men tend to have higher rates of HIV infection than the general population—similar to findings from other parts of the world. A 1999 survey in Jordan revealed that between 4 percent to 16 percent of respondents said that they had sex outside of marriage, of which 10 percent involved men having sex with other men.¹³ An estimated 27 percent of reported HIV infections in Egypt have occurred among men who have sex with men.¹⁴ The trans-

Box 2

Iran's Campaign Against HIV/AIDS

Iran has by far the largest number of people living with HIV infection of any country in MENA. The sharing of contaminated needles among injecting drug users (IDUs) is the prime source of transmission in the country, and infections among IDUs account for around 60 percent of all HIV infections in Iran. Alarmed with its rapid spread and the potential for outbreak among the general population, the government has waged the most vigorous campaign against HIV/AIDS in the region—calling HIV the “plague of the century.”

The government has begun to distribute free needles at pharmacies in its effort to reduce HIV transmission through needle sharing among injecting drug users. Since injecting drug users make up the majority of Iran's prison population, the government has also begun pilot projects to provide free needles in prisons and methadone therapy for treating addicts. Condoms were already available in prisons because of the established “private meetings,” where a married inmate can spend time privately with his wife. All prisoners and their families are regularly required to attend HIV-prevention education sessions.

Services for voluntary counseling and testing (VCT) are available throughout the country. Located in health centers run by the ministry of health and medical education, at least one VCT center is in each urban district. In addition, VCT services are offered in all blood banks and in rehabilitation centers that are part of the penal system.

A behavioral study conducted in 2004 among injecting drug users recruited from a drug treatment center revealed that 41 percent of sexually active injecting drug users had multiple partners, 50 percent never used a condom, and 39 percent reported ever having exchanged money for sex. The study also showed overlapping behavior among injecting drug use, sex work, and men having sex with men.

HIV/AIDS prevention practices are included in mandatory premarital family planning classes. The ministry of health promotes condom use in its public education programs and distributes free condoms through its health clinics for both family planning and STI prevention. Television programs encourage condom use and campaign against the isolation of and discrimination against people who are HIV positive. And the Iranian Red Crescent has mobilized over a million volunteers to help disseminate HIV/AIDS messages.

SOURCES: World Bank, *Preventing HIV/AIDS in the Middle East and North Africa: A Window of Opportunity to Act* (Washington, DC: World Bank, 2005); UNAIDS, “Uniting the World Against AIDS: Iran,” accessed online at www.unaids.org, on Aug. 24, 2006; and World Bank, “Countries Urged to Empower Women, Reduce Stigma, to Fight HIV,” News & Broadcast Online, Aug. 11, 2006, accessed online at <http://web.worldbank.org>, on Aug. 24, 2006.

mission routes of more than a quarter of HIV-positive cases in Iran are reported as unknown and that may well include cases of transmission due to men having sex with men, a practice that is illegal and severely punished.¹⁵

Stigma Is a Major Obstacle in Combating HIV/AIDS

Clearly, it will be difficult to combat the epidemic in the MENA region unless stigma and discrimination are reduced. Stigma and discrimination force those at highest risk of contracting and spreading HIV, such as sex workers, injecting drug users, and men who have sex with men, to conceal their lifestyles, making it difficult to reach them through HIV-prevention programs. Stigma leads these people to avoid counseling and HIV testing or even disclosing their HIV status if they are positive.

There have been reports of discrimination against people who are HIV positive throughout the region, including in the workforce. There also have been reports of suicide by HIV-positive persons and even homicides because of the perceived shame and disgrace that people living with HIV bring to their families and communities.¹⁶ In a survey in Egypt, only one of every four female respondents said that they would be willing to care for a family member who is HIV positive, and only 1 in 10 believed an HIV-positive female teacher should be allowed to continue teaching.¹⁷ However, in a similar survey in Morocco, where a national awareness-raising program has been successful in sensitizing the public about HIV/AIDS, 68 percent of respondents were willing to care for a family member who is HIV positive and a great majority of them felt that it is not necessary to hide the fact that a family member is HIV positive.¹⁸

Morocco has used all the national communication means, especially TV and radio, in its campaign to educate the public about the infection. This campaign has led to a broad commitment from all the media outlets to support the ministry of health and its partners in their efforts to combat HIV/AIDS. Aside from the use of the media, a large number of people from high schools, universities, youth centers, women's centers, factories, orphanages, and public places such as markets and museums were given information on HIV prevention, which included the distribution of educational materials and condoms.¹⁹

Risks and Vulnerability

While stigma puts people at risk of HIV infection, so do selected factors in the societies they live in, such as the level of economic development and education, women's status, health poli-

cies and services, the labor market, or the structure and functioning of a prison. People are generally more vulnerable to becoming infected with HIV where social and economic conditions are poor. The proportion of the population living in urban areas is also an indicator of potential vulnerability. Even though health services are better in urban than rural areas, drug use and sex work are also more common in urban areas, and both are risk factors for HIV.

