

# **Rapid Situation Assessments**

of HIV prevalence and risk factors among people injecting drugs in four cities of the Punjab.

Mandi Bahauddin . Rawalpinc

Rawalpindi . Gujranwala . Sheikhupura

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Nai Zindagi is contracted by the Punjab AIDS Control Program with support from the World Bank to prevent the transmission of HIV among people injecting drugs in 12 cities of the Punjab. In the four cities of Lahore, Sargodha, Faisalabad and Sialkot situation assessments have been completed and comprehensive HIV prevention and harm reduction services have been established and continued uninterrupted since 2005.

To scale up and initiate services in the additional four cities of Mandi Bahauddin, Rawalpindi, Gujranwala and Sheikhupura this situation assessment provides contextual information to design, plan and implement comprehensive needs based HIV prevention services in these 4 cities.

In the absence of baseline data this assessment can also be helpful for monitoring and evaluation of program impact.

This assessment compliments the collection of National data on injecting drug use and HIV in Pakistan. It will help inform policy makers and other stake holders to increase advocacy for an expanded response to the prevention of HIV among people injecting drugs in Pakistan.

We are thankful to all study participants who in-spite of their difficult circumstances, ill health and a stigmatized status actively and openly contributed to this study.

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# **EXECUTIVE SUMMARY**

This assessment of HIV prevalence among people injecting drugs in the four cities of Mandi Bahauddin, Rawalpindi, Gujranwala and Sheikhupura was conducted in July-August 2009.

This assessment includes city-wise mapping for size estimates of people injecting drugs, identification of sites where injecting is prevalent, estimates of HIV prevalence among people injecting drugs through provision of VCCT services (confirmation of reactive samples in the Public sector laboratories) and collection of relevant behavioral data.

A total number of 2,246 street based persons injecting drugs are estimated in the 4 cities of which 1200 (approximately 50%) were part of this assessment.

The highest HIV prevalence (53%) was in the city of Mandi Bahauddin where a majority (93%) inject 'marfia' (a morphine based locally fabricated tablet).

This is the first time ever that a city has such a high prevalence of HIV among people injecting drugs in Pakistan and where such a large proportion use a drug (marfia) not recorded in significant numbers in earlier assessments in Pakistan.

Mandi Bahauddin also has the highest proportion of estimated numbers of persons injecting drugs (37%), the highest percentage of married respondents (55.3%) and the longest history of injecting among the four cities.

In Rawalpindi where a majority inject heroin (99%), HIV prevalence was 23% where as in 2007 it was 2.3% according to the National RTI study conducted by LSHTM and NACP.

An increase has also been seen in Gujranwala where in 2006/2007 HIV prevalence was 1% according to HASP Round II and 8% in this assessment. HIV prevalence in this assessment in Sheikhupura was 21%. In both these cities over 80% of the respondents inject cocktails of Buprenorphine with Avil and Diazepam.

HIV prevalence in the 4 cities can be attributed to high levels (above 70%) of sharing of contaminated syringes and needles, due to lack of HIV related information and the absence of HIV prevention services.



A majority of the respondents belonged to the respective cities except Rawalpindi. In Rawalpindi 33% of the respondents had migrated from other cities and 43% of the respondents lived on the streets.

In the other cities a majority lived at home and used the streets only to score and or use drugs. With the exception of Rawalpindi, almost half of the respondents from the other 3 cities were married and lived at home with their wives and children.

The majority were illiterate and unskilled, generating income from daily wage labor sufficient to support their drug use.

Ninety-one percent of the respondents reported ever having had sex and a majority (82%) of the married respondents admitted having had sex in the past six months with their regular female partner (mostly their wives). Considering that 68% of all respondents who had sex never used a condom, there is a clear possibility of transmission of HIV from people injecting drugs to their wives, and from infected mothers to their children.

An alarmingly high percentage (19.5%) of the respondents initiated injecting below the age of 18 in all the 4 cities. This shows a trend towards an early shift to injecting from oral use of illicit substances.

The main reason for this shift is peer pressure and is consistent with information collected in earlier studies. In Mandi Bahauddin 64% of the HIV positive persons injecting drugs were between 18-24 years of age.

