

AIDS and Cultural Variations

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Problem

AIDS, a chronic immune system disease caused by HIV (human immunodeficiency virus), has been affecting thousands of people for over thirty years. The percentage of people in different areas around the world can be as low as only one percent to a fifth of the population. The problem many areas face is too little knowledge and treatment options available for the disease.

Background Information

- Requirements for diagnosis: HIV positive person with a CD4+ T cell count of less than 200 μ L (Fauci 2012).
- Over 3 million people are killed by AIDS yearly, with 2.4 million from Sub-Saharan Africa alone (O'Hara 2007)
- 73 out of every 1,000 drug users examined are diagnosed with HIV and 90 percent of these are intravenous drug users (Popova 2007).

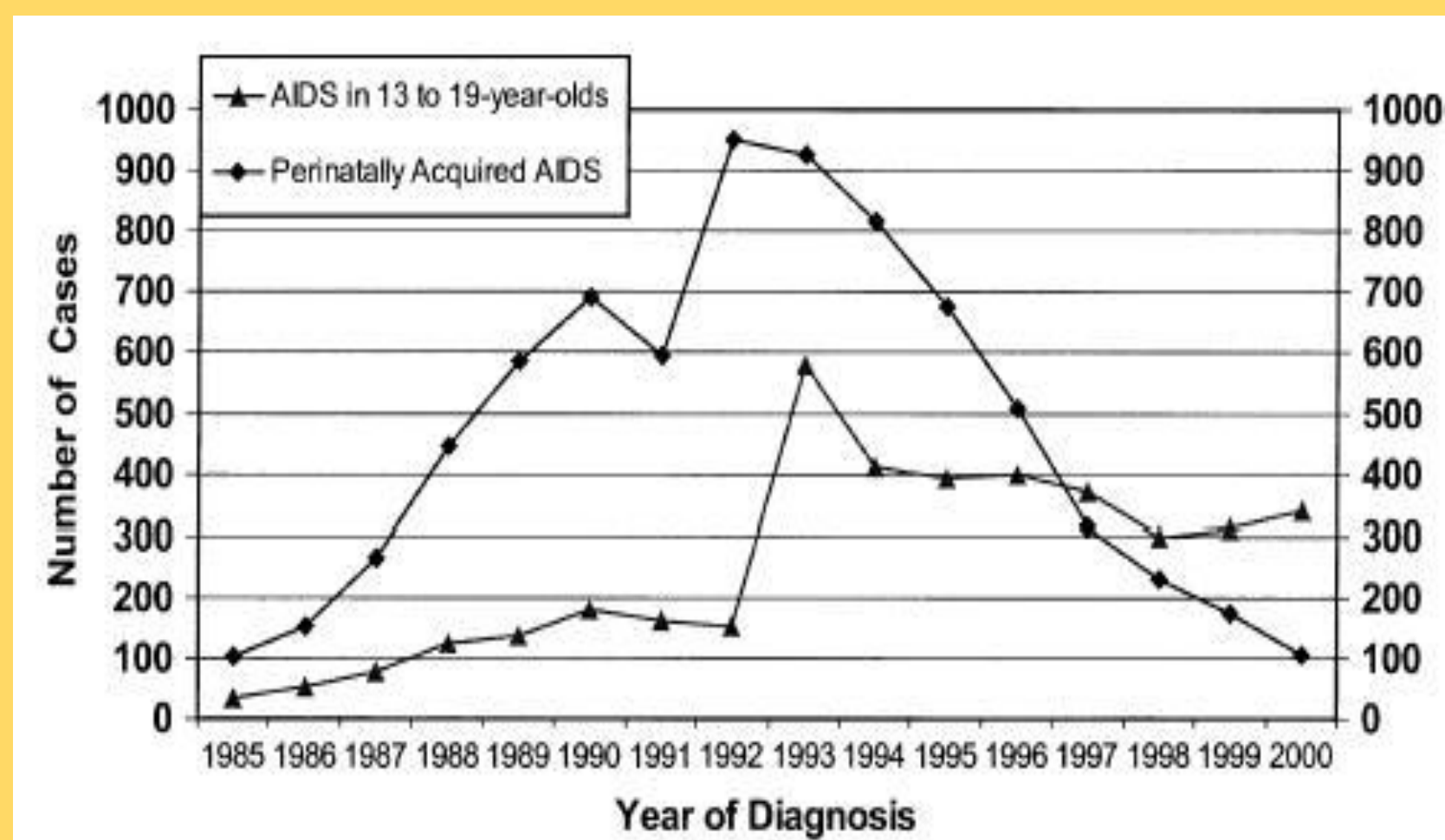


Figure 1: Prenatally acquired and adolescent AIDS cases from 1985-2000 (center for Disease Control ,2001).

Hypothesis

We hypothesize that underdeveloped countries will have higher rates of AIDS patients due to less accessibility to information and treatment than those that are developed.

Method

We will be looking into the economic conditions, cultural stigma, and social barriers that are associated with AIDS and HIV in the respective areas. Also by comparing this to the impact of the spread and prevention of the disease we will be able to make inferences on why some areas especially more poverty stricken areas are more prone to higher rates.

