

Managerial Briefing on “HIV/AIDS” Global Health Needs

Definition of HIV/AIDS¹

The human immunodeficiency virus (HIV) is a retrovirus that infects cells of the immune system, destroying or impairing their function. As the infection progresses, the immune system becomes weaker, and the person becomes more susceptible to infections. The most advanced stage of HIV infection is acquired immunodeficiency syndrome (AIDS).

Infectious Route¹

HIV is transmitted through unprotected sexual intercourse (anal or vaginal), transfusion of contaminated blood, sharing of contaminated needles, and between a mother and her infant during pregnancy, childbirth and breastfeeding. Individuals cannot become infected through ordinary day-to-day contact such as kissing, hugging, shaking hands, or sharing personal objects, food or water.

Progression^{2 3}

The majority of people infected with HIV will develop signs of HIV-related illness within 5–10 years. The time between acquiring HIV and an AIDS diagnosis is usually can be 10–15 years.

Although the symptoms of HIV and AIDS vary from person to person, there are four stages of the symptoms associated with HIV/AIDS: i) first stage after getting HIV, ii) early HIV, iii) late HIV, iv) early AIDS stage. Most people do not notice if they get HIV. During early HIV stage, a battle between HIV and CD4 cells, a lymphocyte that attacks external intruders, takes place for several years without being clinically noticed. Eventually, this stages ends with mild infections or chronic symptoms: such as swollen lymph nodes, diarrhea, and weight loss. During the late HIV stage, more serious symptoms may start such as: persistent unexplained fatigue, soaking night sweats, persistent headaches and etc. Then AIDS develops when as infected person starts having opportunistic infections.

HIV is the strongest risk factor for developing active TB disease In 2011, approximately 430 000 deaths from tuberculosis occurred among people living with HIV. The majority of people living with both HIV and TB reside in sub-Saharan Africa. In addition, there are many other infections caused by bacteria, including Mycobacterium Avium Complex and Salmonellosis, by Virus, including Viral hepatitis, Cytomegalovirus and etc, by fungi, including Candidiasis and Cryptococcal meningitis..

Key Facts^{4, 5}

There were approximately 34 million people living with HIV in 2011. Sub-Saharan Africa is the most affected region, with nearly 1 in every 20 adults living with HIV. Sixty nine per cent of all people living with HIV are living in this region. In 2012, more than 9.7 million people living with HIV were receiving antiretroviral therapy in low- and middle-income countries, 7.5, 0.9, 0.7, 0.3, 0.2 million in Sub-Saharan Africa, South-East Asia, Americas, Western Pacific, and European region respectively. About 25 million people have died to date. An estimated 1.7 million people died of HIV/AIDS in 2011.

¹ http://www.who.int/topics/hiv_aids/en/

² <http://www.who.int/features/qa/71/en/index.html>

³ <http://www.nlm.nih.gov/medlineplus/tutorials/aids/hp249103.pdf>

⁴ <http://www.who.int/hiv/en/index.html>

⁵ <http://www.who.int/hiv/data/ARTmap2013.png>

Available treatments & Prevention^{6,78}

There is no cure for HIV infection. However, effective treatment with antiretroviral drugs can control the virus so that people with HIV can enjoy healthy and productive lives.

Combination antiretroviral therapy (ART) prevents the HIV virus from multiplying in the body. ART can slow the disease progression by preventing the virus replicating and therefore decreasing the amount of virus in an infected person's blood.

Key ways to prevent HIV transmission are i) to practice safe sexual behaviors such as using condoms; ii) to get tested and treated for sexually transmitted infections, including HIV; iii) medical male circumcision, iv) using ART, v) to avoid injecting drugs, or if you do, always to use new and disposable needles and syringes; vi) to eliminate of mother-to-child transmission, which is currently almost entirely avoidable.

Differences in incidence and care in across settings, including inequities⁹

Limited access to preventive interventions has caused huge incidence in low-income countries. For example, most of the children live in sub-Saharan Africa and were infected by their HIV-positive mothers during pregnancy, childbirth or breastfeeding. Over 900 children are reported to become newly infected with HIV each day.

Close to 10 million HIV-positive people had access to ART in low- and middle-income countries, and there are some 26 million people who will require access to antiretroviral drugs as of 2012.

Key requirements for reducing the negative impacts^{10,11}

The most important series of actions is to optimize HIV prevention, diagnosis, treatment, and care outcomes. Given life treatment costs \$79,668 per person (in 2010) while diagnosis and prevention cost quite less, to detect HIV/AIDS patients and to prevent the spread of the disease are necessary steps, first of all. To do so, addressing and educating of preventative action on HIV/AIDS and providing sufficient tools and services with people at stake throughout the world are required.

Now that HIV/AIDS is no longer mortal disease with appropriate treatments, more accessibility to treatments to current patients and potential patients are keys in low-income countries. Therefore, continuous delivery of ART and other medical supply secured with enough funds by governments, NGO, doctors, companies (pharmaceuticals, distributors, and retailers), and entrepreneurs.

Summary

Out of 34 million HIV/AIDS patients in the world, only less than 10 million have access to treatment. Given complete therapy has not yet been invented, life-time treatment is required, making it difficult for low- and middle-income to bear financial burden for treatment. The rest of patients cannot afford to the treatment due to lack of funds and supply. On the other hands, hundreds of children and people are getting HIV without noticing or any preventative measure every day. To prevent the spread of this disease, sufficient supply of education, preventive tools, and care are required.

⁶ <http://www.who.int/hiv/pub/guidelines/arv2013/intro/executivesummary/en/index.html>

⁷ <http://www.who.int/mediacentre/factsheets/fs360/en/>

⁸ <http://www.cdc.gov/hiv/basics/prep.html>

⁹ http://www.dcp2.org/file/240/dcpp-twphiv_web.pdf

¹⁰ <http://www.cdc.gov/hiv/prevention/ongoing/costeffectiveness/>

¹¹ http://whqlibdoc.who.int/publications/2011/9789241501651_eng.pdf

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