

PAKISTAN

AIDS Strategy III

2015-2021

(2017 Revision)

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Acronyms

AAU	ART Adherence Unit
AIDS	Acquired Immune Deficiency Syndrome
AEM	Asian Epidemic Model
APCOM	Asia Pacific Coalition on Male Sexual Health
APLHIV	Association of People Living with HIV
ART	Antiretroviral Therapy
ARV/s	Antiretroviral/s (medication)
CBO	Community-Based Organization
CCM	Country Coordination Mechanism
CD4	Cluster of Differentiation 4
CHBC	Community and Home-Based Care
DRAP	Drug Regulatory Authority of Pakistan
FSW	Female Sex Worker
GARPR	Global AIDS Response Progress Report
GF	Global Fund
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV	Human Immunodeficiency Virus
HSW	Hijra Sex Worker
HTC	HIV Testing and Counselling
IBBS	Integrated Biological and Behavioural Surveillance
IOM	International Organization for Migration
KP	Key Population
KPK	Khyber Pakhtunkhwa
M&E	Monitoring and Evaluation
MNCH	Maternal, Newborn and Child Health
MIS	Management Information System
MSM	Men who have Sex with Men
MSW	Male Sex Worker
MTR	Mid-Term Review
NACP	National AIDS Control Program
NGO	Non-Governmental Organization
NSEP	Needle Syringe Exchange Program
OST	Opiate Substitution Therapy
PACP/s	Provincial AIDS Control Programme/s
PAS III	Pakistan AIDS Strategy III
PC-1	Planning Commission Proforma – One (Project Document)
PLHA	People Living with HIV/AIDS
PLHIV	People Living with HIV
PPTCT	Prevention of Parent-to-Child Transmission
PR	Principal Recipient/s – GFATM
PrEP	Pre-Exposure Prophylaxis
PSE	Population Size Estimate
PSM	Procurement and Supply Management
PWID	People who Inject Drugs
QA	Quality Assurance
SDG	Sustainable Development Goals
SDP	Service Delivery Package
SOP	Standard Operating Procedure
SR	Sub-Recipients - GFATM
STI	Sexually Transmitted Infection

SW	Sex Worker
TB	Tuberculosis
TG	Transgender person
TWG	Technical Working Group
UN	United Nations
UNAIDS	United Nations Joint Program on HIV/AIDS
UNICEF	United Nations Children's Fund
UNODC	United Nations Office on Drugs and Crime
WHO	World Health Organization

1. Overview of Critical Issues Necessitating the Revision of PAS III

When PAS III was originally written in 2015 it was conceived as “a living document, whose intervention priorities, strategies to reach those priorities, and targets, will be updated as new strategic information becomes available.”¹ This document is the first of these anticipated revisions. This section explains the need for the revision, introduces the new strategic information on which it is based, and identifies a number of critical issues that the strategy revision needs to address.

1.1 Introduction - The Need for a Revision of PAS III

The main source of new strategic information that informs this revision is IBBS Round V and the subsequent epidemic modelling exercise that was conducted on the basis of this data. This round of surveillance re-mapped key populations in all four provinces in 2016 and then sampled from them accordingly to survey demographic characteristics, HIV prevalence, risk behaviour distribution, and exposure to interventions. A key innovation in IBBS V was the inclusion of men who have sex with men (MSM) as the larger population of which male sex workers (MSW) are a subset, and the inclusion of transgender (TG) as the larger population of which Hijra sex workers (HSW) are a subset. This is strategically significant because the larger MSM population contains the clients of the two smaller sex worker populations. The outputs of IBBS Round V were used in a new round of Asian Epidemic Modelling (AEM) to derive new population size estimates (PSEs) for key populations (KPs) and, on the basis of these estimates, to project the impact on the epidemic of different levels of investment in the response. The new targets for this revision of PAS III were selected based on this modelling.

In addition to this newly available domestic data, since the publication of PAS III there have been a number of developments in the international arena that this revision takes account of. The Global Fund to fight AIDS, Tuberculosis and Malaria (GFATM), the World Health Organisation (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS) have each issued new strategies² all of which are orientated towards the achievement of the Sustainable Development Goals (SDGs).³ These goals are contained in the 2030 Agenda for Sustainable Development adopted by the United Nations General Assembly in September 2015. Target 3.3 in this agenda is of particular relevance: “By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other communicable diseases.” Pakistan’s recently developed National Health Vision (2016-2025) envisages that the “new global sustainable

¹p8, PAS III, 2015

²Global Fund Strategy 2017-2022: Investing to End Epidemics, see <https://www.theglobalfund.org/en/strategy/> (accessed 02 April 2017), UNAIDS Strategy 2016-2021, On the Fast-Track to End AIDS, see http://www.unaids.org/en/resources/documents/2015/UNAIDS_PCB37_15-18 (accessed 02 April 2017), WHO Global Health Sector Strategy on HIV 2016-2021, see <http://www.who.int/hiv/strategy2016-2021/ghss-hiv/en/> (accessed 02 April 2017)

³United Nations General Assembly resolution 70/1 – Transforming our world: The 2030 Agenda for Sustainable Development, see: http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E (accessed 02 April 2017).

development agenda will be reflected in all health strategies and plans.”⁴

The key point made in the new global strategies is that the goal of ending AIDS by 2030 is dependent on the resource commitment made before 2020. This revision of PAS III, which has been extended by one year to 2021 so that it is better aligned with the new global strategies, covers the critical period during which the investment needs to be “front-loaded” and the response “fast-tracked” so that we can end the AIDS epidemic by 2030.⁵

Aside from the availability of critical new strategic information, and the issuance of new global AIDS strategies, a further driver for this revision of PAS III has been the expiry, at the end of 2016, of the four provincial strategies on which PAS III was based. A mid-term review of the provincial strategies had been conducted in 2014. Its recommendations were used to inform the development of the original version of PAS III, which was intended as a consolidation of the four provincial strategies. That review had proposed better alignment between the provincial strategies, and between the provincial and national strategies.⁶ The expiry of the provincial strategies and the need for PAS III to be revised in the light of new strategic information has created a critical opportunity to achieve the alignment proposed by the mid-term review.

1.2 Fast-Tracking the Response in the Context of a Concentrated Epidemic

UNAIDS has mapped out 10 fast track commitments to end AIDS by 2030,⁷ the first of which is the achievement of the ambitious 90-90-90 treatment targets by 2020. Modelling suggests that achieving these “90-90-90” targets by this deadline will “enable the world to end the AIDS epidemic by 2030.”⁸ The targets are as follows:

90% of all people living with HIV will know their HIV status.

90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy.

90% of all people receiving antiretroviral therapy will have viral suppression.

The targets apply sequentially across the cascade of services from testing through to treatment and treatment support. Achievement against the first “90” will determine the potential of a national AIDS programme to have impact because it determines the volume of people who can potentially be

⁴p16, **National Health Vision Pakistan, 2016-2025**

⁵ The concepts of front-loaded investments and fast-tracked responses are fully articulated in the UNAIDS strategy: UNAIDS, **Fast Track Commitments to End AIDS by 2030**, http://www.unaids.org/sites/default/files/media_asset/fast-track-commitments_en.pdf (accessed 04 April 2017.)

⁶p23, **Provincial AIDS Strategies Mid-Term Review**, January 2015

⁷ See P2-3, UNAIDS, **Fast Track Commitments to End AIDS by 2030**, http://www.unaids.org/sites/default/files/media_asset/fast-track-commitments_en.pdf (accessed 04 April 2017.)

⁸p2, **UNAIDS, 90-90-90**, see <http://www.unaids.org/en/resources/documents/2014/90-90-90> (accessed 02 April 2017.)

placed on treatment.⁹This gives testing programme coverage a critical role in determining the overall impact of the programme.

Pakistan's epidemic remains concentrated among key populations and there is evidence that the shift from transmission via needle sharing for injecting drug use, to sexual transmission among those that buy or sell sex, and onwards to their other intimate partners, is accelerating. Historically Pakistan's AIDS programme has struggled to achieve optimal coverage of prevention, testing and treatment programmes among key populations.¹⁰To gain control of the HIV epidemic the country needs to make "strategic investments in the right people in the right places."¹¹ Herein lies the strategic value of the new information from IBBS Round V and the AEM modelling based on it. This strategy revision is primarily about using that data to bring about the precision targeting needed to boost coverage to the levels necessary to change the course of the epidemic.