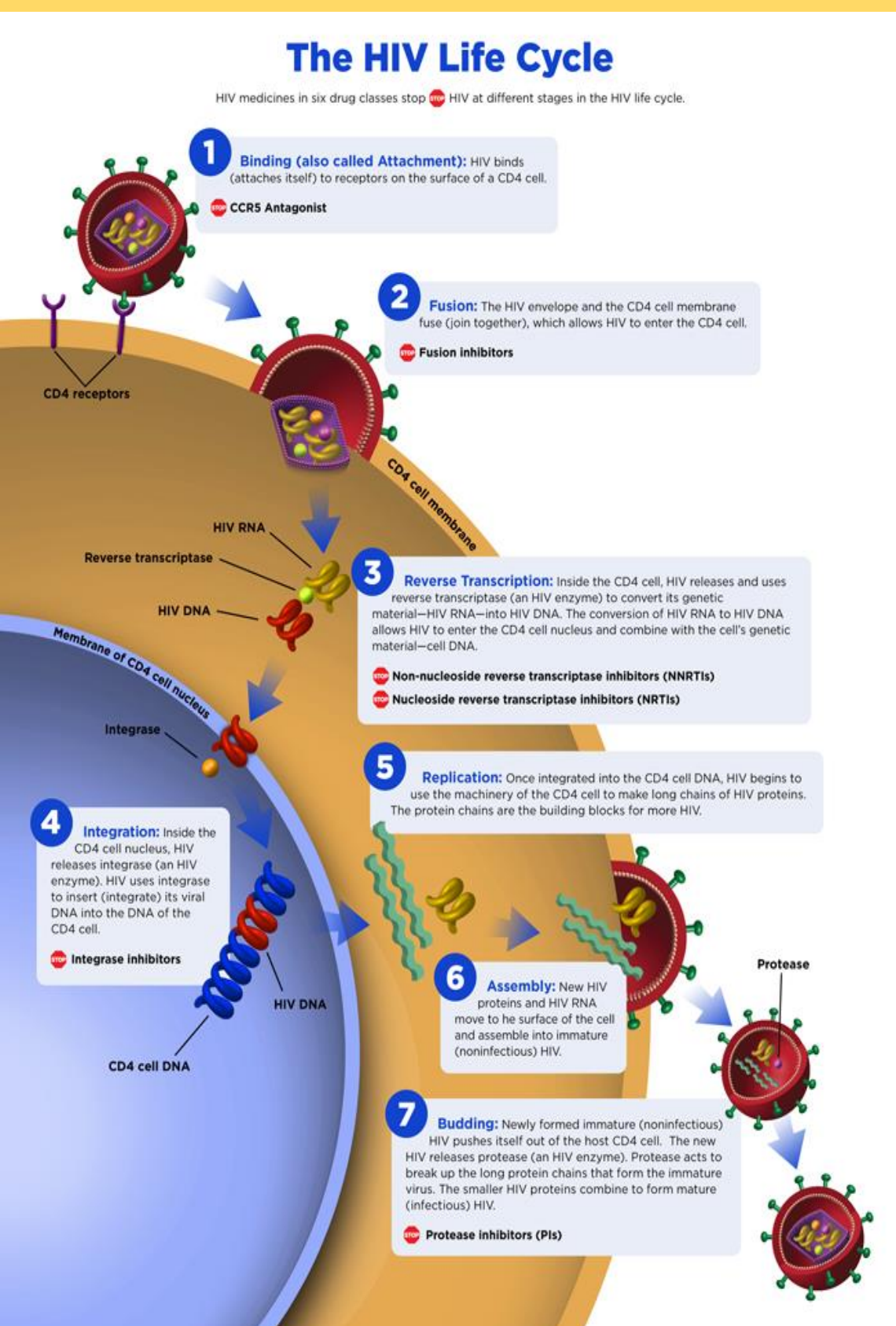


Figure 2: The life cycle of HIV (HIV Life Cycle 2015).

Results West Africa

- Percent of people in the Sub Saharan Africa with HIV range from 2% to 7% in each country (Goliber, 2002).
- 15 percent among pregnant women and as high as 62 percent among prostitutes (FAO, 1997).
- Conflict causes declining health revenues which leads to less treatment (Alastair, 2005).
- Condom use remains sub-optimal. Condom use at last extramarital sex was much higher among men, where it varied between 37% and 52% among men, and between 6% and 26% among women (World Bank, 2008).

East Africa

- Kenya: Has 1.6 million people with AIDS/HIV, with the prevalence in rural areas is 4.6% and 9.6% in Urban areas (Williams 2014).
- An estimated 300 thousand Kenyans that are in need of treatment. (Williams 2014).
- KAIS, used 7.5 million U.S dollars but was able to receive much needed information to help reduce the prevalence in HIV/AIDS (Lanegram 1993).
- Uganda: Has 1.3 million people with AIDS/HIV, 7.5% of the country, but is on the decline because of the help of the government and the ability to use antiretroviral therapy (UGANDA 2005).

Europe

- In 2011 the prevalence of adult HIV infection varies from below 0.2% in parts of Central Europe to above 1% in parts of Eastern Europe (Aeni-Popp 2013).
- Countries with the highest rates in 2010 were Belgium (10.7) and the United Kingdom (10.0) (Lazarus 2008).
- The majority of the reported people diagnosed with HIV was infected through male-to-male sexual contact (40.1%) and 10.1% were 15 to 24 years old (Lazarus 2008).
- Focus on prevention tactics among the most-at-risk populations: homosexual males, prisoners, drug users, and mother-to-child transmission (Lazarus 2008).

US

- AIDS was first recognized in 1981, when the U.S. CDC reported mysterious cases of *Pneumocystis jiroveci* in five previously healthy homosexual men and Kaposi's sarcoma in 26 previously healthy homosexual men in New York and Los Angeles (Fauci 2012).
- Scientists tried to develop a vaccine with the envelope protein gp120 aimed at inducing neutralizing antibodies in humans. It was unsuccessful (Fauci 2012).
- About 1.1 million people in America who are HIV-infected, but an estimated 21% do not know (Fauci 2012).
- CDC is starting to require HIV testing for people 13 to 64 in the United States (Fauci 2012).