Seventy percent of the persons injecting drugs are sharing used syringes in the 4 cities which is the main reason for transmission of HIV in this group at risk. In cities where HIV prevention services and NSEP (Needle Syringe Exchange Program) exist and coverage is adequate, sharing is much lower and over 88% reported having used a new syringe in their last injection (HASP Round III 2008).

Of the 80% respondents who had been to jail a majority reported having injected drugs in prison. Above 90% expressed an immediate need for drug treatment but due to cost of treatment and non availability of services only 14% could access drug treatment in the last year.

Only 29% of the respondents had ever heard of HIV and only 15% knew that it can be transmitted through unsafe injecting.

There is an immediate and urgent need for a scaled up response for HIV prevention services in these 4 cities.

#### HIV PREVALENCE among street based persons injecting drugs in the four cities



RAPID INCREASE IN HIV PREVALENCE AMONG PEOPLE INJECTING DRUGS ACROSS CITIES DUE TO HIGH LEVELS OF NEEDLE AND SYRINGE SHARING IN THE ABSENCE OF HIV PREVENTION SERVICES

**B**ased on the results of mapping a sampling frame was developed to ensure a geographical coverage of the entire city. A uniform sample size of 300 study participants was derived to get adequate statistical power for each city.

Study participants were randomly recruited from the estimated number of persons injecting drugs to obtain a representative sample. To participate in the study the respondents currently injecting drugs were required to be 18 years of age or above.

Standard protocols were followed to ensure and maintain confidentiality of all respondents. The ethical conduct of this study was approved by the Institutional Review Board (IRB) affiliated with the Department of Health and Human Services (DHHS) of the US Government.

Particular care was exercised and protocols were followed during blood sampling and collection. All participants were provided monetary compensation for their time and travel to the study sites in addition to clean syringes, condoms and social supplies.

All participants were provided VCCT and on the spot testing was carried out on Rapid Test Kits (Determine - Abbott).

Reactive samples were transported for confirmation through ELISA (Enzyme Linked Immunossurbent Assay) to the Institute of Public Health, Lahore; Referral Laboratory of the NACP, Islamabad and DHQ Hospital, Sargodha.

A total number of 1206 persons injecting drugs were tested of which 314 were HIV positive. The overall prevalence in the 4 cities was 26%.

The bars in red indicate already recorded HIV prevalence in the past among street based persons injecting drugs.

- Rawalpindi: 2.7% HIV prevalence in 2007 (National RTI study)
- Gujranwala: 1% HIV prevalence in 2006/2007 (HASP Round II)

# **ESTIMATES** of street based persons injecting drugs in the four cities

The mapping was based on methodology developed by the Canada-Pakistan HIV and AIDS Surveillance Project (HASP) with adaptations specific to people injecting drugs. Interviews were conducted with secondary and tertiary key informants to identify sites of injecting drug use in each city. These sites were validated with primary key informants (people injecting/using drugs). The following are the number of spots that were validated and the estimates of street based persons injecting drugs in the 4 cities:



Number of validated spots



Number of street based persons injecting drugs



#### AGE of respondents

40



Rawalpindi has an alarmingly high number (28%) of persons injecting drugs in the 18-24 years of age bracket.

In Mandi Bahauddin among the 18-24 years age bracket 64% are HIV positive.

Also in all four cities a majority now fall under the 18-30 years of age bracket, whereas in the previous studies and RSAs a majority were in the 25-35 years of age bracket. The oldest respondents were from Mandi Bahauddin with a mean age of  $35.4 \pm 9.7$  years.

A majority of the respondents had migrated to Rawalpindi from other cities, to look for work and better economic opportunities.

AN INCREASE IN YOUNG PEOPLE INJECTING DRUGS



## **EDUCATION** of respondents



#### SOURCE of income



Majority of the respondents in all four cities had no formal education and most of those who did were educated up to the primary level.

Sixty four percent of the respondents were employed of which a majority were earning through daily wage labor and some were self employed. Begging was a source of income for 10% of the respondents.

A majority in all the 4 cities were generating income of between Rs.5,000-10,000 per month which is sufficient to support their drug use.