To achieve the required level of impact on the epidemic this reorientation of PAS III accommodates four main strategic adjustments proposed in the new global strategies and guidance as follows:

- i. The need for precision targeting
- ii. The need for a more strategic approach to testing and treatment
- iii. The need to invest more effectively
- iv. The need to innovate

A brief overview of these four adjustments is given below. More details can be found in subsequent sections of the strategy revision.

i. Precision Targeting

Precision targeting entails a "re-animation and innovation" of HIV prevention "for and with key populations, with a focus on urban areas."¹² The new strategic information from IBBS and AEM will be critical for guiding this targeting. This includes the use of this data to understand the "gender and age dimensions"¹³ of the epidemic and adjusting the response accordingly. An important aspect of precision targeting is the prioritisation of cities for interventions for particular key populations. UNAIDS has already identified Faisalabad, Karachi and Lahore as being among 30 cities in the Asia Pacific region that account for more than a quarter of the region's epidemic.¹⁴ The new city mapping data from IBBS Round V enables the prioritisation of particular cities for particular key populations.

⁹ A programme which achieved the second two "90" targets but which fell significantly short on the first "90" would be unlikely to be treating enough people to achieve the prevention benefit of treatment.

¹⁰ An analysis of current transmission trends and coverage levels is presented in the next chapter.

¹¹ p23, *Global Fund Strategy 2017-2022: Investing to End Epidemics*, see <https://www.theglobalfund.org/en/strategy/> (accessed 02 April 2017)

¹² p91, *UNAIDS Strategy 2016-2021, On the Fast-Track to End AIDS*, see http://www.unaids.org/en/resources/documents/2015/UNAIDS_PCB37_15-18 (accessed 02 April 2017)

¹³ p23, *Global Fund Strategy 2017-2022: Investing to End Epidemics*, see <https://www.theglobalfund.org/en/strategy/> (accessed 02 April 2017),

¹⁴ p91, *UNAIDS Strategy 2016-2021, On the Fast-Track to End AIDS*

ii. Strategic Testing and Treatment

Being more strategic about testing and treatment depends on the precision targeting just discussed, but also requires an adjustment in the approach to service delivery. For testing this means shifting testing from clinic settings to community settings and actively involving community members in service delivery.¹⁵ This is necessary to boost the coverage rates of testing services among key populations. The task shifting entailed also has cost effectiveness implications (see section iii. below.) For treatment the critical adjustment is from treatment narrowly defined as morbidity and mortality management to a more holistic conception that fully embraces treatment as prevention. This will entail treatment for all regardless of CD4 count,¹⁶ an expansion of community-based treatment preparedness and adherence support, and a concerted effort to eliminate new infections among children by 2020.¹⁷ It will also entail consideration of the use of PrEP (see section iv. below.)

iii. Effective Investment

Investing effectively requires the abovementioned front-loading of the investment into the period up to 2020 in order to dramatically boost coverage levels. But it also requires achieving efficiency gains. UNAIDS notes that “countries with concentrated epidemics will realize the greatest efficiency gains by shifting resources towards key populations.”¹⁸ This is covered under points i and ii above. Efficiencies are also to be gained by shifting delivery into community based and community led models. The seventh of UNAIDS’ ten Fast-Track Commitments is to “ensure that at least 30% of all service delivery is community-led by 2020.”¹⁹

iv. Innovation

Evolving the approach to treatment into “treatment as prevention” requires consideration of pre-exposure prophylaxis (PrEP) as “an additional, powerful HIV prevention tool for individuals who are at high risk of HIV acquisition”.²⁰ The new WHO Global Health Sector strategy on HIV states that the “game-changing potential PrEP has been confirmed.”²¹ UNAIDS includes PrEP as part of the “combination prevention options” in the third Fast Track Commitment to boost prevention coverage to 90% of key populations (in a concentrated epidemic) by 2020.²² Given the current growth rate in HIV transmission among male and Hijra sex workers and their clients, and the new estimates on the size of the MSM population in Pakistan, the revised strategy proposes a pilot PrEP project as a key innovation to address the problem of burgeoning sexual transmission.

¹⁵*ibid.*

¹⁶*ibid.*

¹⁷ The elimination of partner to child transmission is the second of UNAIDS ten fast track commitments to end AIDS by 2030. See P2, UNAIDS, [Fast Track Commitments to End AIDS by 2030](http://www.unaids.org/sites/default/files/media_asset/fast-track-commitments_en.pdf), http://www.unaids.org/sites/default/files/media_asset/fast-track-commitments_en.pdf (accessed 04 April 2017.)

¹⁸p71, UNAIDS Strategy 2016-2021, On the Fast-Track to End AIDS

¹⁹p3, UNAIDS, [Fast Track Commitments to End AIDS by 2030](http://www.unaids.org/sites/default/files/media_asset/fast-track-commitments_en.pdf)

²⁰p33, WHO Global Health Sector Strategy on HIV 2016-2021

²¹p14, *ibid.*

²²p2, UNAIDS, [Fast Track Commitments to End AIDS by 2030](http://www.unaids.org/sites/default/files/media_asset/fast-track-commitments_en.pdf)

1.3 Addressing Critical Issues

The key strategic challenge for Pakistan's AIDS programme is to shift from a position where there is relatively limited control of a concentrated epidemic to a position where ending AIDS by 2030 is achievable. Gaining control of the epidemic requires proportional prevention programme coverage of individuals within the key populations where the epidemic is concentrated, equipping them to reduce their risk of transmission, identifying those that are HIV positive and putting them on treatment, and supporting those on treatment to adhere to it.

The required targeted scale up can only be accomplished if a number of critical issues are addressed prior to 2021. These critical issues act to constrain the intake and retention of individuals from key populations who are living with HIV into the service cascade. Addressing them will increase the flow of people from affected communities through the testing gateway and on into treatment, care and support.

This section maps these critical "flow-constraining" issues against the 90-90-90 targets and illustrates how some of the strategic adjustments from the previous section will be brought to bear on resolving them.

90% of people living with HIV knowing their HIV status:

Critical Issue 1: Low prevention and testing programme coverage among key populations.

Strategic Adjustment: This is a cascade intake constraint. Because it determines the volume of people entering the service cascade it has critical implications for overall programme coverage and impact. Solving it requires a proactive and precision-targeted approach to reaching members of key populations. The main shift required is to take testing to the targeted community, scale it up in cities known to have high volumes of particular key populations, and deliver it in a manner that facilitates uptake (non-discriminatory, non-judgemental, non-stigmatising.)

In order to achieve this the revised strategy proposes a ramped up investment in community-based HIV Testing and Counselling (HTC) delivered *in* community settings and *by* community members and the CBOs serving them. Cities are prioritised for this investment in accordance with the distribution of key populations. Service delivery models will be tailored to the community settings particular to each key population. Where possible, testing services are to be integrated into existing community led/based prevention programmes that address behavioural risk. Protocols for testing and confirmation will be reviewed so that testing at the community interface and at the clinic are complimentary rather than duplicative. Coverage will be inclusive of partners and spouses, as appropriate, with a particular focus on the early identification of pregnant

partners and spouses.²³Pakistan's new strategic framework for the prevention of parent to child transmission of HIV (PPTCT) recommends targeted "demand generation" in key populations with PWID and their spouses as a first priority.²⁴

90% of people with diagnosed HIV infection receiving sustained antiretroviral therapy:

Critical Issue 2: The continued existence of barriers to treatment access and initiation.
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During the consultations with key populations and other stakeholders that were conducted for the development of this revised version of PAS III a number of issues were identified that make treatment access problematic for individuals from these populations. These issues are not new but they remain largely unresolved.²⁵ There are three main types of constraint; a treatment preparedness constraint, a treatment eligibility constraint, and a number of treatment service delivery constraints.