MENA's young people and married women are the most vulnerable to HIV infection, because they often fail to see the risks of HIV/AIDS. Society as a whole also fails to protect these two groups: Young people are assumed to not have a sexual relationship until they are married and a husband is assumed to be faithful to his wife. These assumptions are not true for everyone.

While the majority of people in MENA adhere to the social norms that protect them from contracting HIV, some engage in risky sexual behaviors. Young women are especially vulnerable to HIV/AIDS, as they generally marry men who are older and sexually experienced, and who could have been previously exposed to sexually transmitted infections. Age differences between husbands and wives are particularly pronounced in the MENA region. One-quarter of recent marriages in Egypt and Lebanon, for example, had women at least 10 years younger than their husbands.²⁰ Moreover, poverty may drive some young women into the commercial sex industry. Fear of the spread of HIV has prompted public debates in parts of the region on whether commercial sex should be legalized and therefore regulated, making it easier for health providers to reach sex workers and their clients with information and medical services.

On the surface, married women, whose husbands are their only lifetime sexual partner, would seem to have no reason to worry about STIs, including HIV. However, experience in many countries shows that this sense of safety could prove false because some husbands will be clients of sex workers or will be injecting drug users. The husbands could potentially, knowingly or unknowingly, infect their wives with HIV or other sexually transmitted infections. Women often lack the power to negotiate safe sex with their husbands and to ensure that their husbands are faithful. Furthermore, due to widespread discrimination

against women and a culture of blaming women for problems, the social implications of HIV infection are much harder for women to deal with regardless of the mode of infection.

Women who are pregnant and HIV positive may, in turn, infect their baby. So far, there have been relatively few reported cases of mother-to-child transmissions in the region, although the number is expected to grow as the number of HIV-infected women grows.

Prevention Can Avoid an Epidemic

Currently, MENA's HIV/AIDS prevention, surveillance, and treatment capacities are very limited. Most countries in the region do not investigate the underlying social and economic causes of infection. As a result, there is a real risk that national responses will be inadequate and HIV prevention programs will be developed without taking into account the infection patterns or the behavior and needs of groups that engage in high risk behaviors. Moreover, the limited capacities that now exist for combating the HIV/AIDS epidemic are concentrated in the health sector, but effective HIV programs require a multisectoral approach.

Sex or injecting drug use, *per se*, is not the cause of HIV infection. What can potentially spread the infection is unsafe sex—having sex with more than one partner and not using a condom—or sharing contaminated needles. No MENA country has implemented an integrated, multisectoral, national program, although many countries have developed national AIDS committees or programs. Iran and Morocco have the most advanced programs, and Egypt has developed a national program on voluntary testing and counseling that is becoming a model for the region (see Box 3).

Although prevention programs have begun in some MENA countries, their level of coverage to date remains extremely low.²¹ Successful HIV prevention efforts need to address the social and medical aspects of HIV/AIDS. These efforts include education about high-risk behaviors, harm-reduction programs, the diagnosis and treatment of STIs, voluntary counseling and testing, the prevention of mother-to-child transmission, efforts to ensure the safety of blood and blood products, and reduction of the stigma of HIV/AIDS. Interventions must begin by focusing on groups most at risk.

Box 3

Egypt's Voluntary Counseling and Testing

Egypt launched its first HIV/AIDS program in 1999, with technical assistance from Family Health International and funding from the United States Agency for International Development. The program focused on voluntary counseling and testing (VCT), outreach to people engaging in high-risk behaviors, and care for those living with HIV/AIDS. The program conducted a study of high-risk populations to examine their behaviors and to find effective strategies to reach them with quality information and services. It developed partnerships with local organizations and established a national network of VCT centers to target high-risk groups. The table below shows the age and sex profile of those visiting these VCT centers.

