HIV- AIDS on the Decline

Every year UNAIDS releases update on AIDS epidemic in the world. The year 2007 AIDS Epidemic Update(1) for the first time reports decrease in the prevalence of HIV. It estimates 32.2 million (range 30.6-36.1 million) HIV infected people living in the world. This is 16% less than the 2006 estimates of 39.5 million (33.4-46.0 million)(2). However, the majority of the drop is not actual but due to the methodological improvement and the availability of more reliable population based data. The actual decrease has been noticed in only a few countries such as Kenya, Zimbabwe and Thailand. These new estimates are based upon the extensive use of tools including Estimation and Projection Packages (EPP), Workbook and Spectrum 3. These tools generate an HIV prevalence curve and project the age specific demographic impact of AIDS mortality. The revisions are based upon new assumptions that prevalence of human immunodeficiency virus (HIV) in adult population is usually 80% of the prevalence in antenatal clinic (ANC) attendees and; that median survival of people living with HIV/AIDS has increased to 11 years after the introduction of antiretroviral therapy (ART). The revision of the past estimates has also been carried out and the trends show that since 2001, although the total number of people living with HIV has increased over the years, the rate of new infection and the deaths by AIDS has fallen. The revision suggested that peak of the HIV epidemic was in mid nineties.

The Global Situation

The AIDS Epidemic Update 2007 further reports that there were 2.5 million (1.8-4.1 million) new HIV infections and 2.1 million (1.9-2.4 million) deaths across the world, during 2007. More than two third (68%) of the deaths and 76% of the total new infections occurred in the Sub Saharan Africa (SSA), the only part in the world where HIV has generalized epidemic. The report informs that globally, women contribute almost 50% of the HIV infections and a total of 2.5 million (2.2-2.6 million) children are living with HIV infection with 420,000 annual deaths(1).

The Indian Scenario

India too released new estimates in November 2007 (3) revising the actual prevalence of HIV to be less than half of what was estimated till then. These estimates were based upon multiple data source such as community based surveys (National Family Health Survey-3; NFHS-3), Integrated bio-behavioral assessment survey, End line behavioral surveillance survey 2006 and Sentinel reporting survey(3). In 2006, India had 2.47 million (2.0-3.1 million) HIV infected people at a prevalence of 0.36% (0.27%-0.46%) against the reported 5.21 million (at a prevalence of 0.91%) in the year 2005(4). Out of this, 39% are women and 3.8% are children. The data for the previous years have also been revised as per the new assumptions and a declining trend in the prevalence of HIV is noticeable since 2002, the year of peak HIV prevalence in India. Only three states - Manipur (1.67%), Nagaland (1.26%) and Andhra Pradesh (1.05%) have prevalence of more than 1% in adult population. The prevalence among the ANC attendees is more than 1% in Andhra Pradesh, Mizoram and Karnataka. The HIV prevalence amongst the high risk groups continues to be nearly six to eight times greater than general population.

Changing the Combat Strategy

The fall in HIV prevalence is unarguably a good news–there are less number of people living with the virus. Limited number of sentinel surveillance sites, and that too in urban areas; and high risk behavior of the people visiting sexually transmitted infections (STI) clinics led to overestimation of HIV prevalence in India earlier. For last one decade India was internationally projected to have an epidemic similar to the one in SSA. UNAIDS had contended in 2006 that India had the highest HIV infection burden of 5.7 million affected people, and thus in a stage of generalized epidemic(2). With the latest

estimates(1,3), it is clear that India has *concentrated* epidemic, restricted to a few districts and to the high risk population groups. This calls for an economic analysis to understand 'the opportunity cost' of the overestimates, of HIV burden in India and the world, to derive lessons for the future programs. Similarly, concentrated epidemic in India needs program efforts focused upon high risk population of commercial sex workers, intravenous drug users, men having sex with men and STI clinic attendees. The high burden states should be given due priority in setting up the antiretroviral therapy (ART) clinics, sentinel surveillance sites, and other targeted interventions. It may not be economically and logistically feasible to conduct community based surveys to assess HIV prevalence. HIV estimation methodology needs revision with sufficient sentinel sites distributed in all the parts of the country.

Harness the bulls: Another important point is that, over these years, many non-government organizations (NGOs) vociferously argued, without any scientific rationale, about high HIV prevalence in India. The experts and the lay media often termed this to be propaganda to garner funds. Now, when it is proven that India never had such a high prevalence, the mechanisms behind such reports need to be scrutinized in the retrospect.

ARE THESE THE FINAL ESTIMATES?

The current estimates are being called the best estimates so far. However, it does not mean these are the final and actual estimates for India and the world. Some experts have questioned the validity of community based surveys on the basis of not reporting the refusal rate by majority of these surveys. Specifically, when HIV estimates are associated with stigma, there is likelihood that people with high risk behavior would have refused for the test. Therefore, the validity of these estimates needs to be examined in the proper light. Till then, it is a good news that the world has lesser HIV burden than estimated earlier.

Competing interests: None.

Funding: None.

Chandrakant Lahariya,
Assistant Professor, Community Medicine,
Gajara Raja Medical College and
Associated Hospitals,
Gwalior 474 009, MP, India.
E-mail: ck1800@rediffmail.com,
ck1800@gmail.com

REFERENCES

1. UNAIDS. AIDS Epidemic Update 2007. Geneva: UNAIDS and WHO; 2007. Also available at www.unaids.org. Accessed on Dec 17, 2007.
2. UNAIDS. AIDS Epidemic Update 2006. Geneva: UNAIDS and WHO; 2006.
3. NACO. HIV Sentinel Surveillance and HIV Estimation, 2006. New Delhi: National AIDS Control Organization; 2007. Also available at www.naco online.org. Accessed on Dec 19, 2007.
4. NACO. HIV Sentinel Surveillance and HIV Estimation, 2005. New Delhi: National AIDS Control Organization; 2006.