This is probably a reason why less than 3% reported selling drugs and/or engaged in petty crimes.

# MONTHLY income in last 6 months (Pak Rs.)



#### A MAJORITY ARE ILLITERATE, UN SKILLED LABOR FORCE



The highest frequency of married persons (55.3%) was in Mandi Bahauddin. Of these almost half were HIV positive and living with their wives and children.

Considering that regular use of condoms is negligible, wives of people injecting drugs are at extreme risk.

In Rawalpindi a majority were young and living on the streets and unmarried.

#### WIVES AND CHILDREN OF PERSONS INJECTING DRUGS AT RISK OF HIV

# MARITAL status of respondents



## **CURRENT** living status of respondents



Rawalpindi had the highest percentage of people injecting drugs who had migrated from other cities (33%). A shift from smoking, chasing and/or sniffing heroin to injecting heroin in Rawalpindi is recent. Forty three percent of the respondents in Rawalpindi were homeless and lived and used drugs on the streets .

Street based living constitutes parks, grave yards, pavements, shrines and abandoned buildings.

Respondents living at home were living in homes owned by them, their parents (joint family living) or in rented accommodation.

#### IN SMALLER CITIES A VAST MAJORITY LIVE WITH THEIR FAMILIES AT HOME, HENCE MORE FREQUENT CONTACT BETWEEN MARRIED COUPLES RESULTING IN HIGHER CHANCES OF HIV TRANSMISSION THROUGH UNPROTECTED SEX.

## SEX in the past 6 months



PEOPLE INJECTING DRUGS ARE SEXUALLY ACTIVE AND THEIR WIVES AND CASUAL PARTNERS IN SEX ARE AT RISK OF HIV TRANSMISSION DUE TO UNPROTECTED SEX.

Approximately 91% of the respondents reported having had sex.

A majority (82%) had sex with one female sex partner and the rest had sex with multiple partners.

The use of condoms with casual sex partners is less than condom use with regular sex partners, who are often wives of people injecting drugs.

Approximately 66% have never used condoms with regular female partners in the 4 cities.

This also highlights the importance of HIV prevention services targeted at wives and children of people injecting drugs.

## **CONDOM** use with regular female partner





**DRUGS** injected in the last six months

"Marfia" (a morphine based locally manufactured drug) is injected mostly in Mandi Bahauddin and to some extent in Sheikhupura. The tablet is dissolved in water and antihistamine (often Avil) by heating it over a flame. Mean period since marfia is being injected in Mandi Bahauddin is 10 years.

In Rawalpindi a majority inject heroin. This is a shift from smoking, chasing and/or sniffing heroin to injecting heroin and is relatively a recent trend.

In Sheikhupura and Gujranwala use of buprenorphine in combination with anti histamines and benzodiazepines is more common, a trend observed in most studies and RSAs in Pakistan.



MANDI BAHAUDDIN IS THE ONLY CITY SO FAR IN PAKISTAN WHERE SUCH A HIGH PERCENTAGE OF PEOPLE WHO INJECT 'MARFIA' HAS EVER BEEN REPORTED. LONGER PERIOD OF INJECTING WITH HIGH LEVELS OF SHARING RESULTS IN A HIGHER HIV PREVALENCE AMONG PEOPLE INJECTING DRUGS.

## AGE at initiation of injecting



In the 4 cities an alarmingly high percentage of the respondents (19.5%) initiated injecting below the age of 18 years.

The mean age of initiating and/or shift to injecting in all four cities is approximately 25 years.

The youngest age of initiation into injecting drug use at 10 years was recorded in Mandi Bahauddin.

EVIDENCE OF INJECTING DRUGS AT AN EARLIER AGE. IMMEDIATE NEED TO PREVENT THIS SHIFT BY EXPANDING HIV PREVENTION SERVICES SPECIFIC FOR YOUNG PEOPLE.



# **REASONS** for a shift to injecting



Peer pressure remains the major reason for a shift to injecting.

In Rawalpindi, where the trend was to chase, sniff or smoke heroin - getting a quicker high by injecting heroin is the major reason for this shift.

Heroin related reasons also include price, availability and quality issues.

