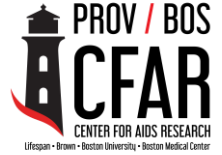




HIV in Pakistan: Past, Present and Future



BY

FIZZA S. GILLANI, PHD

**PROVIDENCE/BOSTON CENTER FOR AIDS RESEARCH
ALPERT MEDICAL SCHOOL OF BROWN UNIVERSITY
THE MIRIAM HOSPITAL
RHODE ISLAND, USA**

AT

**ASSOCIATION OF PHYSICIANS OF PAKISTANI DESCENT OF
NORTH AMERICA (APPNA)
42ND ANNUAL CONVENTION
JULY 3-7, 2019, ORLANDO, FLORIDA**



BROWN

Objectives



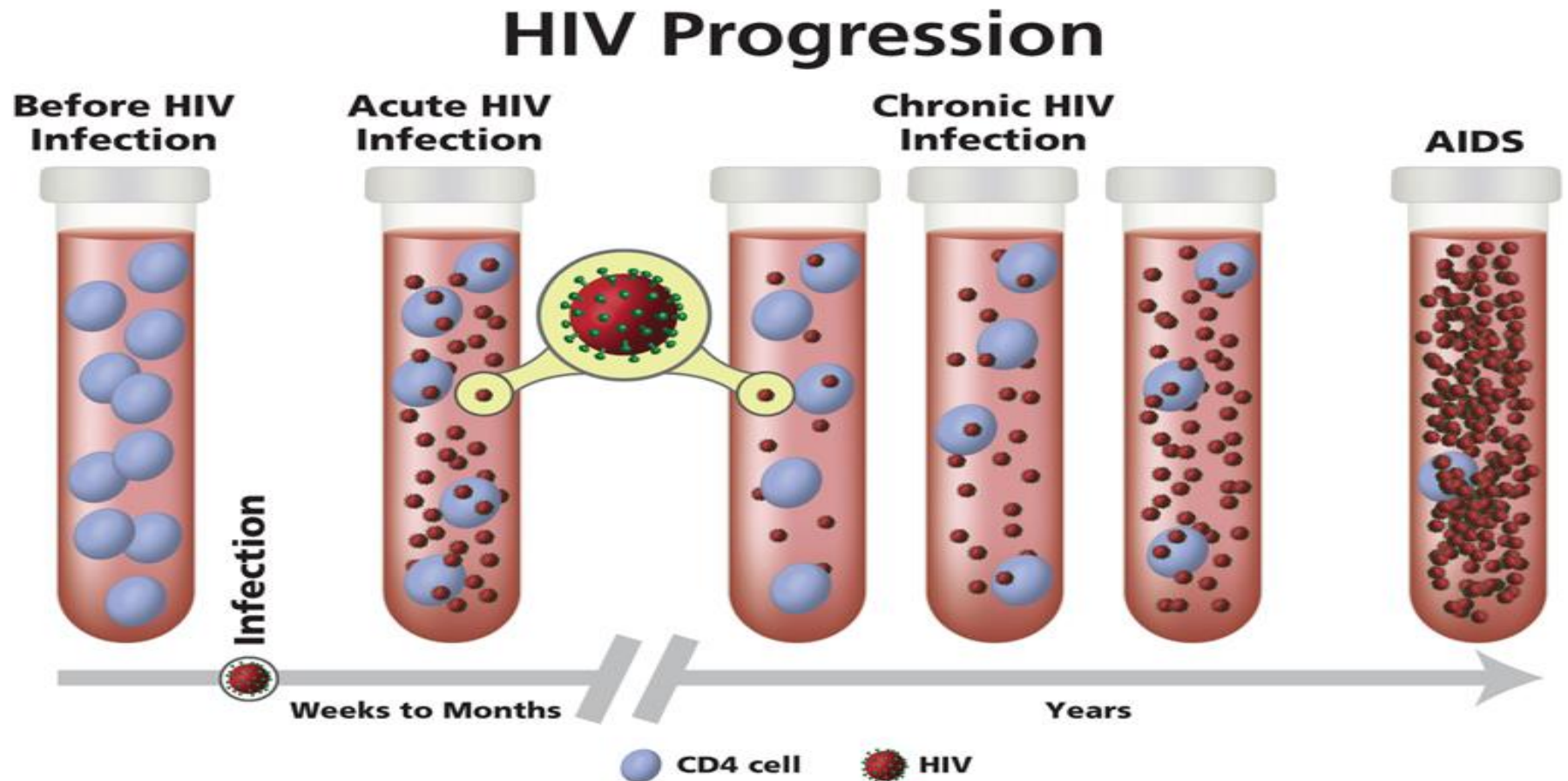
- ❑ Understand facts about the HIV disease in general and history of the HIV disease specific to Pakistan
- ❑ Discuss different aspects of HIV/AIDS disease including disease progression, stages, and transmission modes
- ❑ Acquire knowledge of recent efforts by Pakistani community to help healthcare system in Pakistan to manage and control HIV epidemic.
- ❑ Realize the importance of open communications between healthcare providers and patients and their families about the disease