Egypt's VCT program has produced a number of manuals in both Arabic and English, including national VCT guidelines, a national monitoring and evaluation plan for VCT, and operating procedures for the pilot VCT sites. Serving as a model for the region, the program has also begun to provide training and technical assistance for establishing VCT centers in other Arab countries.

Age and Sex Profile of People (generally with high-risk behavior) Who Visited VCT Centers for HIV/AIDS in Egypt, Aug. 1, 2004 to Sept. 30, 2006

	Younger than 16	16-24	25-35	36+	Total
Male					
Visiting VCT centers	4	108	265	103	480
Being tested	4	85	207	86	382
Tested positive	1	2	13	12	28
Female					
Visiting VCT centers	3	25	32	26	86
Being tested	3	19	26	22	70
Tested positive	0	5	5	3	13

SOURCES: Egyptian Ministry of Health and Population, *AIDS/HIV Surveillance Report* (Cairo: Egyptian Ministry of Health and Population, 2006); Family Health International, *Egypt's HIV/AIDS Program Is Providing In-Country Technical Assistance to Yemen* (Arlington, VA: Family Health International, 2004); and USAID/EGYPT, "Case Study: Building on Success to Fight HIV/AIDS," accessed online at <http://stories.usaid.gov>, on Nov. 26, 2006.

Educational programs on HIV/AIDS that target youth are urgently needed throughout the region. The media can play an important role in educating youth and others about HIV/AIDS prevention through their wide reach and ability to break taboos and misconceptions. Egypt's HIV/AIDS hotline, funded by the Ford Foundation, is considered to be one of the most innovative HIV/AIDS prevention activities in the region. Most callers are young men seeking anonymous access to information about HIV/AIDS and basic sex education.

Table 2

Age and Sex Profile of Ever-Reported Cases of HIV/AIDS in Egypt, through June 2006

Age group	Male	Female	Total
Less than 15	36	9	45
15 to 24	223	60	283
25 to 44	1,394	318	1,712
45 and over	379	64	443
All ages	2,032	451	2,483

NOTE: One-third of the cases were among foreigners.

SOURCE: Egyptian Ministry of Health and Population, *AIDS/HIV Surveillance Report* (Cairo: Egyptian Ministry of Health and Population, July 26, 2006).

Box 4

Morocco Develops Comprehensive Plan to Fight AIDS

With technical and financial support from the World Bank and UNAIDS, Morocco finalized its National AIDS Action Plan in 2001, which led to the establishment of its Country Coordinating Mechanism (CCM) and its successful proposal in 2002 to the Global Fund to Fight AIDS, Tuberculosis and Malaria.

Morocco was the first country in the MENA region to receive a grant from the Global Fund because of the country's strong political and financial commitment to combat HIV/AIDS and its willingness to engage civil society and work with the international development community.

The CCM is a consortium of diverse local and international organizations that help develop Morocco's national strategic plans to fight HIV/AIDS. The consortium includes six ministries, two academic institutions, 10 nongovernmental organizations, seven United Nations agencies, and partners from four European countries and the European Union. The CCM's management unit serves as a secretariat that reviews and approves an annual work plan and oversees its implementation. The work plan includes actions in areas such as information, education, and communication; outreach to high-risk groups; procurement of drugs to treat AIDS; and monitoring and evaluation. The three major objectives of the Global Fund's support in Morocco are: to reduce the vulnerability of groups most exposed to HIV infection; to increase awareness and change attitudes and behavior through a communications program targeting young people and women; and to increase access to diagnostic services and treatment for people living with HIV/AIDS.

With funding from the Global Fund and the ministry of health, all eligible HIV/AIDS patients are treated for free. As of August 2006, 1,300 people were under treatment for HIV/AIDS. Following the three-year review of the CCM, a principal recommendation was to make greater efforts to include individuals living with HIV/AIDS in the CCM membership.

SOURCE: Moroccan Ministry of Health, *The Fight Against AIDS in Morocco with the Support of the Global Fund* (prepared for the Twelfth Board Meeting of the Global Fund to Fight AIDS, Tuberculosis and Malaria, held in Marrakesh, December 2005).

About one-fifth of the total population in MENA is between the ages of 15 and 24, the ages when first sexual intercourse commonly occurs. This makes information and counseling services for young people critical in the fight against HIV/AIDS.