CURIOSITY IS NOT A MAJOR REASON WHY PEOPLE SHIFT TO INJECTING WHEREAS IT IS A COMMON REASON FOR PEOPLE TO INITIATE DRUG USE. WHERE SERVICES ARE IN PLACE 'PEER EDUCATORS' FROM AMONG THE INJECTING COMMUNITY CAN PLAY A VITAL ROLE TO PREVENT THIS SHIFT AND SHARING.





## SHARING of used syringes by respondents

#### **INJECTED** by a street-based injecting expert



Sharing of used and contaminated syringes and needles is the main cause of transmission of HIV among people injecting drugs. Approximately 70% of the persons injecting drugs are sharing used syringes in the 4 cities. The lowest sharing (53%) is in Gujranwala which is still very high.

Respondents that always used a clean syringe mostly bought them from pharmacies.

Cities where NSEP (Needle and Syringe Exchange Program) for people injecting drugs have been established and coverage is adequate, data shows that up to 96% have access to clean syringes, which directly results in lower sharing and hence reduced transmission of HIV.

In addition detailed data and information have been recorded related to sharing and syringe use to inform programming issues and needs.

Street based injecting experts (street doctors) are often sought by people injecting drugs to assist in injecting. They often inject multiple persons with the same syringe.

If hired and engaged alongside HIV prevention service delivery, these injecting experts can play an important role to reduce sharing and provide clean syringes to their existing client network.

#### HIGH LEVELS OF SHARING RESULTS IN HIGH PREVALENCE OF HIV AMONG PEOPLE INJECTING DRUGS.



## **DISEASES** reported by respondents in the recent past



Respiratory Tract Infections often reported as asthma are very common among people injecting drugs. This may be a direct result of a low immune system, poor living conditions and/or malnutrition. This may also be a symptom of TB.

Higher incidence of seizures among respondents in Mandi Bahauddin and Rawalpindi, compared to Gujranwala and Sheikhupura could be related to the combination of barbiturates in the injecting cocktail and/or impurities of non pharmaceutical grade drugs. TB was reported by 4.6% of total respondents overall in four cities.

In addition approximately 20% of the respondents reported to have had major and minor surgeries during their life time.

Other health related risk factors that were prevalent among respondents included <u>receiving</u> <u>injections from quacks (38%)</u>, receiving blood transfusion (6.7%), tattooing and piercing (35%).

Quacks : unqualified allopathic practitioners

HIV TRANSMISSION RISK OVERLAP BETWEEN HIV POSITIVE PERSONS INJECTING DRUGS AND GENERAL POPULATION ACCESSING INFERIOR QUALITY HEALTH CARE SERVICES, PARTICULARLY QUACKS USING NON-STERILE SYRINGES AND/OR NEEDLES.



#### **STIS** reported by respondents in the recent past

STI symptoms reported by the respondents from Rawalpindi were relatively higher than usual compared to STI prevalence among persons injecting drugs reported in other studies in Pakistan.

Considering that 41% of the respondents reported having sex during past six months and only 9% of those reported regular condom use, the transmission of HIV to their sexual partners is more likely especially in the presence of STIs and high HIV prevalence.

Most (82%) of the respondents have reported single sex partners.

HIV PREVENTION SERVICES FOR PEOPLE INJECTING DRUGS MUST INCLUDE HIV AND AIDS PREVENTION, DIAGNOSTICS, TREATMENT, CARE AND SUPPORT SERVICES FOR THEIR WIVES AND CHILDREN.

THERE IS EVIDENCE OF INJECTING DRUG USE AND HIV IN PRISONS. TARGETED INTERVENTIONS NEED TO BE INITIATED IN PRISON SETTINGS TO PREVENT FURTHER TRANSMISSION IN THIS CLOSED ENVIRONMENT.

# **INCARCERATION** reported by respondents



Approximately 80% of the respondents had been to jail. The majority were arrested on possession of illicit drugs and some for violence and few due to other crimes.

Approximately 56% of those who were arrested and jailed had used drugs in prison.

Of those who used drugs in jails over 70% in Mandi Bahauddin and Rawalpindi injected drugs while in prison. In Gujranwala and Sheikhupura 22% injected drugs in jail.

