

**Association of Physicians of Pakistani Descent of North America (APPNA) and the Medical Education and Research Investment Task Force (MERIT) - HIV Committee**

## **HIV Awareness, Prevention, and Education Project in Pakistan**

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By

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### **Collaborators**

The Medical Microbiology and Infectious Diseases Society of Pakistan (MMIDSP), Pakistan; Pakistan Society of Internal Medicine (PSIM), Pakistan; Aga Khan University (AKU), Karachi, Pakistan; Association of Pakistani Physicians of New England (APPNE), Massachusetts, USA; Providence/Boston center for AIDS Research, Rhode Island, USA.

### **EXECUTIVE SUMMARY**

*This report summarizes the findings of a 2-year long campaign of HIV educational webinars arranged by the APPNA-MERIT HIV Committee conducted during 2021 and 2022 where over 700 HIV care providers from Pakistan and experts from the USA provided assessment and recommendations. These deliberations identified serious gaps in the existing hard and soft infrastructure for increasing treatment uptake and reducing the number of new HIV infections, HIV transmissions, and morbidity and mortality in Pakistan. Key recommendations to bridge these gaps are summarized. The Committees' **"Build Capacity"** framework for Pakistani institutions developed during this campaign is strongly endorsed as the comprehensive, effective solution.*

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### **VISION STATEMENT**

*Empower Pakistan's health care community with knowledge and education to control the HIV epidemic and future HIV transmissions **and to build capacity in the HIV services sector by adopting the Build Capacity framework.***

**The APPNA-MERIT HIV Committee** is a group of professionals working in the fields of Infectious Diseases, Internal Medicine, Family Medicine, and Public Health in North America with the primary goal of helping Pakistani healthcare providers and public health officials to understand and control Pakistan's HIV epidemic.

The **HIV in Pakistan Project** aims to increase awareness and reduce stigma about HIV/AIDS by empowering healthcare providers in Pakistan with knowledge about HIV disease and providing them the right tools to care for people living with HIV/AIDS and prevent future transmission. This is a volunteer-based academic collaboration designed and led by the APPNA-MERIT HIV committee. During 2021-2022, the committee conducted a series of educational webinars and invited HIV care experts from the U.S., and physicians and health care workers from Pakistan, to discuss multiple aspects of HIV, the challenges encountered in providing quality of care to people living with HIV in Pakistan, and ways to control future HIV transmissions. These webinars were a robust exchange of knowledge, information, and goodwill. Based on these two years-long intense efforts of extensive outreach, feedbacks, and exchange of relevant experiences from Pakistan with high-level practical and successful experience from the USA, Dr. Fizza Gillani presented **"Build Capacity,"** a novel framework which was well received and appreciated by all participants on November 6<sup>th</sup>, 2022, webinar. It was also determined that this proposal is the most feasible, and consensus solution to build capacity in Pakistan.

This World AIDS Day 2022 report summarizes the pertinent issues raised during these 2 years of intense exchanges and strongly advocates for immediate, urgent attention to address the deadly trajectory of HIV in Pakistan **by adopting this new suggested framework, which can be a sustainable solution for Pakistan.**

**HIV infection** is a chronic viral infection which progresses with little or no symptoms for an extended period until the first symptoms of acquired immunodeficiency syndrome (AIDS) appear. HIV is contagious and can spread in three ways: (1) by blood products (unclean needles or contaminated blood), (2) by mother to child during pregnancy, labor, or nursing, or (3) by having unprotected sex with any HIV positive person. Antiretroviral treatment for HIV is safe, highly effective, and lifesaving. It must be taken lifelong as it is NOT curative. Once patients are on ART and are adherent, their HIV virus becomes undetectable, which means untransmissible. In summary, **Antiretroviral treatment is the best way to prevent transmissions.**

**Burden of disease in Pakistan and shifting trends in transmission:** According to UNAIDS (2021), there are 210,000 estimated people living with HIV (PLWHIV) in Pakistan, yet only 53,714 PLWHIV know their HIV status. Antiretroviral therapy (ART) is provided free of cost at 51 antiretroviral centers and 33,007 PLWHIV are on ART, out of which 23% are virally suppressed.

In the last 7 years, Pakistan has witnessed a shift in transmission from “sex to iatrogenic”, where at least 5 out of 7 of Pakistan’s HIV “hot-spots” have occurred in children. Investigations of these outbreaks have revealed that unregulated use of contaminated needles for routine vaccinations, intramuscular and intravenous medical treatments, and unscreened blood products were the main causes of HIV transmission.

### **Challenges – Gaps in Knowledge, Attitudes and Practice**

The following sections highlight areas which require targeted attention and a multifaceted approach for meaningful changes in the status quo.

#### **GAPS IN KNOWLEDGE**

- a. The most important gap in knowledge is that there is no accurate estimate of the burden of HIV disease. Across all 51 ART centers, the number of patients who are registered and know their HIV status are less than 20 percent of the estimated number of PLWHIV.
- b. Despite a National HIV surveillance system, poor integration of national and provincial databases has undermined the utilization of the HIV reporting data.
- c. There is also evidence that this data is not being monitored, reviewed, or critically evaluated; without this, we cannot estimate the true disease burden and develop targeted interventions.
- d. There is no mandatory formal training in medical colleges or residency programs for outpatient care of HIV infection. Exposure of students and residents to HIV patients in the inpatient settings is rare.
- e. Lack of trained staff and knowledge regarding HIV care at the ART centers, affects retention rates and outcomes.