Treatment Preparedness Constraint: This issue applies to HIV positive PWID who are actively using opioids. There is a demand side and a supply side aspect to the problem. The supply side concerns the reluctance on the part of physicians to treat individuals who are perceived to have a high risk of non-adherence.²⁶ The default response to this tends to be to require the patient to undergo detoxification prior to treatment initiation.²⁷ In some cases treatment is additionally restricted to those that are accompanied and supported by a family member. The demand side aspect to this constraint concerns the low priority that HIV positive PWID who are actively using opioids attach to treatment access. Their primary concerns are with their addiction - either satisfying it or curing themselves of it. For this reason the demand for rehabilitation support outweighs the demand for ART access.²⁸

Eligibility Constraint: This is the CD4 eligibility requirement – treatment is currently only available to patients with a CD4 count of 500 or below. Previous analysis has shown that individuals who test positive but do not yet meet the CD4 eligibility criteria are high risk for being lost to follow up.²⁹ There are currently four exceptions to this eligibility requirement: for children

²³ Current (2016) treatment coverage for HIV positive pregnant women is estimated at 5.3%. A new strategic framework has been developed for prevention of parent to child transmission (PPTCT) of HIV in Pakistan and recommends scaling up PPTCT services "to particularly reach and provide services to key populations, the most marginalized groups and those affected by HIV/AIDS." See p15, **Strategic Framework for PPTCT of HIV in Pakistan**, UNICEF, December 2016.

²⁴ *Ibid.* p16.

²⁵ A full analysis of barriers to treatment access can be found in **Findings Report, Test-Treat-Retain Cascade Analysis**, Punjab Province, 2014, see pp 19-30.

²⁶ The concern is about the potential for the emergence of drug-resistant strains of HIV. See for example, http://www.who.int/substance_abuse/publications/opioid_dependence_guidelines.pdf, p20.

²⁷ Detoxification is not a *formal* requirement for treatment access: the country has previously revised treatment guidelines to allow for the treatment of active opioid users. Despite this it remains standard practice. Clinicians express strong concerns that treating active opioid users results in non-adherence which could lead to the emergence of drug-resistant strains.

²⁸ In this regard there is a consensus between the clinicians and those involved in delivering outreach prevention programmes to PWID that a degree of lifestyle stabilisation support is a prerequisite for treatment initiation among PWID. For the clinicians it is to improve treatment outcomes, for community outreach workers it is about generating interest in and demand for treatment.

²⁹ p24-25, **Findings Report, Test-Treat-Retain Cascade Analysis**, Punjab Province, 2014.

under 5, for pregnant women, for sero-discordant couples and for people with TB. A strategy for a phased introduction of treatment for all, in line with new global guidance from the WHO,³⁰ is currently under development.

Treatment Service Delivery Constraints: There are a number of supply-side issues that continue to restrict access to treatment. Chief among these are the travel distances to treatment centres, the restricted opening hours, the complexity of registration and baseline testing procedures which can require multiple visits and/or visits to other facilities, judgemental and discriminatory attitudes among health care workers in treatment centres, and weak confidentiality procedures.

Strategic Adjustments: Together these issues significantly constrain the onward flow of people who test HIV positive into treatment. Increasing the portion of those who test positive who also initiate treatment requires that these barriers be removed.

1. **Addressing Barriers to ART Initiation (PWID):** The critical issue here is the limited availability of quality treatment preparedness support services for PWID. In the absence of OST, there is a tendency to reduce treatment preparedness support for PWID to detoxification. This significantly constrains the flow of PWID into treatment. Whilst OST would clearly be a game-changer in terms of addressing this conundrum,³¹ it remains highly unlikely that it will be implemented on anything like the required scale within the timeframe of this strategy due to strong opposition from the Ministry of Narcotics.³² This means the country has to commit to the delivery of alternative treatment preparedness support services for PWID inclusive of expanding their conceptualisation beyond detoxification, increasing their coverage, and recognising that this is an intensive human support process that requires an investment. The key strategic shift is from exclusions and restrictions to the proactive facilitation of inclusion. This requires acknowledgement that for this population there is a need to concurrently manage drug dependence alongside HIV treatment.³³
2. **Addressing Barriers to ART Initiation (all key populations, including intimate partners and spouses³⁴):** Removing the current CD4 eligibility criteria and adopting the treatment for all approach recommended by WHO³⁵ will address the significant cascade leakage that is

³⁰ p74, 4.3, **Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infections**, WHO, 2016.

³¹ A systematic review and meta analysis of evidence of the effect of OST on ART outcomes among PWID living with HIV found strong evidence that OST increased recruitment onto ART by 87%. See **"Impact of Opioid Substitution Therapy on Antiretroviral Therapy Outcomes: A Systematic review and Meta-Analysis"**, AJ Low et al., Clin Infect Dis (2016) 63 (8): 1094-1104. June 2016.

³² This issue is discussed further in section 5 under output strategy 2.1.2.

³³ The cascade analysis that was conducted in Punjab noted that "of all of the areas for action and improvement, devising and rolling-out a collaborative, fully integrated approach to managing drug dependence as well as HIV-infection is clearly the most urgent need", see p36, **Findings Report, Test-Treat-Retain Cascade Analysis**, Punjab Province, 2014.

³⁴ The barriers of "cost and distance travel" have also been highlighted with respect to women's access to PPTCT services. See p16, **Strategic Framework for PPTCT of HIV in Pakistan**, UNICEF, December 2016.

³⁵ The recommendation is that "ART should be initiated in all adults living with HIV, regardless of clinical stage and at any CD4 cell count (strong recommendation, moderate-quality evidence)." See **Consolidated Guidelines on the Use of Antiretroviral Drugs for treating and Preventing HIV Infection**, 2016, p74

currently occurring between testing/registration and treatment initiation. It effectively removes the need for an indefinite waiting period during which weak pre-ART care has resulted in loss to follow up.³⁶ However, the full benefit of removing the eligibility barrier that currently stands between test and treat is unlikely to be realised unless the other outstanding barriers are addressed in tandem. Chief among these is the distance barrier. Developing new ways to bring treatment closer to the people that need it will be critical to resolving this issue. Additionally, streamlining treatment registration procedures, introducing a greater flexibility in clinic opening times, addressing clinic staff attitudes towards working with key populations and improving adherence to confidentiality procedures will all be needed to improve treatment uptake.

90% of people on treatment having suppressed viral loads:

Critical Issue 3: High treatment attrition rates, especially among PWID.

Strategic Adjustment: This is a constraint on retention within the service cascade. Unless retention rates are improved viral load suppression will not be achieved for a significant portion of those who initiate treatment. Some evidence suggests that attrition rates are higher for PWID who initiate treatment than for other populations.³⁷ Given the concentration of the epidemic among this population addressing their attrition rate would have a substantial impact on overall programme performance with regard to viral load suppression. As with treatment initiation rates for PWID (see above), the introduction of OST would be a potential game changer for addressing this problem.³⁸ For as long as this remains politically unobtainable there is an urgent need for a tailored and intensified treatment adherence support model particular to PWID. This will entail clinic-to-community-and-back-again case management with the active involvement of community-based case managers and strong communication links between these community workers and clinic staff. It will need to be delivered at scale and targeted towards cities with higher numbers of PWID living with HIV.

Key Points

The above analysis identifies the critical issues that Pakistan's AIDS programme has to address if it is to gain control of its HIV epidemic. It requires a stronger focus on reaching key populations

³⁶ pp24-25, **Findings Report, Test-Treat-Retain Cascade Analysis**, Punjab Province, 2014.

³⁷ The only longitudinal study conducted in Pakistan that tracked treatment drop out rates (between 2008 and 2012) found that after five years 59.25% of PWID on ARVs were lost to follow up compared with 2.46% for non PWID. See Daud et al, "**Anti-retroviral drugs compliance in intravenous and non intravenous drug abusers**", J Ayub Med Coll Abbottabad 2014;26 (4), <http://www.ayubmed.edu.pk/JAMC/26-4/Yousuf.pdf> (accessed 13th April 2017.) This study was conducted prior to the implementation of adherence support programmes for PWID which have shown higher rates of short-term ART adherence (within 7-19 months of treatment initiation) among PWID using adherence support services than those not using them (77.4% versus 51.1%), see "**ART Adherence Unit, An Independent Evaluation Report**" April 2016, Nai Zindagi, http://media.wix.com/ugd/c0eb6b_b384bc97d4244bf3a05ffb346371bc76.pdf (accessed 13th April 2017.)