South Asia

- HIV entered South Asia in 1984 and has gone viral due to vast poverty, social inequality, illiteracy, and large sex work industries (Panovska-Griffiths 2014).
- India has more than 60% of south Asia's HIV positive population (Panovska-Griffiths 2014).
- HIV prevalence among female sex workers (FSWs) is higher than any other region caused by lack of awareness and little access to condoms (Panovska-Griffiths 2014).
- The Avahan Program has been providing HIV prevention activities and condom promotion among FSWS. Prevented around 202,000 cases of infection in 4 years (Panovska-Griffiths 2014).

East Asia

- East Asia presents stable HIV infection, with a low prevalence around 0.1% of the population (Kenyon 2014).
- In 2012, 47% of HIV infected people had antiretroviral treatment (AIDS 2014).
- Government efforts have been made in order to reduce the epidemics, for instance, HIV/AIDS Asia Regional Program (HAARP) aims to stop the HIV spread associated with drug use (Sharma 2012).
- Steps forward: increasing treatment coverage, providing early diagnostics, and promoting prevention strategies, principally in the most affected groups (Sharma 2012).

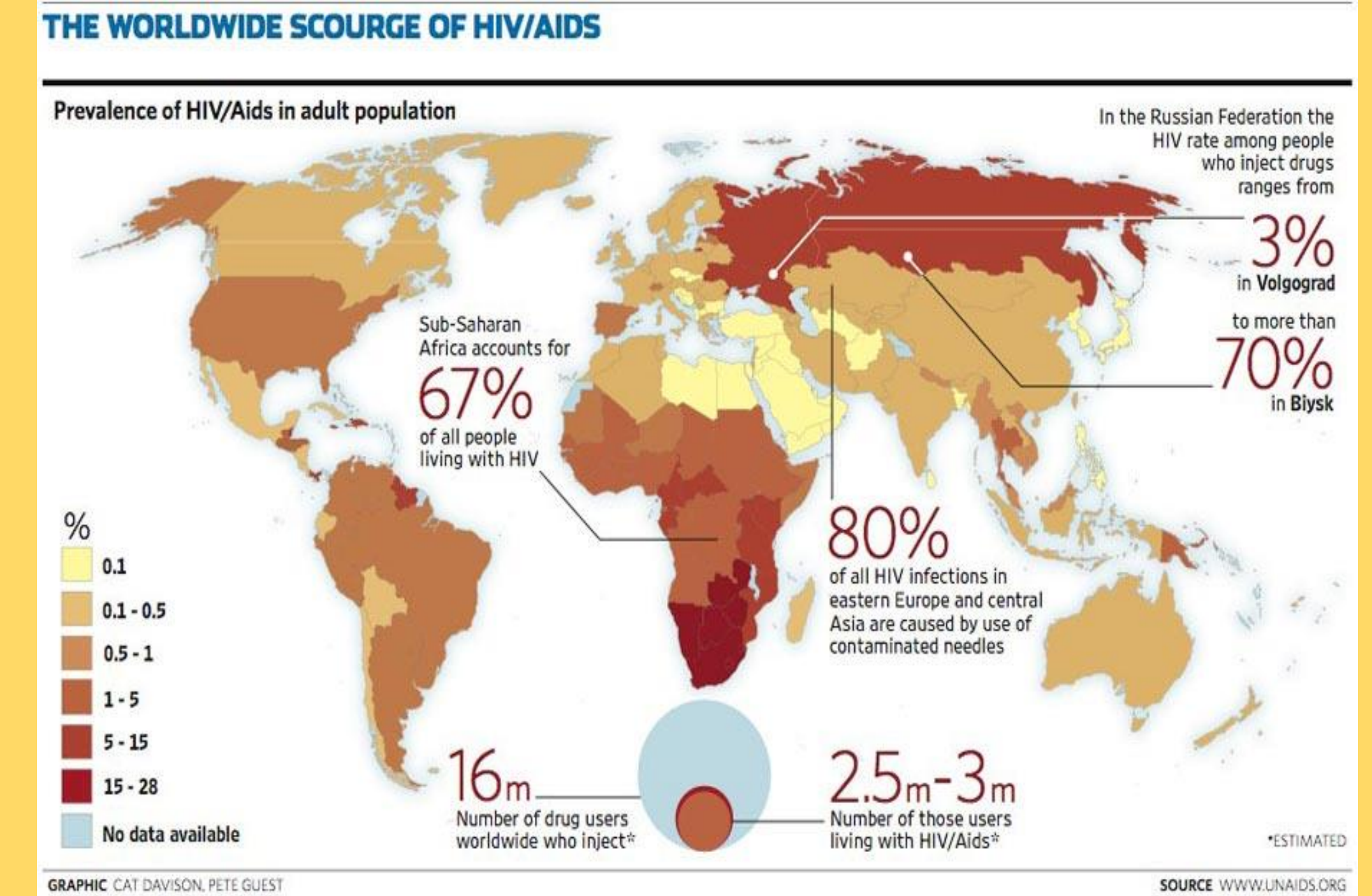


Figure 3: Map of the world's population with AIDS (Davison 2012)

Conclusion

As shown by the data collected, the rates of AIDS and HIV positive individuals is higher in undeveloped countries. Many of these areas that report high prevalence of HIV positive individuals are overpopulated are not informed properly about the dangers and possible treatments and prevention tactics. More countries are now stepping in and starting initiatives the help fight AIDS. Governments and organizations should take this data into consideration and follow through by taking action to help these areas.