#### **GAPS IN ATTITUDES**

- a. Stigma associated with this sexually transmitted disease plagues the lives of PLWHIV and is the greatest barrier to health care access. Stigma is worse for key populations, who face life threatening discrimination at the hands of the health care community and the public at large. Violence and discrimination are daily challenges for key populations.
- b. Rampant myths regarding “contagiousness” of the disease have led to isolation and mental illness, especially depression and hopelessness. In children, neglect and rejection lead to early demise and failure to thrive.
- c. Stigma among health care providers remains another major challenge on the frontlines. Refusal to care is common among surgical and gynecological specialties. Health care providers remain shy and reluctant to discuss issues pertaining to “sexually transmitted diseases”
- d. Extremely low literacy rates in Pakistan pose a major challenge, especially literacy rates among women.
- e. Medical colleges and academic institutions remain unprepared for the challenges their students will face on the frontlines of HIV epidemic.
- f. Denial especially in the health care community remains the go to response when addressing issues surrounding sexually transmitted infections. The topic of sex remains taboo. Mental illness and substance abuse remain intricately connected with the spread of HIV. Those under the influence of drugs are prone to unsafe sexual practices.

## GAPS IN PRACTICE

- a. The most important gap in practice remains the *leadership and governance gap*. There is a *major disconnect* between the three major stakeholders (i. PLWHIV, ii. Global fund and governing agencies, and iii. Health care providers and NGOs).
- b. Despite adequate funding and strategic policy frameworks provided by the Global Fund, there remains a painful administrative gap marked by an absence of effective oversight, follow-through, regulation, and accountability.
- c. Lack of ownership of this public health crisis by Government officials and appointment of leaders with no expertise in public health issues has affected the program performance.
- d. Except for select ART centers in the major cities, majority of ART centers are failing to retain patients in care with high rates of attrition and lost to follow up as well as poor adherence to ART. This is due to poorly trained staff with lack of dedicated physicians and counsellors.
- e. Most ART centers are in major cities with limited geographic coverage. Baluchistan, the largest province geographically, has only one functioning ART center in Quetta which despite having excellent retention rates has its geographic limitations in number of patients it can serve. There is need for more well-staffed ART centers in Baluchistan, KPK.
- f. Poor infection prevention and control practices in health care settings are another crucial practice gap, causing iatrogenic transmission of HIV in the public.
- g. Poor health infrastructure and stigma have increased reliance on Community Based Organizations (CBOs) and NGOs for facilitating HIV diagnosis and care in key populations. Despite the claims that these NGOs are there to combat stigma it is important to explore if an affiliation with a specific CBO/NGO is itself a cause of stigma before assigning important responsibilities to CBOs. There is a general lack of transparency in how these CBOs operate and they may not have the expertise to address cases properly.
- h. There are significant implementation challenges in Needle Exchange Programs, especially where there is no record of needle/syringes collected.
- i. There is an absence of formal detox services and lack of opioid substitution therapy in Pakistan.

## **“Build Capacity: Adopt an ART Center” Project Framework**

The “Build Capacity: Adopt an ART Center” project aims to develop and strengthen the skills, abilities, processes, and resources that Pakistan’s health care system needs to provide better HIV care services as well as to control future HIV transmissions. The project aims to develop processes that are sustainable by using local academic institutions partnered with local ART center to develop state-of-the-art HIV clinics that ensure the best quality care is available to all PLWHIV. This project is shared with everyone on the 35th annual World AIDS Day (WAD) on December 1<sup>st</sup>, 2022. This year's global theme for WAD is "**Equalize**", which serves as a guide for us all to help end HIV/AIDS epidemic by: (1) increasing availability and quality of services for HIV treatment, testing, and prevention, (2) reforming policies and practices to help reduce stigma faced by people living with HIV, and (3) ensuring that resources are shared to enable equal access to the best HIV science. This all will help control future HIV transmission

***In the “Build Capacity” framework, local medical colleges are encouraged to adopt their local ART Center to build mutually beneficial partnerships. These partnerships will improve the lives of patients living with HIV and build a pipeline of future healthcare professionals in this field. We propose the following four groups to collaborate and create an integrated system of HIV care services in Pakistan.***

### **(1) International partners**

HIV Committee, Providence-Boston CFAR, faculty members from other USA universities, and other volunteers will provide their services free-of-cost to participating medical colleges and ART centers, including:

- a. Provide knowledge and training to participating ART center staff on a fixed interval
- b. Provide training materials – for students, junior faculty, and ART staff
- c. Provide online HIV care sessions with international HIV experts
- d. Guide medical students working in the ART centers to design research or awareness projects