Sharing in jails was less than sharing on streets however still significantly high (56%).

## DRUG USE in jail by respondents



# **DRUG** treatment ever sought by respondents

A majority of the respondents had never had drug treatment (70%). Major reasons given for not being able to seek drug treatment were high costs and non availability of free treatment services.

Of those who had accessed drug treatment services few (14%) had accessed drug treatment in the past year. The treatment offered was of short duration, primarily a 12-15 days drug detoxification program.

In all the four cities 64% of the respondents had heard of Nai Zindagi and knew of the services it offered. This reflects mobility of clients between cities in Punjab.

# **DRUG** treatment needs of respondents





PEOPLE INJECTING DRUGS ARE A MOBILE COMMUNITY. MOBILITY WILL ALSO RESULT IN HIV TRANSMISSION FROM CITIES WITH HIGH PREVALENCE TO CITIES WITH LOW PREVALENCE AMONG PEOPLE INJECTING DRUGS. PROGRAMS FOR HIV PREVENTION NEED TO INCLUDE DRUG TREATMENT SERVICES ALONGSIDE HARM REDUCTION SERVICES AS PART OF THE CONTINUUM OF CARE.

#### KNOWLEDGE of HIV and/or AIDS



**SOURCE** of information on HIV and/or AIDS

Only twenty nine percent of the respondents in all the four cities had heard of HIV. Those who knew of HIV had heard it from friends, television and few from the existing general health services.

Of the 29% respondents who had heard about HIV, only forty five percent knew how HIV is transmitted.

Sharing of syringes and needles is not considered a risk for HIV by respondents as only 15% knew that HIV is transmitted through sharing of contaminated and used syringes.



EXISTING MODES OF COMMUNICATING INFORMATION RELATED TO HIV PREVENTION NEED TO BE IMPROVED AND ADAPTED TO REACH PEOPLE INJECTING DRUGS AND THEIR FAMILIES.

# **CONCLUSIONS** and **RECOMMENDATIONS**

This assessment highlights new information of injecting drug use and HIV in the 4 cities. It establishes evidence that the selection of cities by the PACP for HIV prevention among people injecting drugs in Punjab was appropriate and correct. In addition it provides sufficient information to plan and initiate a targeted response.

For an improved understanding and response to the increasing HIV epidemic among people injecting drugs country wide, low cost rapid situation assessments are essential. Provincial AIDS Control Programs can initiate these assessments to better plan, cost and respond. These assessments are essential for an effective targeted response to halt and reverse the HIV epidemic among people injecting drugs.

An overall 26% HIV prevalence among people injecting drugs in the 4 cities is high. A very rapid increase of HIV prevalence in Rawalpindi from 2.7% in 2007 to 23% in 2009 is indicative of how efficiently HIV is transmitted when syringe/needle sharing is high, particularly in the absence of HIV prevention services. Few HIV prevention programs for people injecting drugs that were initiated in Pakistan have either closed up or are scaling down to close up. If the rapidly increasing HIV among people injecting drugs is not addressed now, HIV will spill over from this group most at risk of HIV, to their wives and children, to young people now injecting drugs and other associated communities.

To effectively halt and reverse this epidemic among people injecting drugs there is an urgent need to first 'save' already initiated interventions and increase response by initiating targeted comprehensive HIV prevention services at scale, without interruption and based on local good practices of service delivery. Our leadership, the Parliamentarians and Policymakers, National and Provincial Governments, the relevant UN agencies including WHO, Donor agencies in country and abroad, civil society organizations and communities need to collaborate and cooperate more frequently and effectively to ensure services are saved and new ones initiated before its too late.

Forty five percent of the respondents in the 4 cities were married with an average of 4 children per family. In Mandi Bahauddin of the 55.3% who were married almost half were HIV positive. Regular, unprotected sex between the married couples is common and in the presence of reported STIs by the respondents HIV transmission is likely to happen. This has been evidenced in an earlier report titled, The Hidden Truth conducted by GCWA/UNAIDS, the PACP and Nai Zindagi.

