**Global Impact of HIV: Exploration and Discussion**

HIV infection is different from any other viral infection in two significant ways

1. HIV selectively infects and destroys a key player in the host’s immune system, and
2. The HIV proviral DNA gets integrated in the host cell genome leading to life-long infection.

As of now there is no known cure for it but morbidity and mortality can be managed by taking medications life-long. Although HIV infects individuals - there are many associated factors and implications that have been studied for persons living with HIV/AIDS (PLWHA). Here we will discuss some of the social, economic, cultural and other factors that are seen amongst persons reported to be living with HIV. Note that none of these factors are a direct cause for HIV infection.

Resources:

1. AIDSVu (<http://aidsvu.org/>): an online interactive map displaying the prevalence of HIV in the United States. The state- and county-level data displayed here come from the U.S. Centers for Disease Control and Prevention’s (CDC) national HIV surveillance database. The website also provides information about social determinants of health – poverty, median household income and education.
2. WHO HIV/AIDS (<http://www.who.int/hiv/en/>): a compilation of data and information related to the status of the incidence, diagnosis, treatment and morbidity caused by HIV infection.

In-class discussion:

1. Find the state that you live in at <http://aidsvu.org/local-statistics/> and review the statistics and information about it.
   1. What is the number of persons living with HIV/AIDS (PLWH) in your state? Discuss this number as Prevalence Rate Ratios by Race/Ethnicity. (Level: Introductory)
   2. What is the main cause of transmission in your state? Does this differ for males and females? Explain. (Level: Introductory)
   3. What is the number of persons living with HIV/AIDS (PLWH) in both a neighboring and a distant state? Discuss these number as Prevalence Rate Ratios by Race/Ethnicity and compare them to those in your state. (Level: Advanced)

* 1. What is the main cause of transmission in the neighboring state and distant state? Discuss this for males and females in both the states and compare with that in your state. (Level: Advanced)

1. Review the maps at <http://aidsvu.org/map/>. Discuss the correlation of the following social determinants of HIV/AIDS in the United States. (Level: Introductory)
   1. Poverty
   2. High school education
   3. People without health insurance
2. Click on the tab showing “New Diagnosis Data”. Based on your exploration of the social determinants of HIV/AIDS, explain the concentrations of the New Diagnosis Data points on the map. (Level: Advanced)

1. Explore the global statistics of HIV/AIDS. Compare the following HIV/AIDS world maps –
   1. Prevalence (<http://apps.who.int/gho/data/view.wrapper.STI3v?lang=en>), and
   2. Number of deaths (<http://apps.who.int/gho/data/view.wrapper.STI4v?lang=en>).

Are the regions with high prevalence and high death rates the same? Discuss possible reasons for any similarities and differences that you notice in these maps. (Level: Introductory)

Assessment suggestions:

Individual project:

* Do you think that an individual’s high-risk behavior that may lead to HIV infection has an economic and political implication at a national/global level? Explain the rationale(s) for your response in 2-3 paragraphs.

Group project:

* In groups of 3-4 students discuss any 2 different measures that you think would address some of the current challenges in diagnosing and treating HIV/AIDS. In your discussion state the challenge first and then propose your solution(s).
* Explore the statistics and information available in the AIDSVu and WHO HIV/AIDS websites. In groups of 3-4 students create infographics to discuss at least one new idea about the following topics, that you would like to share with your family and friends:

1. Causes and/or implications of HIV/AIDS in your state.
2. Causes and/or implications of HIV/AIDS in the United States.
3. Causes and/or implications of HIV/AIDS in the world.