³⁸ There is strong evidence that OST increases "ART adherence 2-fold, viral suppression by 45%, and reduces ART discontinuation by 23%." See "**Impact of Opioid Substitution Therapy on Antiretroviral Therapy Outcomes: A Systematic review and Meta-Analysis**", AJ Low et al., Clin Infect Dis (2016) 63 (8): 1094-1104. June 2016.

for whom infection occurs primarily through sexual transmission. It entails the strategic targeting of prevention and testing services towards cities with higher proportions of key populations living with HIV. It requires shifting testing services into community settings and task-shifting testing service delivery to community workers. It entails a tailoring of service delivery models, particularly around treatment preparedness and treatment adherence support, to address the particular needs of people living with HIV who are drug dependent. And it requires a modification of the treatment delivery model that brings treatment closer to those that need it and removes the institutional and attitudinal barriers that make a visit to the clinic so problematic for members of key populations.

The above listed critical issues all serve to limit the impact of the national AIDS programme. One further critical issue serves to limit the programmes' ability to track its progress towards improving its impact:

Critical Issue 4: Weak monitoring and evaluation system

Strategic Adjustment: This constrains the programmes' ability to track individual patients as they move across the components of the service cascade and measure outcomes. It is not a new issue and there have been some improvements in the last year. The adjustments that are proposed above in order to boost programme coverage will necessitate further developments in the monitoring and evaluation system to improve cascade monitoring. In particular it will require the following:

- 1. Monitoring of community-based testing coverage:** the current system only tracks the testing that is done when people register at treatment centres. With the bulk of testing moving into community settings the purview of the monitoring and evaluation system needs to be extended into those settings. This is to enable it to measure and track the number of individuals from each key population getting tested, the proportion of those getting tested who test positive, and the portion of those testing positive who make it through to treatment. Pre-clinic-attendance testing programme monitoring is a critical new piece for the country's monitoring and evaluation system.
- 2. Adherence monitoring:** the new emphasis on adherence support will require a system that allows for easy analysis of differing adherence and loss to follow up rates among PLHA from different key populations. It will also require case management systems that link up community based adherence support with clinical case management.
- 3. Viral load monitoring:** at present there is very limited data available about viral suppression. This will need to be addressed if the treatment programme is to be able to assess its impact.

From the current system at national level it is not possible to build a comprehensive “live” model of cascade coverage i.e. of the number of individuals from each key population getting tested each year, the portion of these testing positive, the portion of those testing positive initiating treatment, and the portion of those initiating treatment achieving viral suppression. It will be a key part of the approach of the revised version of PAS III to achieve this critical piece of monitoring capacity by 2020.

2. Analysis of New Strategic Information

2.1 Introduction

This section of the strategy revision analyses the new³⁹ strategic information that has become available since the publication of PAS III and outlines the broader implications for the strategic approach. For an overview of the general country context readers are referred back to the original version of PAS III. The primary source of new strategic information for this strategy revision is the 5th round of HIV surveillance that was conducted in 2015-2017. This round comprised of a mapping of key populations followed by an integrated behavioural and biological survey (IBBS) based on a sampling of those same populations. Key outputs from Round V IBBS were new HIV prevalence estimates for each key population, city-level key population size estimates, and summary demographic, behavioural, and programme exposure data.

Data sourced from IBBS Round V was used in a new round of Asian Epidemic Modelling (AEM) conducted in early 2017. The outputs of this modelling exercise included new population size estimates for each key population, scenarios of how the HIV epidemic in Pakistan might be expected to progress given different levels of resourcing, and costs and targets for each scenario. The IBBS data was also inputted into the Spectrum software tool to produce population size estimates for people living with HIV. The treatment coverage data referenced in this section is from the National AIDS Control Programme's MIS.

Before we embark on the analysis a few words need to be said concerning the ambitions and limitations of Round V IBBS data:

- Round V attempted to include the broader populations of transgender (TG) and men who have sex with men (MSM). Previous rounds have limited themselves to only looking at individuals within these populations who are engaged in commercial sex work. The intention was to map these larger “parent” populations and determine their HIV prevalence levels and the distribution of risk behaviours among them. Consequently, for the first time the country has HIV prevalence estimates for TG and MSM who are not engaged in sex work. The mapping data was then used by AEM to derive estimates for the larger MSM and TG population sizes.
- Despite the abovementioned attempt, the result was not very successful. For example, by far the majority of MSM surveyed (85%) were male sex workers. An even higher percentage of transgender surveyed (88.8%) were hijra sex workers. Conclusions drawn from this data set need to be mindful of this.

³⁹ By “new” we mean information that has become available since the publication of PAS III in 2015. Data sources that were referenced in the original version of the strategy are not revisited except for the purposes of identifying trend.

- Historically Pakistan's IBBS reports have given weighted results at national level for prevalence data only, and Round V has continued this practice. All data on demographics, behaviour and programme exposure is only given in un-weighted form. For this reason national level trend comparison between rounds, for anything other than HIV prevalence, is not possible. For example, different rounds are covering different cities for different key populations with different age inclusion criteria. If no adjustment is made to allow for these variables then summary statistics at national level should be considered incomparable.
- Whilst the number of cities included in the Round V sample for TG/HSW, MSM/MSW and FSW increased, the number of cities covered for PWID decreased significantly from 19 to 14. For both PWID and FSW a number of large cities with significant populations and epidemic burden, such as Lahore, Multan, Faisalabad and Sargodha were not covered in Round V. For PWID only four cities in Punjab, the province estimated to have the largest proportion of PLHA (50%), were sampled. AEM modelling adjusted for this by extrapolating data on missing cities from previous rounds of IBBS but the data in the IBBS Round V report makes no such adjustment. Given that the epidemic is largely concentrated in the two provinces of Punjab and Sindh (see analysis below,) and that PWID have the highest prevalence rate and estimated number of PLHA, this is a significant shortcoming.
- Round V adjusts the age inclusion eligibility criteria down to 13 for all key populations. In the previous round the cut off was 18 for PWID, 15 for HSW and FSW and 13 for MSW.

2.2 Population Size Estimates and HIV Prevalence among Key Populations

A comparison of the population size estimates and prevalence rates given in the original version of PAS III and the new estimates based on IBBS Round V and AEM is as follows:

	Original Estimate			Revised Estimate		
	PSE	HIV Prevalence	PLHA	PSE	HIV Prevalence	PLHA
PWID	104,804	37.8%	39,616	113,422	38.4%	43,554
TG	66,161 ⁴⁰ – 150,000 ⁴¹			52,424	7.1%	3,722
MSM	150,000 ⁴² – 2,285,500 ⁴³			832,213	3.5% ⁴⁴	29,127
FSW	149,111	0.6%	895	173,447	2.2%	3,816

⁴⁰ Based on 2014 Spectrum estimates.

⁴¹ Based on AEM assumption of 0.3% of 2015 estimate of adult males 15-49

⁴² Also based on AEM assumption of 0.3% of 2015 estimate of adult males 15-49

⁴³ Estimate from **Pakistan Country Snapshot – HIV and Men who have sex with Men**, December 2010, APCOM/UNAIDS/UNDP, which is based on Cáceres C, et al. **Estimating the number of men who have sex with men in low and middle income countries.** *Sex Transm Infect* 2006;**82**:iii3-iii9.