Unfortunately the existing comprehensive HIV programs for people injecting drugs in Pakistan DO NOT cater to the specific HIV prevention needs of those who are married and their children. There is a need to incorporate and include services specific to the needs of wives and children of persons married and injecting drugs. A one year pilot was initiated in Lahore by Nai Zindagi in 2009 and supported by the Swiss Agency for Development and Cooperation (SDC), Islamabad. Based on lessons learnt a similar program is currently supported by UNODC, Islamabad in Sargodha. Thanks to these initiatives there is now sufficient documented evidence of what works and is needed. Collaboration and networks need to be initiated to effectively respond to this often neglected, but most affected community. To name a few UN agencies like UNAIDS along-with UNFPA, UNICEF and UNIFEM could play an important role to advocate.

# **CONCLUSIONS** and **RECOMMENDATIONS**

Sixty four percent of the HIV positive respondents in Mandi Bahauddin are between the 18-24 years age bracket. Twenty eight percent of persons injecting drugs in Rawalpindi are also in the 18-24 years of age bracket. This clearly indicates that younger people now inject and are infected and at risk of infection. This trend has increased over the years and is likely to increase.

Young people injecting drugs co-exist with adult populations of people injecting drugs. In order to block or slow down a shift to injecting, programs need to also target people not yet injecting, but using drugs orally. In Pakistan it is estimated that of the approximately 500,000 chronic street based opiate users 20% or 100,000 now inject drugs and increasing. A shift to injecting can be prevented by extending HIV prevention services including drug treatment services to persons not yet injecting. For young people or most-at-risk-adolescents using drugs reintegration with family of origin can be effectively incorporated in programming. UNICEF has played an important role to pilot interventions in Pakistan which have effectively integrated most-at-risk-adolescents with families of origin. These interventions need to be replicated and scaled up.

Approximately 80% of the respondents had been to jail of which 40% had injected drugs in prison. There is recent evidence that HIV prevalence among people using drugs in prisons in Punjab is high. Understandably in a prison setting due to high levels of syringe/needle sharing, HIV transmission will be high.

Prisons in Pakistan need to initiate services to prevent further transmission of HIV among prison inmates injecting drugs and among inmates generally. Provincial AIDS Control Programs and Provincial prison authorities need to closely collaborate to initiate drug treatment and HIV prevention programs in prisons and build upon lessons learnt locally and regionally. UNODC could play an important role in this initiative and bring technical and financial assistance in collaboration with different agencies.

Although 90% expressed an immediate need for drug treatment (drug detoxification services), seventy percent of the of the respondents had never had drug treatment due to high costs of treatment.

Access to drug treatment is an integral part of HIV prevention services and should not be excluded from the HIV prevention package of services. It helps people injecting drug, quit drugs and/or shift to non injecting drug use. Particularly for those who are HIV positive it is the first step to access AIDS diagnostics, treatment, care and support in particular ARVs. In cities where large scale and repeated access to drug treatment has been offered it has reduced injecting. Offering drug treatment services reduces community resistance to needle exchange programs.

#### UNDERSTAND YOUR EPIDEMIC - SCALE UP SERVICES BASED ON EVIDENCE - INCLUDE WIVES AND CHILDREN OF PEOPLE INJECTING DRUGS - HALT SHIFT TO INJECTING - INCLUDE YOUNG PEOPLE IN PROGRAMMING - INITIATE PROGRAMS IN JAIL - OFFER A WAY OUT OF DRUG USE

#### Acronyms

AIDS	Acquired Immune Deficiency Syndrome
GCWA	Global Coalition on Women and AIDS
HASP	HIV and AIDS Surveillance Project
HIV	Human Immunodeficiency Virus
LSHTM	London School of Hygiene and Tropical Medicine
NACP	National AIDS Control Program
NSEP	Needle Syringe Exchange Program
PACP	Punjab AIDS Control Program
RSA	Rapid Situation Assessment
RTI	Reproductive Tract Infection
STI	Sexually Transmitted Infections
UNAIDS	Joint United Nations Programme on HIV and AIDS
UNFPA	United Nations Population Fund
UNIFEM	United Nations Development Fund for Women
UNICEF	United Nations Children Fund
UNODC	United Nations Office for Drugs Control
VCCT	Voluntary Confidential Counselling and Testing



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