HIV ~~=~~ AIDS



Human Immunodeficiency Virus (HIV)

identified in 1980, from group of viruses called “retroviruses”.



Estimated HIV Treatment Costs



The estimated average cost of HIV care in the ART era is:*

- Annual
 - ✦ \$23,000 (in 2010 dollars).
- Lifetime HIV Treatment costs:
 - ✦ \$379,668 (in 2010 dollars)

○ *CDC reports: <https://www.cdc.gov/hiv/programresources/guidance/costeffectiveness/index.html> (accessed 4/1/2019)

History of HIV in Pakistan -1



- First HIV+ case officially reported = 1987
- In most research studies and government publications, HIV was attributed to Key Populations ONLY

History of HIV in Pakistan – 2

(results from 64 research studies metadata analysis)

Type of Populations	# of Studies	Population Tested	HIV+ Cases	HIV+ %	Study Years
Blood Donors	30	4,673,326	563	0.012	1986-2015
General Population	7	154,452.	490	0.32	1993-2012
Sex Workers/ Transgenders	11	8148	180	2.21	1990-2013
Diseased Population	16	22,399	106	0.47	1986-2016
IDUs	6	1920	289	15.05	1988-2013
Prisoners	8	18,541	245	1.32	1993-2009
Refugees & Foreigners	2	581	12	2.065	1990-2010
Spouses of HIV- infected Individuals	2	2006	103	5.13	2012-2015
Pregnant Women	2	1077	2	0.19	1993-2008
Total	64	4,882,450	1990	0.041	1986-2017

WHO- HIV In Pakistan Report (12/1/2018)



- Total population = 202 million (2018 Number) (216,459,640 June 2019)
 - Pakistan is 6th largest country (in population), and 33rd in area (881,913 square km)
- Estimated people living with HIV = 150,000
- New HIV infections annually = 20,000 (the highest increase among all countries in the region)
- Only 16% of the estimated 150,000 people have been tested (16% of 150,000 = 24,000)
- Only 9% of those tested are on Antiretroviral Therapy.
- No statistics on continuous engagement and retention are available.
- Mortality among diagnosed is increasing

HIV epidemic spreads at alarming rate in Pakistan (WHO)



- The remaining (not tested) are walking in the communities as carrier of HIV infection and can transmit to others (even to their unborn babies)
- HIV epidemic stays largely concentrated among the key populations, including IDU, transgender communities, sex workers, and their clients and MSMs, but is spreading to general public.
- WHO official estimate that Pakistan has seen a 45% increase in new HIV infections since 2010
- It will continue to increase if implementation rates of intervention remain at current levels.
- Pakistan is among the lowest of all regional countries in diagnosing people who are infected and linking them to care and treatment
- WHO Monitoring Desk – Dec 3, 2018 (<https://nation.com.pk>), accessed 4/1/2019

April 2019- A wakeup call for whole country



- In Larkana Before April 2019 (Research Studies):
 - 2016: Renal disorders Study – 56 HIV+ out of 205 tested (27.3%)
 - 2008: Transgender Sex workers: 1181 tested and 75 were HIV+ (6.4%).
- Between 4/25/2019 to 7/1/2019
 - Total Tested = 30,686
 - HIV+ = 894
 - Adults = 159
 - Children = 735

“HIV in Pakistan” Project Timelines



- I presented a small HIV project outlines at the Young Physicians Training Seminar in Boston, April 20th. The seminar was organized by Dr. Rizwan Naeem and APPNE Board.
- Also published a one-page report entitled “HIV In Pakistan” in the APPNE’s annual booklet on same event.
- HIV testing news started coming out from Larkana on April 25th.
- Dr. Aziz Soomro (basically from Larkana), felt the pain and contacted Dr. Naeem to help.
- Dr. Naeem contacted me and asked if I want to start the project from Larkana on May 13, 2019.