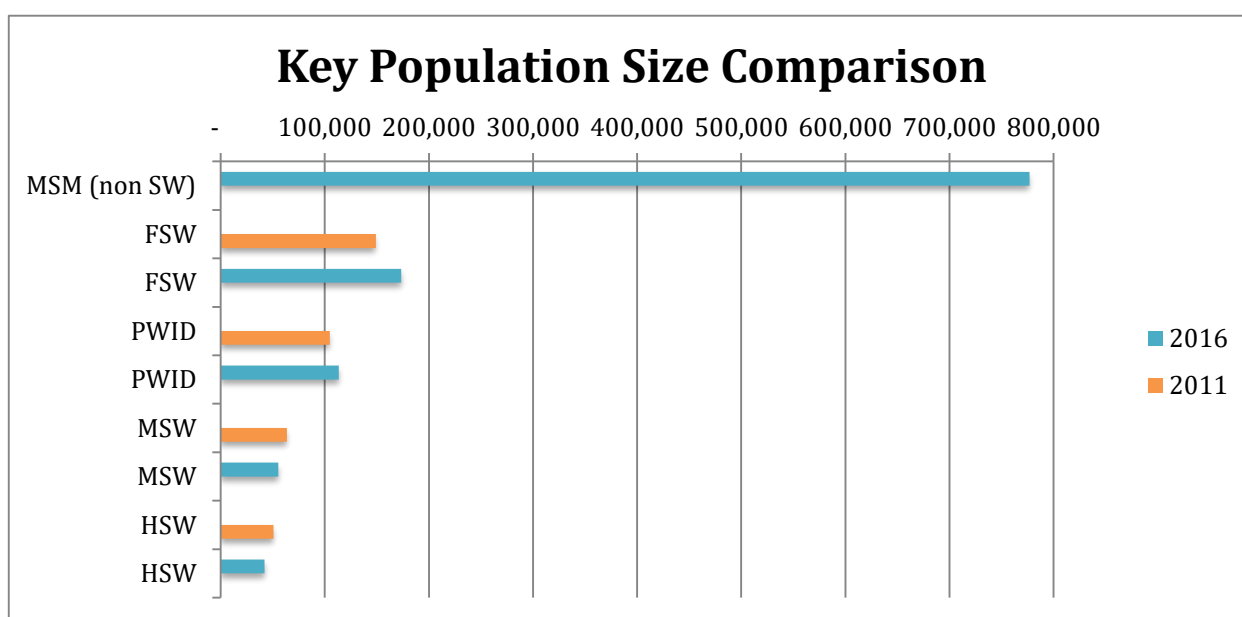
⁴⁴ The version of the IBBS Round V Report used to draw up this strategy (Final Draft May 6th) gives the overall MSM prevalence rate as 5.4%. (see page 123.) However this figure clearly takes no account of the fact that MSW made up 85% of the survey sample even though they are estimated to be only 7% of the overall MSM population. The 3.5% figure has been derived by summing the number of MSW and non SW MSM PLHA derived from their respective prevalence estimates and expressing this number as a percentage of the overall MSM population size estimate.

For the MSM and TG populations there are further PSEs and prevalence rates for sub-populations as follows:

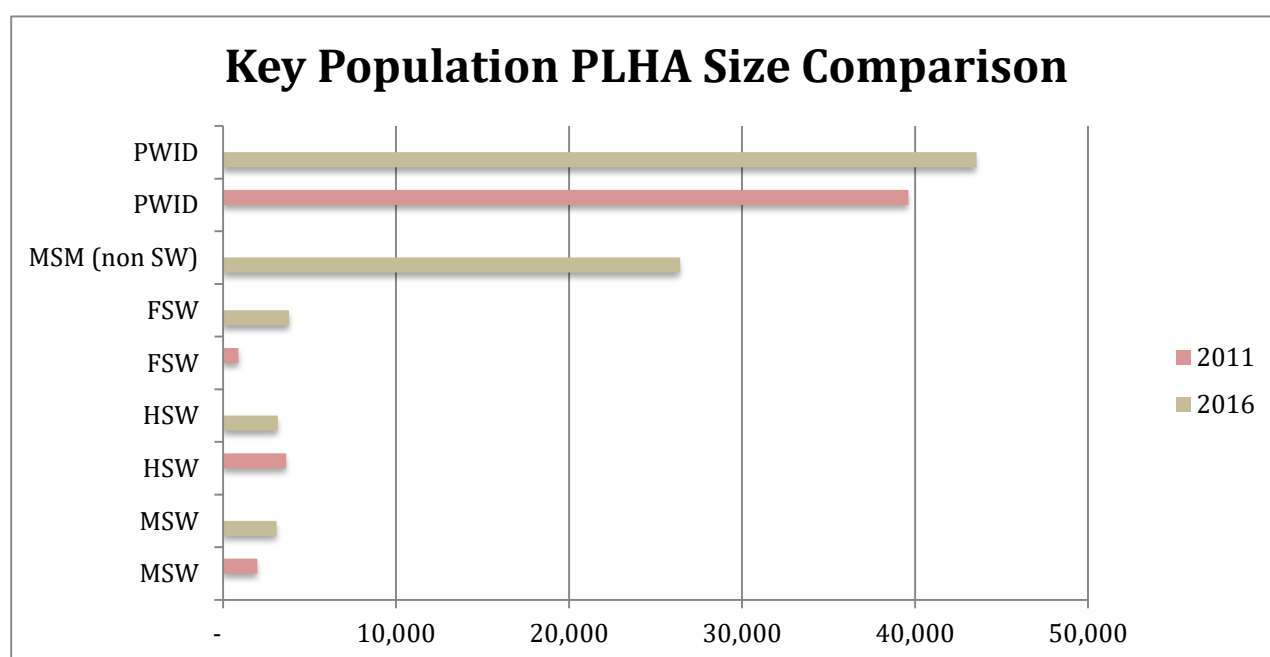
	Original Estimate			Revised Estimate		
	PSE	HIV Prevalence	PLHA	PSE	HIV Prevalence	PLHA
HSW	50,598	7.2%	3,643	42,190	7.5%	3,164
Non SW MSM				776,873	3.4%	26,414
MSW	63,732	3.1%	1,976	55,340	5.6%	3,099

The most notable points of difference between the successive rounds of population size and prevalence estimates with strategic implications are as follows:

- Originally PAS III gave two very different estimates for the size of the larger MSM population; one based on an estimate from the former round of AEM, the other based on a reference from APCOM. Neither was linked to IBBS Round IV. The new AEM estimate is based on a different rationale, which is explained in section 2.3 below. The key point to note is that according to the new estimates MSM are the single largest key population group.



- The implications of this for the strategy are significant because it means that overall MSM (both sex worker and non sex worker) account for 22% of people currently living with HIV in Pakistan. This makes MSM the second largest group of PLHA after PWID, with more than seven times the number of PLHA than either FSW or HSW.



- The 2017 estimates suggest a smaller number of MSWs and HSWs than originally estimated; this may be due to the fact that the more recent round opened up to include non-sex worker MSM and non sex worker TG⁴⁵. The MSW PSE has dropped by 17%, the HSW PSE by 13%. This has meant that for HSW, even though the HIV prevalence has slightly increased the estimated number of HSW PLHA has dropped from 3,643 to 3,164.
- Because the FSW PSE has increased by 16% and HSW PSE decreased by 17% FSWs now account for slightly more estimated PLHA than HSW. This is a consequence both of the increase in FSW population size estimate and the relatively faster rate of increase in prevalence (267% prevalence growth versus 4%.)

So what does this imply as far as ambitious fast-track coverage objectives are concerned? Firstly, the most appropriate way to prioritise the key population groups with respect to optimal treatment coverage objectives will be in terms of the estimated numbers of PLHA in each group. This would mean (a) that PWID should remain the priority key population and (b) that MSM programming needs to be urgently scaled up with concerted ambition to increase its scope beyond the more limited focus on MSW.

On the first point, PWID still account for the majority of people living with HIV in Pakistan. Their HIV prevalence rate is by far the largest of any group in Pakistan and is still growing even if now at a lower rate (2%) than other key population groups. In terms of actual numbers of PLHA, the PWID

⁴⁵ i.e. either non sex worker MSM/TG being wrongly classified as MSW/HSW in the original round or MSW/HSW being wrongly classified as non sex worker MSM/TG in the most recent round.

epidemic is still contributing the largest amount of new cases.⁴⁶ The epidemic will not be properly controlled unless the testing and treatment coverage rates for this group are significantly improved.

The second point is particularly important given that the HIV prevalence among MSW between the two rounds has increased by 81%. This suggests a rapidly growing epidemic. The men purchasing the services of MSW will, by definition, belong to the larger population of MSM who are therefore exposed to this higher prevalence rate. The MSM population will also include men who purchase the services of Hijra sex workers (HSW) whose HIV prevalence has grown 4% since Round IV IBBS. HSW have the second highest HIV prevalence after PWID at 7.5%. Given that MSM are estimated to be by far the largest of the key population groups, increases in their prevalence rate will translate into much larger numbers of PLHA.

Thirdly, it would suggest that now is the time to increase the investment in programming for FSW.⁴⁷ Although the prevalence rate among this group is the lowest of all key populations, its large rate of growth (up by 267%,) and the relative size of this population group (the second largest key population after MSM), could result in significant numbers of FSW living with HIV.