### **(2) National AIDS Control Program (NACP) and Provincial AIDS Control Program (PACPs)**

We are not suggesting any changes in the NACP or PACPs' ownership of the ART centers, nor any changes to procedures they currently follow. However, the first responsibility of these programs is to provide updated integrated data on burden of disease at a regular interval to the health care community. In addition, it would be useful if these departments can help to scale the following interventions:

- a. Collaborate with relevant health departments and advocate for an urgent attention to the issue of injection overuse and syringe reuse
- b. Encourage stringent infection control practices in health care settings
- c. Mandate education of physicians, nursing, and ancillary staff at all levels
- d. Regulate ART staff training and education with certification requirements at regular intervals
- e. Monitor dental clinics, barber shops, and quack clinics for HIV outbreaks, and hold these organizations to predetermined standards of infection control practices and surveillance
- f. Screening of blood products for HIV in addition to Hepatitis B and C should be non-negotiable
- g. Encourage CBOs and private sector physicians to join hands in this war against HIV
- h. Encourage social, multi-, and print media to step up in educating the public to destigmatize HIV

### **(3) Public/Private Medical Colleges, Nursing Schools, and other regulatory institutions**

Medical schools are encouraged to create partnerships with HIV and other Infectious Diseases (ID) programs like TB, Malaria, Hepatitis, and Dengue, to prepare students to manage future workload. Medical schools need to provide education in the classroom and clinical settings to prepare students for future. Actions should include:

- a. Teach all medical students about patient privacy and confidentiality, and how to offer preventive support to patients by learning more about HIV testing and Pre-Exposure Prophylaxis-offerings. Instruct students about respectful and professional behavior while dealing with patients, especially PLWHIV.
- b. Offer courses described above to all medical students and junior faculty before sending them to ART centers. Offer basic courses about HIV in the classrooms to reduce stigma, as well as courses on proper infection control to teach students how to save themselves in case of occupational exposure.
- c. Train all students to provide counseling before and after HIV testing, and to educate patients on the benefits of ART and adherence, to adopt safe practices in healthcare practice by not reusing needles from one patient to the next, and to create awareness in patients about consequences of needle sharing during recreational drug use and other circumstances.
- d. Create clinical rotations for students to go to ART centers, where they receive clinical experience on treating HIV patients, counselling patients/families, and following standard practices and precautions.
- e. Encourage research in the fields of HIV and Public Health. Task students with drafting a research paper on their local ART Center or present different cases in clinical meetings and require senior faculty to mentor these students. Create community education teams of students and faculty, in collaboration with local social work agencies or NGOs, and arrange conferences and webinars with help from international experts.

- f. Support volunteerism by encouraging students going to ART centers to create volunteer projects for the local community of PLWHIV, such as community awareness and education with the help of local leader.
- g. Reward students going to ART centers with proper course credits and offer any benefits in the form of scholarships or any other educational or financial incentives.
- h. Other than medical students, we have post-graduate Physicians (FCPS and MCPS trainees) to help on this frontier. The College of Physicians and Surgeons of Pakistan (CPSP) can mandate HIV training/rotation as part of the training/graduation requirement. All academic institutions/tertiary care Hospitals in Pakistan have FCPS trainees, and they should be required to rotate at ART centers.

#### **(4) ART Centers**

ART Centers can play a crucial role in creating integrated HIV care programs. To start this initiative, they should encourage and accept medical students to work with them, hold regular meetings between ART staff and students to discuss the gaps in service delivery, and arrange HIV awareness, education, and treatment sessions with international help as discussed above.

- a. Most of the ART centers have a shortage of staff to properly serve PLWHIV. With the help of appropriately trained students and junior faculty, ART centers can offer more services to patients.
- b. ART physicians and staff can acquire the latest knowledge and techniques by attending seminars, conferences, and other trainings offered by the medical colleges.
- c. ART Center physicians can serve as medical school faculty members and teach about HIV, as well as mentor students and junior faculty members on HIV care issues and projects. These initiatives will provide ART center's providers opportunities for further growth in their careers.
- d. All additional program related activities will have to be linked with tangible reward mechanism for those delivering the services. Institutions can offer stipends for pre-defined and targeted teaching activities. Without these career building opportunities for ART center physicians, their role cannot be expanded, and services cannot be enhanced.
- e. ART centers can refer their patients to medical college labs and/or other facilities for any kind of healthcare issues, such as disease testing, inpatient care services, and others
- f. ART physicians and staff will have the chance to join their affiliated medical college community for educational and professional development opportunities
- g. ART physicians can get chances to present complicated cases to get feedback from peers.
- h. ART physicians can also serve as the primary care doctors for their HIV patients.
- i. In the long-term, these activities will help to reduce HIV stigma and will encourage students to work with HIV and other infectious diseases after completing their degrees.

**In summary**, under **Build Capacity** framework, partnerships between medical colleges and local ART Centers in Pakistan, supported by the volunteers of this international project alliance, can play a vital role in controlling Pakistan's HIV epidemic through, (a) educating themselves, their colleagues, their students, their patients, their communities, and (b) creating strategies that complement efforts by government agencies.

*The HIV epidemic remains a challenge in Pakistan—the best way to address is to adopt the **Build Capacity** framework to **equalize** the provision of HIV services to all people at-risk of HIV*