Project Goals



To reduce stigma and increase awareness about HIV/AIDS disease by empowering healthcare providers, patients and their families, and communities in Pakistan.

Aim 1



**Create an educational campaign to reduce stigma and increase awareness about HIV/AIDS by empowering healthcare professionals, patients, and their families.
(Aim 1 consisted of 6 webinars – summary of these webinars in next slide)**

HIV/AIDS COMMUNICATIONS PROJECT: HIV IN SINDH, PAKISTAN

WEBINAR SERIES:

1: HIV DISEASE: MYTH AND FACTS

FIZZA S. GILLANI, SYED IFTIKHAR HUSSAIN, RIZWAN NAEEM
MAY 19th, 2019, 12:00-1:30 PM EDT

2: HIV TESTING, STIGMA, AND PATIENT-PROVIDER COMMUNICATIONS

GUEST SPEAKER: PHILIP CHAN, MD; RIZWAN NAEEM, MD
MAY 26th, 2019, 12:00-1:30 PM EDT

3: THE HIV CARE CASCADE: AN EXAMPLE FROM RHODE ISLAND

GUEST SPEAKER: JOSEPH M. GARLAND, MD
JUNE 2nd, 2019, 12:00 – 1:30 EDT

4: PREVENTING MOTHER TO CHILD HIV TRANSMISSION AND CARING FOR INFECTED INFANTS AND CHILDREN

GUEST SPEAKERS: SUSAN CU-UVIN, MD; JEROME LARKIN, MD;
SABINA HOLLAND, MD
JUNE 9th, 2019, 12:00 – 1:30 EDT

5: CARING FOR COINFECTED PATIENTS (HIV-TB, HIV-HEP C, HIV-HEP B)

GUEST SPEAKERS: NATASHA RYBAK, MD; MARTHA SANCHEZ, MD
JUNE 16th, 2019, 12:00 – 1:30 EDT

6: FOSTERING HOPE: THE ROLE OF MENTAL HEALTH CARE IN HIV TREATMENT FROM START TO FINISH

GUEST SPEAKERS: JAMIE KENNEY, PHD, AZIZ SOOMRO, MD
JUNE 23rd, 2019, 12:00 – 1:30 EDT

PROJECT GOALS:

- Teaching and training healthcare providers on HIV disease to reduce stigma and increase awareness about HIV.
- Help develop capacity including HIV education modules in different settings in Pakistan.

Project Team: Fizza Gillani, PhD; Rizwan Naeem, MD; Syed Iftikhar Hussain, MD; Aziz Soomro, MD; Farooq Soomro, MD

**PROVIDENCE/BOSTON
CENTER FOR AIDS
RESEARCH (CFAR),
BROWN UNIVERSITY**



**JINNAH SINDH
MEDICAL UNIVERSITY
(JSMU)**



**JINNAH SINDH MEDICAL
UNIVERSITY ALUMNI
ASSOCIATION OF NORTH
AMERICA (JSMUANA)**



**APPNA INSTITUTE OF
PUBLIC HEALTH (AIPH)**

Some Takeaways from Webinar Series



- Providers are in shock
- Society is not accepting HIV patients
- HIV disease knowledge is limited in healthcare providers community in rural areas and is almost NONE in general public.
- After getting HIV+ results: patients reactions are not manageable (horrified, screaming). There was no pre- or post-test counseling concept.
- Hospital administration wondered if they need to create separate wards for the HIV+ patients (are HIV+ allowed in general wards?)
- Local doctors checked the blood stored at local blood bank and found a few HIV+ blood donations. On Inquiry, they were told that this is for thalassemic patients. (means they were going to die anyway - so it is OK to give this HIV+ blood to them)
- One Hemodialysis machine is used for multiple patients
- Hospital management was wondering if any HIV positive patient can share the hospital room with any non-HIV patient?
- Blood is being sold by people for money. Blood bank is buying blood from the streets donated by ????
- Can HIV+ patient work????