2.3 The New MSM Population Size Estimate

It is worth saying a few words about MSM and how the new population size estimate was arrived at. It should be noted that this is the first time the country has a prevalence estimate for the larger group of MSM based on the results of IBBS mapping. This figure will now serve as a baseline for future rounds of IBBS.

The IBBS mapping covered two types of MSM; those that sell sex and those that do not. However, the IBBS survey found it difficult to recruit non-sex worker MSM into the sample. Of 6,773 MSM interviewed in 22 cities 85% were sex workers.⁴⁸ Thus the prevalence estimates for MSW and non-SW MSM are based on a sample that was highly skewed towards the smaller sub-population of male sex workers. The only point of comparison we have for the relative prevalence estimates of sex worker and non-sex worker MSM is from the programmatic data of the Global Fund regional MSM grant. In 2016 the Dostana CBO in Lahore tested 1,505 MSW and 600 non-SW MSM. Of those tested 5.3% of MSW and 3.5% of non-SW MSM tested positive.⁴⁹ These rates are comparable to the IBBS results of 5.6% and 3.4% respectively, which gives us some degree of confidence in the relative prevalence rates for the two groups.

The AEM modelling exercise used the data from the IBBS mapping process to come up with a PSE for the larger population of MSM. This estimate assumed 3 types of MSM; those that sell sex to

⁴⁶ The number of PWID PLHA has increased by 3,938 between the two rounds, compared to 2,921 for FSW and 1,123 for MSW. Note though that there is no comparable figure for MSM because this population was not included in previous rounds.

⁴⁷ Strictly speaking there has been no investment in FSW programming recently. Although there are budgets for programming for this population in the provincial PC 1s implementation of these programmes have been on hold for at least a year (Punjab) and in other provinces longer. This may be one reason for the significant increase in prevalence.

⁴⁸ p121, IBBS 2016-17, Pakistan, draft 6th May 2017.

⁴⁹ Data supplied by Tanzil ur Rehman, Programme Manager, Dostana Male Health Society, 20th April 2017.

men, those that purchase sex from men, and a third group of men who engage in non-commercial sex with other men. The PSE for men that sell sex to men could be confidently estimated on the basis of the data from the IBBS mapping exercise. The size of the client population was estimated based on questions asked in the IBBS survey about the frequencies of reported buying and selling of sex, and the numbers of clients per given period. The size estimate of the group of men engaging in non-commercial sex with other men was based on questions asked in the IBBS survey about the number of non-paying male sex partners in the last month (asked of both MSW and non-SW MSM). Of the total final estimate of 832,213 MSM, 7% are MSW ($n = 55,340$), 69% are clients of MSW ($n=578,010$), and 24% are men who engage in non-commercial sex with other men ($n=198,863$). On this basis there are around 10 clients for every male sex worker.

Confidence in these estimates should be tempered by the fact that they are heavily based on a survey of men who were predominantly engaged in sex work. This would suggest that we can likely be more confident in the estimates of the sizes of sub-populations closer to this group i.e. the sex workers themselves and their clients. By far the weaker of the sub-population size estimates is that concerning men who engage in non-commercial sex with other men. It is possible that this group of “hidden” MSM is not closely connected with those surveyed and therefore using the reported frequencies (of unpaid sex partners) of those sampled to derive the PSE for this group is potentially flawed.⁵⁰ All that can be said at this point is that there is a need for more research into men who engage in non-commercial sex with other men and improved sampling of this group in future rounds of IBBS. This is important because it represents a potential blind spot for the response with regard to a population for whom prevalence rates are clearly rising.⁵¹

A final point to be made with respect to this population is a need for more clarity and consensus about what “MSM” means. In the course of consultations conducted for developing this strategy revision it was clear that different stakeholders were operating with different concepts. MSM is an epidemiological term intended as a behavioural descriptor rather than an identity concept. It does not entail membership of a sub-culture, and it does not assume that an individual self-identifies as gay, homosexual or bisexual.⁵² An MSM is, by definition, any man who engages in sex with another man, regardless of how he describes his own sexual orientation. Comments such as “the clients of MSW are not MSM; they come from the general population” heard during country dialogue indicate that this may not be well understood.

⁵⁰ To give an example, this estimate was extrapolated on the basis of an assumption that non-paying partners were likely to be steady partners, which may well be true in relation to MSW. But it is another question entirely as to whether the MSW rates of having non-paying sex partners can be applied to the group of men who *only* engage in non-commercial sex with each other.

⁵¹ Anecdotal accounts from programmatic experience suggest that to the extent that such behaviour does take place it is highly covert and many men in this group are married. This suggests a significant potential for onward transmission to spouses.

⁵² In fact the term was coined largely in recognition of the fact that globally most men who engage in sex with other men do not so identify. See, for example, **UNAIDS Policy Brief, HIV and Sex Between Men**, https://web.archive.org/web/20130621123530/http://www.unaids.org/en/media/unaids/contentassets/dataimport/pub/briefingnote/2006/20060801_policy_brief_msm_en.pdf, retrieved 22nd April 2017.

2.4 Behavioural Risk Factors and Prevention Programme Coverage

As discussed above, the following national level data is non-weighted and needs to be treated with some caution.

For risk behaviours the IBBS Round V results show 72.5%⁵³ of PWID reporting the use of sterile injecting equipment the last time they injected. The highest rates of condom use were among female sex workers with 50.5%⁵⁴ reporting use of a condom with their last paid client. The lowest rates of condom use were among non-SW MSM with 13.2%⁵⁵ reporting use of a condom with their last sex partner. The rates for MSW and HSW were 26.4%⁵⁶ and 27.7%⁵⁷ respectively. This may reflect the fact that prevention programming for PWID has been stronger in Pakistan than prevention programmes targeting sexual transmission. The low rates of condom use among the key populations where sexual transmission predominates are of particular concern.

For exposure to prevention programmes the AEM model derived baselines from the IBBS data based on exposure to a minimum of 2 programme components. For PWID these components were needle exchange and HIV testing. For the other key populations these components were condom distribution and HIV testing. Exposure rates to these minimum packages for each key population were as follows:

KP	Reached with Minimum Prevention Package in Last 12 Months
PWID	17.6%
HSW	16.6%
MSW	14.9%
FSW	7.9%
Non-SW MSM	3.5%

These rates do reflect to some extent what we know about existing programme implementation; that programmes for PWID are, relatively, stronger, and that programmes for FSW and non-SW MSM in particular lack any meaningful scale in relation to the target population size and relative epidemic burden.⁵⁸ Coverage rates are predictably smaller among the larger key population groups. Clearly these coverage rates fall far short of the ambitious targets proposed in the global guidance discussed in the previous chapter.

As far as trend is concerned the most we can do is make selected comparisons at city level given the different sampling approaches of different rounds of IBBS. For example, if we look at selected

⁵³ This figure does not appear in the IBBS Round V report, it was provided by the team from University of Manitoba who are leading the IBBS process. It is an extrapolation based on responses to a couple of variables covered in the survey.

⁵⁴ P109, IBBS Round V, 6th May Final Draft

⁵⁵ p134, IBBS Round V, 6th May Final Draft

⁵⁶ p133, IBBS Round V, 6th May Final Draft

⁵⁷ p79, IBBS Round V, 6th May Final Draft

⁵⁸ Non-SW MSM have been reached to some extent by the regional Global Fund MSM grant. Programming for FSW has had a hiatus for a significant period of time due to interruptions in domestic funding flows.

cities included in both rounds IV and V with a significant portion of a particular key population the data appears to show positive trends for the following:

- Needle sharing among PWID during last injection dropped from 25% to 5% in Karachi.
- 71% of HSW tested for HIV in the last 12 months in Karachi (2016), compared to 20% testing in the last 6 months in 2011.
- Consistent condom use with paid clients among MSW in Lahore increased from 18% in 2011 to 32% in 2016.
- HIV testing rates for MSW improved in Karachi (from 24% in last 6 months in 2011 to 65% in the last 12 months in 2016), Lahore (from 0% in the last 6 months in 2011 to 17% in the last 12 months in 2016), and Multan (from 0% in the last 6 months in 2011 to 14% in the last 12 months in 2016.)