Adequate social and behavioral research on HIV/AIDS is lacking throughout the region. MENA governments need to provide institutional and political support for the research needed to plan and implement effective HIV prevention programs. These programs must suit an individual country's socioeconomic setting.²²

The Costs of Inaction

AIDS affects people primarily when they are most productive, harming the social and financial well-being of families, communities, and countries. (Table 2 shows the age and sex profile of ever-detected cases of HIV in Egypt.) In addition, HIV is a disease that spreads silently—globally, only 10 percent of those infected know their status. Moreover, there can be an important lag between the early evidence of HIV infection in a community or country and the social and economic impact of the disease.

Training health care staff and treating and caring for people living with AIDS adds a significant financial burden on the health sector and will become increasingly difficult to sustain as the number of AIDS patients grows. In addition, the economic burden of HIV/AIDS extends beyond the health sector, as more families lose their breadwinners or caregivers and society as a whole loses its human capital.

In its study of HIV/AIDS in MENA, the World Bank estimates that “increasing condom use and expanding access to safe needles for injecting drug users can generate savings equivalent to 20 percent of today's GDP... [D]elaying the implementation of these policies could give rise to accumulated costs for the period 2000-2015 that are equivalent to 1.5 percent of today's GDP for each year of delay.” The World Bank researchers warn MENA governments that *the time to act is today*—when prevalence levels are still low—otherwise, expected costs over the next 25 years could be considerable.²³

The study describes the implications of the HIV/AIDS epidemic for reducing poverty in the

region. It calculates that 10 million to 20 million people could fail to escape poverty if per capita income is reduced by 0.5 percent to 1 percent due to HIV/AIDS. Economic growth is the main factor that determines how many people are lifted out of poverty.

Moreover, the epidemic is generally more likely to affect the low-income segments of the population, making it impossible for affected individuals and families to move up the economic ladder. For the many poor households living just above the poverty line, the main or only source of revenue is their labor. While more-privileged families can offset their losses in income resulting from AIDS with other assets, coping mechanisms for less-privileged people are more limited. As a result, poor and low-income people often change their consumption patterns (reducing education, food, and health expenditures) or send their children to work, leading to a loss of human capital due to higher child malnutrition or lower school enrollments. HIV/AIDS can thus be the trigger that drives some households into poverty.

The Way Forward

Morocco has been a pioneer in the region to develop a comprehensive national program to tackle HIV/AIDS (see Box 4). Societies best cope with HIV and prevent its spread when governments are open about the issue, vigorously provide information and services to stem the spread of the disease, and partner with organizations representing affected communities. HIV/AIDS cannot be managed with a typical public health approach, and health services alone cannot tackle the breadth of issues that produce vulnerability. MENA governments can benefit from successful interventions in other cultural and societal contexts by adapting the evidence about proven interventions to the needs of their individual countries.

In addition, diminishing vulnerability and reducing behaviors that risk spreading HIV in MENA require urgent actions to:

- Increase political will and commitment among leaders to take HIV/AIDS seriously, raise awareness among the general population about the dangers of HIV/AIDS, and target the groups that engage in high-risk behaviors with specific interventions.
- Strengthen national surveillance and information systems to better track the epidemic.

- Give priority to developing national strategic plans for addressing HIV/AIDS that are based on scientific research.
- Encourage collaboration among different government agencies and nongovernmental organizations in designing and implementing prevention programs.

Strategies should be carefully developed to strengthen health care systems to garner the financial and human resources needed to combat HIV/AIDS, and to achieve these goals without diverting efforts and resources from other health priorities.

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- ¹ The Middle East and North Africa region as defined here includes Algeria, Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestinian Territory, Qatar, Saudi Arabia, Syria, Tunisia, Turkey, the United Arab Emirates, and Yemen; and UNAIDS, *2006 Report on the Global HIV/AIDS Epidemic, Annex 2* (Geneva: UNAIDS, 2006).
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¹⁷ Fatma El-Zanty and Ann Way, *Egypt Demographic and Health Survey 2005* (Cairo: Ministry of Health and Population, National Population Council, El-Zanty and Associates, and ORC Macro, 2005): table 15.3.

¹⁸ Ministère de la Santé [Maroc], ORC Macro, and Ligue des États Arabes, *Enquête sur la Population et la Santé Familiale (EPSF) 2003-2004* (Calverton, MD: Ministère de la Santé and ORC Macro, 2005): table 15.3.

¹⁹ Kingdom of Morocco Ministry of Health, *Fight Against AIDS in Morocco* (prepared for the International AIDS Conference, Toronto, Aug. 13-18, 2006).

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