Webinars – urgent needs pointed out by attendees



- Overall, more than 500 participants attended.

Screening, treatment, prevention and education

Diagnostic kits and establishment of Treatment ward, Health education (preventive)care and support of the patients.

Viral load test

DRM test and analysis

Establishment labs and Diagnosis kits. ward for Admission .to arrange Training programs and awareness .treatment including drugs.

We need a best pathologist and laboratory for tests of patients we have no facility for such tests

Training

Training on treatment , Stigma, etc

Proper diagnosis

Psychosocial Aspects

Diagnosis , LAB, preventive and curative

Treatment lab and the prevention

Basic information about HIV its proper treatment how it spread what is precautions and a HIV counseling center should be available in every town.

Lab, treatment and prevention

Aim 2



**Help develop and enhance the existing
HIV care infrastructure in the affected
areas**

Aim 3



- **3-a: Work with local medical schools to train new generations of healthcare providers on how to manage the HIV/AIDS epidemic in Pakistan.**
- **3-b: Work with colleges, paramedical and nursing schools, and other interested educational institutions to include more HIV awareness and prevention modules in their curriculum.**

Aim 4



Work with local institutions and governments to provide guidance in HIV treatment including co-infections and help secure resources as needed.

Control Myths, reduce HIV/AIDS Stigma



HIV/AIDS cannot be spread through:

Saliva

Sweat

Tears

Casual Contact such as sharing food utensils, towels, and bedding

Swimming pools

Using same telephone sets

Toilet seats

Biting insects (such as mosquitos)

Hugging any person who have the disease

Shaking hand with any person who have disease

Known HIV Transmission Modes-1



- Iatrogenic mode of infections: shared contaminated needles/OR any instruments used by healthcare providers.
- Heterosexual and MSM unsafe sex with any HIV+ person
- Shared needles by injected drug users
- Shared crack-cocaine users snoring instrument.
- Contaminated Blood transfusions.
- Shared contaminated razors within a household

HIV Transmission Modes-2



- Shared contaminated:
 - ✦ Shaving blades by barbers or beauty parlors
 - ✦ Instruments used by dentists
 - ✦ Instruments used by mid-wives
 - ✦ Instruments used for: Ear/nose piercing, and Circumcisions etc.

- Children breastfed by any other women (not biological mother)

- Any other specific to Pakistan ??? Any ideas???

Let's Do our part!!!



- **Educate** providers, patients, and communities about HIV/AIDS in Pakistan
- **Talks about HIV disease** to increase awareness at different healthcare and social platforms
- **Training webinars**/materials on increasing communication between patients and providers to discuss HIV including
 - Making patients agree to go for HIV testing
 - Discussion on appropriate transmission methods and risks
- **Training primary care providers** to provide HIV care??
- **Clinic or hospital staff training**

OVERALL CHALLENGES !!!!



CONTROL HIV TRANSMISSIONS

Diagnose

Start Treatment

Keep Patients Virally Suppressed

PREVENT FUTURE OUTBREAKS

Questions



??

How long the HIV virus can survive in a syringe?



It takes whole world to control HIV transmission



[This Photo](#) by Unknown Author is licensed under [CC BY-NC-ND](#)

Perinatal Transmission



HIV

TRANSMISIÓN VERTICAL

This Photo licensed under CC BY-NC



Thanks !!!



Contact if you are interested!

[Fizza Gillani@Brown.edu](mailto:Fizza_Gillani@Brown.edu)

fgillani@lifespan.org

- Team:
- Fizza S. Gillani, PhD
- Rizwan Naeem, MD
- Syed Iftikhar Hussain, MD
- Aziz Soomro, MD
- Farooq Soomro, MD

Acknowledgements



- Providence-Boston Center for AIDS Research (CFAR) at the Miriam Hospital, Providence, RI, USA
- Brown University Medical School, RI, USA
- Jinnah Sindh Medical University (JSMU), Pakistan
- Jinnah Sindh Medical University Alumni Association of North America (JSMUAANA)
- APPNA Institute of Public Health, Pakistan
- APPNA / APPNE