On the other hand, negative trends are illustrated by the following:

- Testing rates for FSW in Karachi was 46% (last 6 months) in 2011 but only 5% in 2016 (last 12 months.)
- Consistent condom use with paid clients among HSW was 24% in 2011 but only 13% in Karachi. The respective figures for HSW in Faisalabad were 23% and 0%.
- Consistent condom use with non-paid clients among HSW was 17% in 2011 but only 1% in 2016 in Karachi. The respective figures for Lahore were 22% and 7% and for Faisalabad 18% and 0%.

This is a mixed bag of results, which is suggestive of patchy key population programme coverage. They are indicative of a generally poor level of coverage for programmes targeting sexual transmission among key populations. They may also reflect the fact that programming has been suspended for domestically funded key population programmes due to delays in the funding application process. To address the uneven coverage a key feature of the revised version of PAS III is the attempt to prioritise particular cities for particular key populations for programme coverage expansion (see section 4.3.1.)

2.5 People Living with HIV

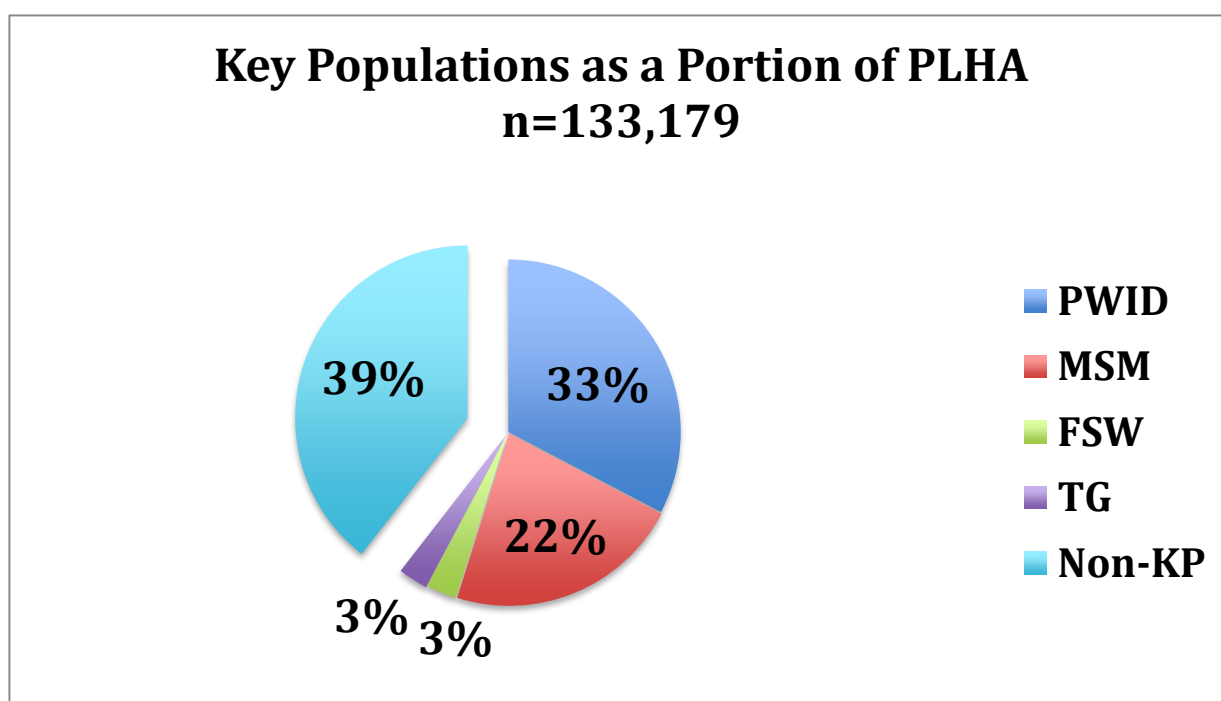
Based on the prevalence rates coming out of IBBS Round V the National AIDS Control Programme of Pakistan has estimated that the total number of people living with HIV/AIDS in Pakistan as of the end of 2016 is 133,179. This estimate was derived using the Spectrum software tool.⁵⁹ The estimated distribution across the four provinces of Pakistan is as follows:

⁵⁹ See, <http://www.unaids.org/en/dataanalysis/datatools/spectrumapp>, retrieved 22nd April 2017.

Punjab	65,999	50%
Sindh	56,898	43%
Khyber Pakhtunkhwa	7,197	5%
Balochistan	3,085	2%
Total	133,179	100%

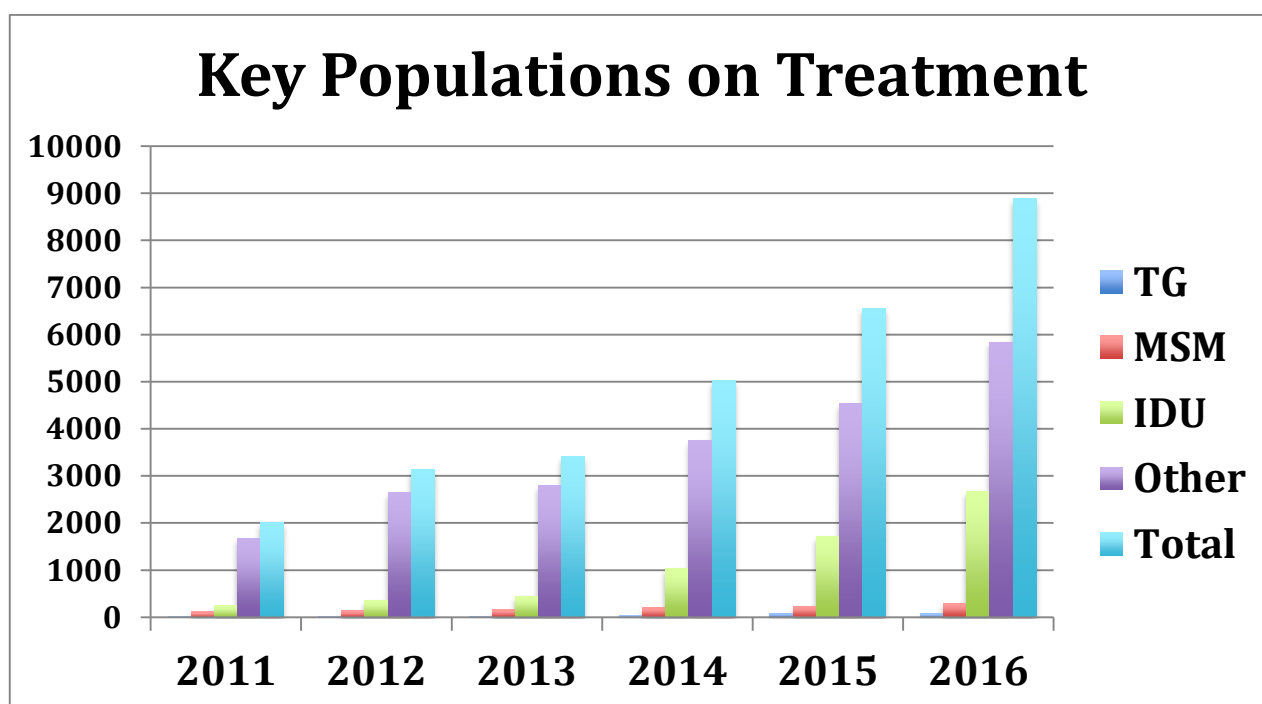
This indicates that, as far as geographical focus is concerned, 94% of the people that need to be reached with prevention, testing and treatment programmes are to be found in the two provinces of Punjab and Sindh.

Our key population estimates and prevalence rates tell us that 61% of the total estimated number of PLHA are from key populations with the breakdown as follows:



The greatest yields for increasing coverage of testing and treatment programmes are likely to be found first and foremost by scaling up programming for PWID and MSM. Given the concentrated nature of Pakistan's epidemic it is likely that a significant portion of the non-key population segment of PLHA are spouses or intimate partners of members of these two key population groups (see section 2.6 below for more analysis concerning spouses of key populations.)

Data from the national MIS system can be used to estimate treatment coverage levels at the end of 2016. The first point to note is that treatment coverage has been expanding and there was a notable new spurt in growth of treatment coverage in 2014. A key driver of this growth spurt has been the increase in numbers of PWID coming into treatment. Overall treatment numbers are up 160% from 3,412 people on treatment at the end of 2013 to 8,888 at the end of 2016.