Bibliography

- FOA. "The Impact of AIDS on Agriculture - Introduction." *The Impact of AIDS on Agriculture - Introduction*. Food and Agriculture Organization of the United Nations, 7 Jan. 1997. Web. 1 Apr. 2015.
- Goliber, Thomas. "The Status of the HIV/AIDS Epidemic in Sub-Saharan Africa." *The Status of the HIV/AIDS Epidemic in Sub-Saharan Africa*. Population Reference Bureau, June 2002. Web. 01 Apr. 2015.
- Davison, Cat. *The World Scourge of HIV/AIDS*. 2012. Photograph. UNAIDSWeb. 5 Apr 2015. <https://arthurd.files.wordpress.com/2012/04/aids-and-hiv-worldwide-004.jpg>.
- Fauci A.S., Lane H (2012). Chapter 189. Human Immunodeficiency Virus Disease: AIDS and Related Disorders. In Longo D.L., Fauci A.S., Kasper D.L., Hauser S.L., Jameson J, Loscalzo J (Eds), *Harrison's Principles of Internal Medicine, 18e*. Retrieved March 15, 2015 from <http://accessmedicine.mhmedical.com/gate.lib.buffalo.edu/content.aspx?bookid=331&Sectionid=40726947>.
- Kenyon, C., Buyze, J., & Colebunders, R. (2014). Classification of incidence and prevalence of certain sexually transmitted infections by world regions. *International Journal of Infectious Diseases*, 18(0), 73-80. doi:<http://dx.doi.org/10.1016/j.ijid.2013.09.014>
- AIDS 2014 Communications Department. Factsheet: HIV and AIDS in Asia and the Pacific. Retrieved from http://www.aids2014.org/webcontent/file/AIDS2014_Fact_sheet_Asia_Pacific.pdf
- Sharma, M., & Chatterjee, A. (2012). *Partnering with law enforcement to deliver good public health: the experience of the HIV/AIDS Asia regional program*. *Harm Reduction Journal*, 9(1), 24-29. doi:10.1186/1477-7517-9-24
- Aebi-Popp, K., Mulcahy, F., Rudin, C., Hoelsi, L., Gintelmaier, A., Lyons, F., & Thorne, C. (2013). National Guidelines for the prevention of mother-to-child transmission of HIV across Europe - how do countries differ?. *European Journal Of Public Health*, 23(6), 1053-1058. doi:10.1093/eurpub/ckt028.
- Lazarus, J. V., Laukamm-Josten, U., Atun, R. A., Lijestrand, J., Vase, I., & Matic, S. (2008). Encouraging innovation: ten research priorities for achieving universal access to HIV/AIDS prevention, treatment and care in Europe by 2010. *Central European Journal Of Public Health*, 16(3), 95-98.
- Bimal Charles, Bimal Charles; Jayaseelan, Lakshmanan; Kumar Pandian, Arvind; Edwin Sam, Asirvatham; Thenmozhi, Mani; Jayaseelan, Visalakshi. *BMC Public Health*. 2012, Vol. 12 Issue 1, p463-473. 11p. 4 Charts. DOI: 10.1186/1471-2458-12-463
