# A Snapshot of HIV in Pakistan

### On the brink of an epidemic

Eitezaz Mahmood Northwestern University, Evanston, IL, USA

#### Introduction

As the life expectancy of patients with HIV/AIDS in developing countries steadily approaches that of uninfected persons, the effort to fight and cure AIDS has lost priority to other top killers (Hogg, Lima, Sterne, Grabar, & Battegay, 2008). Therefore, the total funding for HIV/AIDS has declined in the past few years (UNAIDS, 2010). Although this may be construed as a welcome change, this news does not bode well for the developing world - particularly for countries like Pakistan, where the fight against HIV/AIDS has just begun. In Pakistan, the prevalence of HIV/AIDS has steadily risen in the past decade among vulnerable groups such as sex workers and drug users. Despite the best efforts of national and international authorities to prevent a generalized epidemic, with the recent floods in Pakistan and the overall decline in HIV/AIDS funding, health care workers are finding themselves with increasingly tighter budgets. Thus, Pakistan stands at the crossroads that developed nations were at just a few decades ago, but with fewer and ever dwindling resources.

Prevalence in Vulnerable Groups

When examined from an epidemiological standpoint, the situation in Pakistan is troubling. Although less than 0.1% of the 157 million people living in Pakistan are infected with HIV, the prevalence of HIV is increasing at an alarming rate. Currently, there are an estimated 97,400 people living with HIV in Pakistan, among whom only 4,112 are registered with the government and 1,852 receiving antiretroviral treatment (Wasif, 2011).

"Currently, there are an estimated 97,400 people living with HIV in Pakistan, among whom only 4,112 are registered with the government and 1,852 receiving antiretroviral treatment."

However, the prevalence rate among the most at risk population (MARP), such as sex workers and drug users, is much higher and suggests that the transfer of HIV to the general population may already be underway. For instance, 23% of Pakistan's recorded 125,000 injecting drug users (IDUs) are infected with HIV whereas only 10% were infected in 2005 (World Health Organization, 2011). Among sex workers, the prevalence is approximately 1% and has been increasing as well (World Health Organization, 2011). For instance, the prevalence of HIV among transgender (hijra) sex workers has jumped from 0.8%

to 6.1% from 2005 to 2009, while the prevalence among female sex workers has increased from 0% to 0.91% during the same time period (National AIDS Control Program, 2010).

## Bridge Between Vulnerable Groups and the General Populace

The steady rise of HIV infections has been a source of grave concern for health workers not only due to its immediate economic and health costs but also the danger it presents in the future. The Asian Epidemic Model (AEM) is a semi-empirical epidemiological model that has been shown to be a reliable indicator of the spread of HIV/AIDS in Asian countries (Khan & Khan, 2010). According to the AEM, HIV/AIDS first becomes concentrated among the MARP, such as IDUs and sex workers, and subsequently makes its way to the general population through bridging groups, who are in sexual contact with these high-risk groups (Khan & Khan, 2010). Pakistan was previously classified as a "high risk low prevalence" country, but has now reached the "concentrated phase" of the epidemic with an extremely high prevalence rate among certain vulnerable populations (World Health Organization, 2011). The AEM predicts that the virus will reach the general population in Pakistan through these particular bridge groups. Although the bridging population is difficult to characterize, the wives of IDUs, clients of sex workers, truck drivers, and migrant workers all maintain contact with the MARP through unprotected sex (National AIDS Control Program, 2007). Current estimates approximate that this bridging population totals about 5 million people in Pakistan (National AIDS Control Program, 2007). Considering the high prevalence of unsafe sexual practices and lack of awareness of HIV/AIDS among the bridging population, there is great potential for rapid dissemination of the virus to a far greater population (National AIDS Control Program, 2007). In the event that HIV reaches the general population, transmission will be extremely difficult to curtail. As of now, however, a window of opportunity for health workers remains open since the virus is still only concentrated among a select group of individuals.

#### **Governmental Intervention**

Fortunately, healthcare authorities in Pakistan have realized the direness of the situation. Since 2002, Pakistan has made significant progress in preventing the spread of HIV/AIDS. Through syringe-needle exchange programs, education, detoxification, behavior counseling, rehabilitation, medical services, and antiretroviral therapy, IDUs have access to a variety of ways to protect themselves and others from infection (Ghauri, Rehman, Azam, & Shah, 2002). In light of the increasing prevalence of HIV among IDUs, the Government of Pakistan has

reviewed its current legislation regarding HIV/AIDS prevention and the revised initiative, called National Strategic Framework (NSF-II), essentially redoubles previous efforts in HIV prevention by broadening the scope of HIV/AIDS control to reach women, children, and young adults (National AIDS Control Program, 2010). Despite the recent increase in the number of people with HIV/AIDS, there have been various tangible successes in HIV/AIDS prevention. For instance, in

"An estimated 5 million people are connected with the MARP through unprotected sex and are at risk of acquiring HIV."

