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HIV Communications Project in Pakistan **Project Summary, Updates, and Future Directions**

Background: April 2019 changed the HIV disease landscape in Pakistan when more than 750 people, mostly children, were diagnosed with HIV in Larkana, Sindh, Pakistan. This incident changed the perception of HIV disease, one that was previously limited to key populations, to an emerging disease in Pakistan's general population. Investigations revealed different suspected contaminated blood sources, including reuse of syringes/needles in different settings and contaminated donated blood, etc. Since then, 1175 people in total have been diagnosed with HIV in Larkana, Pakistan, 80% of which (935 patients) are children under the age of 12.

What is HIV? Human Immunodeficiency Virus (HIV) attacks the body's immune system, specifically the CD4 cells (T cells), which help the immune system fight off the infection. HIV, if left untreated, can lead to acquired immunodeficiency syndrome (AIDS). A person with AIDS can transmit the disease to others. It is therefore very important for HIV+ patients to start treatment known as Antiretroviral Therapy (ART) to keep the virus suppressed (per new recommendations, treatment should be started as soon as a person is diagnosed with HIV). Due to recent medical advancements in ART and improved access to healthcare available in the developed world, patients rarely develop AIDS once they are under care.

HIV is a chronic disease because once a patient is HIV positive, he/she has it for life. HIV is different from other chronic diseases like diabetes or blood pressure, because if left untreated, an HIV+ patient can transmit this disease to others. However, if the patient is on ART, is adherent to medications, and has a suppressed viral load, then the chances of transmission to others are minimal.

According to the most recent World Health Organization (WHO) report published on World AIDS Day, December 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
- 3) Only 9% of those tested are on Antiretroviral Therapy.

This data implies that there are more than 130,000 people infected with the HIV virus who don't yet know their HIV status in Pakistan. It is likely that these same individuals are spreading the virus unintentionally.

Solutions in Pakistan? Many campaigns by the government of Pakistan and other agencies are underway to educate people about HIV disease, treatment, and modes of HIV transmission. Some possible modes of HIV transmission cited for Pakistan in various studies includes shared and/or re-used needles in any setting. The most recent HIV outbreak in Sindh Pakistan (April 2019) is mostly a result of re-used needles by healthcare providers, and to some extent, perinatal transmissions.

It is becoming more important to start community outreach activities and encourage people to be tested for HIV. If HIV medication begins at an early stage of disease, people can live long and healthy lives. It is also important to educate the community about available treatment options, and the importance of starting and continuing ART medicines. Specifically, at -risk populations should be targeted and educated about Pre-Exposure Prophylaxis (PrEP).

For more information:

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>

Project Design: The HIV Communications Project is a quick response to this developing healthcare emergency in rural Pakistan and is designed by the project team with experts from the **Providence-Boston Center for AIDS Research (CFAR) at Brown University, Jinnah Sindh Medical University Alumni Association of North America (JSMUAANA), and Association of Pakistani Physicians of New England (APPNE)**. This is a volunteer project with the goal of disseminating HIV knowledge at different forums, such as teaching institutions, hospitals, and other health care provider groups in Pakistan. The main objective is to empower healthcare providers and communities with updated HIV knowledge to reduce stigma and increase awareness about HIV/AIDS in Pakistan, with the following aims:

<p>Aim 1: Create an educational campaign to reduce stigma and increase awareness about HIV/AIDS by empowering healthcare professionals and their patients</p> <p>Completed: May 19 2019 - June 23, 2019</p>	<p>We hosted a series of six webinars designed to reduce stigma and increase awareness about HIV among healthcare providers by providing information, such as (1) guidance on prevention and treatment of HIV in adults, pregnant women, and children, (2) HIV co-infections with TB, Hepatitis B, and Hepatitis C, and (3) psychological and socio-economic effects of HIV, as well as cultural boundaries in Pakistan.</p> <p>All webinars were delivered by experts in HIV from Providence-Boston Center for AIDS Research and were highly attended by different faculty members from medical colleges in the affected areas of Pakistan. As a result, many local healthcare providers and medical school faculty members began providing talks in their own communities to increase awareness about the disease.</p>
<p>Aim 2: Work with local medical schools to train new generations of healthcare providers on the management of HIV/AIDS epidemic in Pakistan</p>	<p>We aim to support local medical schools in Pakistan to develop HIV, HIV-TB, HIV-Hepatitis C, and HIV-Hepatitis B Continuing Medical Education (CME) courses through seminars, webinars, and other collaborations. These will provide healthcare professionals (e.g., doctors, nurses, paramedical and other support staff) with learning resources and develop online tools about HIV disease management. Once developed, these will be translated in different languages, and can be replicated at other healthcare institutions in Pakistan as well as other third world developing countries. One of the most important components under this aim will be to arrange HIV Awareness and Training Conferences in both the U.S. and Pakistan.</p>
<p>Aim 3: Work with colleges and intermediate educational institutions to include more HIV awareness and prevention modules in their curriculum</p>	<p>We will provide guidance to interested private (or public) school systems to create HIV awareness modules in their curricula. We aim to work with the administration and academic faculties of these school systems to create these modules.</p>

Conclusion: The mentioned project is aimed to help fight the HIV disease epidemic and empower local healthcare communities with necessary knowledge and resources to successfully manage HIV disease in Pakistan in short-term as well as long-term with an aim towards stopping future HIV transmissions.

Project Planning Team Members:

1. *Fizza S. Gillani, PhD; Providence/Boston Center for AIDS Research at the Miriam Hospital, Providence, RI, USA*
2. *Rizwan Naeem, MD; Montefiore Medical Center NY, New York, USA, Jinnah Sindh Medical University Alumni of North America (JSMUAANA)*
3. *Aziz Soomro, MD; Westchester Medical Center Valhalla, New York, USA*
4. *Syed Iftikhar Hussain, MD, NRI Medical Services, RI, USA; Association of Pakistan Physicians of New England (APPNE Ex-President)*
5. *Dr. Asimah S Qayyum, MD, President- Current president – APPNE. Alumnus Dow Medical University of Health Sciences of North America*