

## **HIV Epidemic in Pakistan**

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Human Immunodeficiency Virus (HIV) if left untreated, can lead to acquired immunodeficiency syndrome (AIDS). Once a patient is HIV positive, he/she has it for life. HIV attacks the body's immune system, specifically the CD4 cells (T cells), which help the immune system fight off the infection. A person with AIDS, can transmit disease to others. So, it is very important for HIV+ patients to start treatment known as Antiretroviral Therapy (ART) to keep the virus suppressed. Due to recent medical advancements in ART and good access to healthcare patients rarely develop AIDS once they are under care.

In 2014, the Joint United Nations Program on HIV/AIDS (UNAIDS) and partners launched the 90-90-90 initiative; the aim is to: 1) diagnose 90% of all HIV-positive persons; 2) provide antiretroviral therapy (ART) for 90% of those diagnosed; and 3) achieve viral suppression for 90% of those treated by 2020. In the USA, most state health departments are making UNAIDS 90-90-90 as their action policy to control this epidemic. For example, the state of Rhode Island's Department of Health (RIDOH) adopted the 90-90-90 initiative a few years ago. Since then, Rhode Island has been implementing different initiatives to achieve this goal. Many state agencies, healthcare organizations, and researchers are working together to achieve the 90-90-90 goals by 2020. A few examples of these efforts include funding from Health and Resources & Services Administration (HRSA) for Ryan White programs which provides HIV+ patients free access to ART and clinical protocols (i.e., Seek, Test, and Treat which test patients for HIV while incarcerated) and free-needle exchange programs. Community-based case-management agencies are working in collaboration with healthcare organizations to keep patients engaged and retained in care. We are proud that the state of Rhode Island is very close to achieving the 90-90-90 goals with early reports stating that we are close to 90% viral suppression.

Unfortunately, Pakistan is on the opposite spectrum of the 90-90-90 initiative. According to the most recent World Health Organization (WHO) report<sup>1</sup> published on World AIDS day 2018: 1) Pakistan is registering 20,000 new HIV infections annually, the highest increase among all countries in the region, 2) Only 16% of the estimated 150,000 people living with HIV have been tested, and 3) Only 9% of those tested are on Antiretroviral Therapy. No statistics on the number that are engaged and retained are available. This implies there are more than 130,000 people infected with the HIV virus who don't yet know their HIV status. It is likely, that these same individuals are spreading the virus unintentionally.

It is very important to start prevention efforts by educating the population about HIV and the modes of transmission. Some possible modes of HIV transmission cited for Pakistan in various studies<sup>2</sup> includes shared needles and razors used by barbers, sex workers (including transgender), and men who have sex with men (MSM). It is also important to educate the community available treatment options, and the importance of starting and continuing ART medicines.

We are in the initial stages of developing an HIV education and awareness project in Pakistan. This project targets both providers and patients using an open dialogue about HIV disease which perfectly aligns with APPNE/APPNA's mission "to promote health related projects in the US and Pakistan".

If you are interested in obtaining more information, please contact Fizza Gillani, PhD ([fgillani@lifespan.org](mailto:fgillani@lifespan.org) or [Fizza\\_Gillani@brown.edu](mailto:Fizza_Gillani@brown.edu)).

References:

1. HIV Epidemic Spreads at Alarming Rate in Pakistan; WHO Monitoring Desk Report (December 3, 2018); <https://nation.com.pk/03-Dec-2018/hiv-epidemic-spreads-at-alarming-rate-in-pakistan-who> ; accessed December 4<sup>th</sup>, 2018
2. M. Ali, M Nadeem, M. Numan, et al; Thirty Years of HIV in Pakistan; Article in Virology, 2017 (DOI: 10.2217/fv1-2017-0009)
3. Global AIDS Monitoring; Country Progress Report-Pakistan, 2017. <http://www.unaids.org>. accessed January 25, 2019