2008, only an estimated 15% of IDUs were reached through HIV prevention programs, whereas in 2010, 54% were reached (National AIDS Control Program, 2010). However, it should be noted that this is well below the minimum needed to contain an epidemic (National AIDS Control Program, 2010). In addition, the percent of IDUs using sterile injecting equipment has risen from 28% to 78% since 2008 (National AIDS Control Program, 2010). According to Oussam Tawil, the UNAIDS coordinator, "Pakistan has made substantial progress over recent years, including in addressing sensitive social issues and increasingly involving people living with HIV in the forefront of the AIDS response" (UNAIDS, 2010). Although the percent of people being reached is still not sufficient to prevent the impending epidemic, NSF-II promises to expand the response.

#### Factors Detrimental to HIV/AIDS Control

The momentum gathered in the past few years in addressing the spread of HIV in Pakistan may soon be lost. Despite having constructed a thorough plan to prevent the spread of HIV/AIDS, Pakistan currently faces severe shortages that may hinder the initiatives in NSF-II from proceeding. After a personal interview with the Director of the National AIDS Control Program in Pakistan, Dr. Sajid Ahmad, it became clear to me that the lack of funding presents the greatest obstacle for epidemiologists and healthcare workers seeking to curtail a generalized epidemic. With the recent floods in Pakistan, regarded by the United Nations as worse than the 2004 Asian tsunami, the 2005 Pakistan earthquake, and the 2010 Haiti earthquake combined, most government and international funds for HIV prevention had to be reallocated to disaster relief (Warraich, 2011).

While the havoc wreaked by the flood certainly demands an appropriate allocation of effort and aid, this does not legitimize the world's seeming neglect of the impending HIV/AIDS epidemic in Pakistan. The cost of inaction from failing to address the spread of HIV/AIDS right now will only rise exponentially if the virus is allowed to reach the general population.

#### Conclusion

In a country already devastated by three humanitarian disasters: the 2005 earthquake that killed over a hundred thousand people, the millions of Pakistanis internally displaced by the war on terrorism, and the recent floods, it is paramount to support the lifesaving

measures in the NSF-II to prevent future tragedy. Although the prevalence of HIV in Pakistan is low, it is highly concentrated among high-risk groups and threatens to spill over to the general population if appropriate preventive measures are not taken. According to the AEM, Pakistan lags just one short step behind neighboring India in the advance of an HIV/AIDS epidemic, where 2 million people live with the virus and it accounts for 5% of the healthcare budget. In spite of the urgency of the current situation, HIV/AIDS funding has suffered a decline for the first time in 15 years that could seriously impede all prior progress (Win, 2010). In 2000, the United Nations agreed to halt and start reversing the advance of HIV/AIDS by 2015. However, European countries are now giving a total of \$600 million dollars less this year, contributing to the global \$10 billion dollar shortage in funds needed to treat and prevent HIV/AIDS (Win, 2010). Now more than ever, world leaders must be called upon to uphold their previous commitment in the fight against HIV/AIDS; a failure to do so promises dire repercussions for countries like Pakistan.

#### Acknowledgements

Special thanks to Dr. Sajid Ahmad of the National AIDS Control Program in Pakistan, Dr. Feroze Mahmood of Harvard Medical School, and Dr. Haider Warraich of Harvard Medical School

#### References

Ghauri, A., Rehman, N., Azam, S., & Shah, S. (2002). Harm reduction program for injecting drug users (IDUs) in Karachi, Pakistan. Internation Conference on AIDS.

Hogg, R., Lima, V., Sterne, J., Grabar, S., & Battegay, M. (2008). Life expectancy of individuals on combination antiretroviral therapy in high-income countries: a collaborative analysis of 14 cohort studies. The Lancet, 372 (9635), 293 - 299.

Khan, A. A., & Khan, A. (2010, April 4). The HIV epidemic in Pakistan. Journal Pakistani Medical Association .

National AIDS Control Program. (2007). National HIV and AIDS Strategic Framework 2007-2012. Ministry of Health, Islamabad.

National AIDS Control Program. (2010). UNGASS Pakistan Report. Progress Report, Ministry of Health, Islamabad.

UNAIDS. (2010, February 5). Lack of resources could undermine gains made in the HIV response in Pakistan [Press release]. Retrieved from: www.unaids.org

UNAIDS. (2010, November 16). New reports show that despite commitment, total philanthropic funding for AIDS in slight decline [Press release]. Retrieved from: unaidstoday.org

Warraich, H. (2011, January 14). The mounting public health crisis in Pakistan. Foreign Policy .

Wasif, S. (2011, February 1). National AIDS survey to kick off this month. The Express Tribune.

Win, T.-L. (2010, September 10). Funding Cuts Threaten Global Target on HIV/AIDS. (Thomson Reuters Foundation) Retrieved from www.trust.org/alertnet/news/interview-funding-cuts-threaten-global-target-on-hivaids

World Health Organization. (2011). Brief on World AIDS Day. Islamabad.