- Panovska-Griffiths, Jasmina; Vassall, Anna; Prudden, Holly J.; Lépine, Aurélie; Boily, Marie-Claude; Chandrashekar, Sudha; Mitchell, Kate M.; Beattie, Tara S.; Alary, Michel; Martin, Natasha K.; Vickerman, Peter. *PLoS ONE*. Oct2014, Vol. 9 Issue 10, p1-9. 9p. DOI: 10.1371/journal.pone.0107066
- Clavel, F. (1987). Human Immunodeficiency Virus Type 2 Infection Associated with AIDS in West Africa. In *Human Immunodeficiency Virus Type 2 Infection associated with AIDS in West Africa* (Vol. 1). New England Journal of Medicine). S.I.: [sn].
- The impact of AIDS on agriculture - Introduction. (1997, May 7). Retrieved April 6, 2015, from <http://www.fao.org/focus/e/aids/old/west-e.htm>
- Goliber, T. (2002, July 1). The Status of the HIV/AIDS Epidemic in Sub-Saharan Africa. Retrieved April 6, 2015, from <http://www.prb.org/Publications/Articles/2002/TheStatusoftheHIVAIDSEpidemicinSub-SaharanAfrica.aspx>
- Alastair, R. (2005, February 1). Governance Violence and AIDS in West Africa. Retrieved April 6, 2015, from http://justiceafrica.org/wpcontent/uploads/2014/03/Roderick_GovernanceViolenceandAIDSinWestAfrica.pdf
- World Bank. 2008. *West Africa HIV/AIDS epidemiology and response synthesis : implications for prevention*. Washington, DC: World Bank.
- World Bank Global HIV/AIDS Program. Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/2008/11/16280509/west-africa-hivaids-epidemiology-response-synthesis-implications-prevention>
- "Uganda sees AIDS rate rise." *Telegraph Herald* (Dubuque, IA). (July 22,2012 Sunday): 554 words. LexisNexis Academic. Web. Date Accessed: 2015/03/03.
- UGANDA; 'mismanaging' aids money. (2005, Aug). Tri - State Defender Retrieved from <http://search.proquest.com/docview/367754551?accountid=14169>
- "Uganda Leading East Africa in Aids Treatment." *Africa News Service* 14 June 2006. General OneFile. Web. 3 Mar. 2015. <http://www.jstor.org.gate.lib.buffalo.edu/stable/27503285>. Web. 24 Feb. 2015
- Williams, Lippincott. "Kenya AIDS Indicator Survey 2012." *JAIDS* (May 2014): n. pag. Web. 24 Feb. 2015
- O'Hara, P. A. (2007). The Global Spread of AIDS and HIV. *Journal Of Economic Issues*, 41(2), 459-468.
- Popova, N., & M.E. Sharpe, I. (2007). College Students' Attitudes Toward People Infected with HIV. *Russian Education And Society*, 49(4), 60-75.
- Centers for Disease Control and Prevention. Revised guidelines for HIV counseling, testing, and referral. *MMWR Morb Mortal Wkly Rep*. 2001;50:1-58.
- The HIV Life Cycle. (2015, March 26). Retrieved April 2, 2015, from <http://aidsinfo.nih.gov/education-materials/factsheets/19/73/the-hiv-life-cycle>