The numbers of PWID on treatment jumped 132% in the 12 months from the end of 2013 to the end of 2014. An evaluation report of Global Fund civil society PR Nai Zindagi's ART Adherence Unit for HIV positive PWID initiating treatment highlights that this increase coincided with the opening of the facility. The report estimates that clients of the facility accounted for some 85% of the growth in numbers of PWID on treatment between 2013-2015.⁶⁰ This suggests PWID ART initiation rates are responsive to targeted programming efforts.⁶¹

However, whilst acknowledging these successes it has to be conceded that overall treatment coverage rates are still extremely low. No more than 7% of the total estimated population of people living with HIV is on treatment.⁶² For HIV positive people from key populations the treatment coverage rate is even lower at 4%. Whilst people from key populations account for 61% of the estimated number of PLHA, they account for only 34% of those on treatment. In terms of actual numbers the largest numbers of PLHA will be found within the PWID and MSM populations.

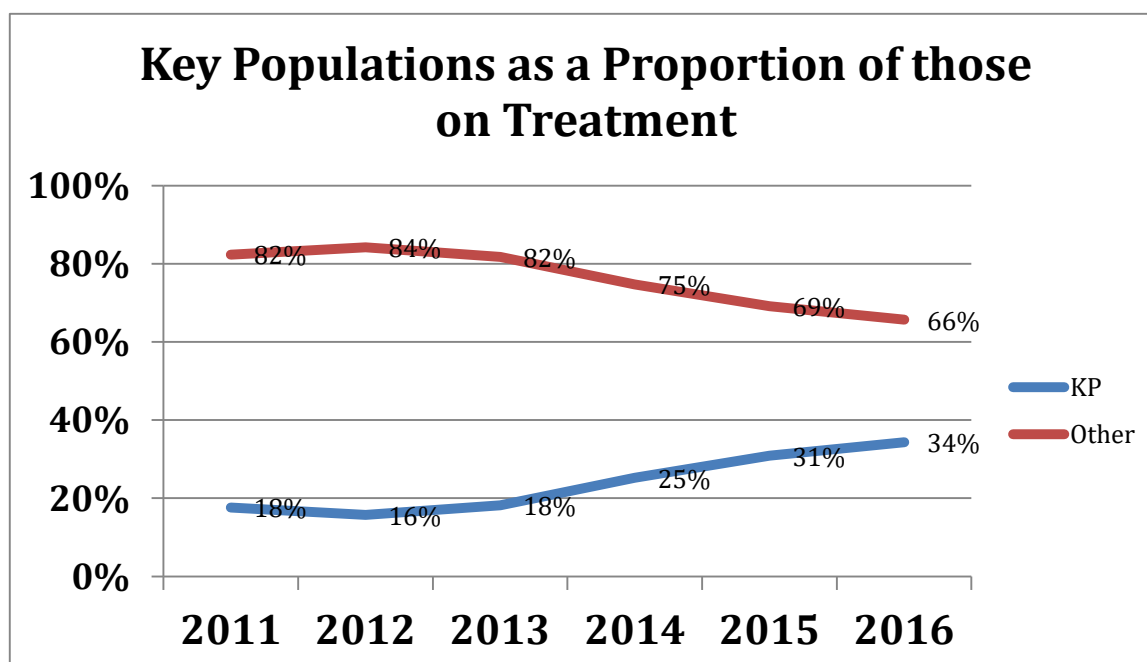
⁶⁰An Evaluation of Nai Zindagi's ART Adherence Unit, April 2016, see http://media.wix.com/ugd/c0eb6b_926d9c3b6f174cfda4bd8419cc71fdb7.pdf, retrieved 22nd April 2017.

⁶¹ Interestingly the ART Adherence Unit (AAU), as the name suggests, was conceived of primarily as a way of helping to address poor treatment retention rates among PWID. The AAU is a residential rehabilitation facility for HIV positive PWID that combines treatment for opioid dependence with HIV treatment adherence support. Treatment retention has historically been recognized as an important issue for PWID that requires tailored programming (it still does,) but less attention has been given to the need for tailored treatment preparedness and initiation support for this population.

⁶² UNAIDS estimated Global coverage of ART to be at 46% at the end of 2015 with coverage in the Asia Pacific region being 41%. See **Global AIDS Update**, UNAIDS, 2016, p3-4.

However, only 6% of positive PWID, 2% of positive TG, 1% of positive MSM and only seven positive FSWs were on ARV at the end of 2016.

The majority of people (66%, n=5832) on treatment at the end of 2016 were not classified as belonging to a key population group at all. Given the stigma attached to key population membership it is possible that some of these “others” may actually be from key populations but have chosen not to disclose this fact when accessing treatment. We currently have no basis on which to judge the extent to which the data under-represents treatment coverage of key populations. The majority of the “others” on treatment (67.7%, n=3947) were classified as belonging to the general population. A further 16% (n=937) were classified as migrants (see section 2.8.1 below,) and two individuals were identified as prisoners (see section 2.8.2 below.) The remaining 948 (16.3%) were simply classified as “unknown.” Overall the trend has been for an reduction in the proportion of people on treatment that are not classified as belonging to a key population (see chart below.)



Treatment coverage is a product not only of rates of initiation but also rates of attrition. The original version of PAS III cited research showing considerably higher loss to follow up rates among PWID on treatment than other populations.⁶³ There have been no new longitudinal surveys on population specific attrition rates since the publication of PAS III. A cross-sectional comparison of PWID attending versus not attending Nai Zindagi’s ART Adherence Unit found that AAU attendees were 43-51 times more likely to be adherent in a period between 7 and 19 months of treatment initiation than PWID not attending the facility.⁶⁴ This suggests that, as for treatment initiation rates for PWID,

⁶³p44, PAS III, 2015.

⁶⁴p21, An Evaluation of Nai Zindagi’s ART Adherence Unit, April 2016, see http://media.wix.com/ugd/c0eb6b_926d9c3b6f174cfda4bd8419cc71fdb7.pdf, retrieved 22nd April 2017. http://media.wix.com/ugd/c0eb6b_926d9c3b6f174cfda4bd8419cc71fdb7.pdf, retrieved 22nd April 2017.

treatment retention rates for this population are also responsive to targeted programmes designed to address the problem.

As an indication of recent attrition rates among all people on treatment we have the following figures from NACP's MIS:

A	PLHA on ART end Dec 2015	6,564
B	PLHA on ART end Dec 2016	8,888
C (B-A)	Increase in ART clients	2,324
D	Newly initiating treatment in 2016	4,082
E (D-C)	Attrition	1,758
	Attrition Rate	27%

Unfortunately, we are unable to reliably disaggregate attrition rates by key population group based on the data in the national MIS.⁶⁵ At most we can conclude that there is some indication of a relatively low 12-month retention rate.⁶⁶ Clinicians consulted in the course of the strategy development process tended to attribute this to the particular challenges of treating PWID. There is a clear need for data systems strengthening so that this assertion can be verified and progress in addressing it monitored. If indeed the attrition rate is to a large extent attributable to PWID then programmes that specifically address this issue for this particular population need to be strengthened.

2.6 Prevention of Parent to Child Transmission

The original version of PAS III noted both poor coverage of PPTCT⁶⁷, and the vulnerability of female intimate partners of male key populations to HIV infection,⁶⁸ and concluded that the challenge of reaching positive pregnant women in a concentrated epidemic requires “coordinated efforts with key population prevention programmes.”⁶⁹ It was estimated at the time that PPTCT coverage was at 8.1% of pregnant women.⁷⁰

In March 2016 UNICEF published an evaluation of Pakistan's PPTCT programme.⁷¹ The evaluation reviewed eight years of the programme from 2007 to 2015 to determine “the extent to which PPTCT programme was successful in reaching HIV positive women and their families with the package of

⁶⁵ An attempt to derive the attrition rate for PWID in 2016 using the same analysis produced an implausible attrition rate of 10%. It was speculated that this might be due to the fact that not all clinics are entering data into the system.

⁶⁶ A meta-analysis of ART retention rates in low and middle income countries found adjusted 12 month retention rates to be around 83%, compared to Pakistan's 73%. In general Asia has higher than average retention rates. See, **Retention of Adult Patients on Antiretroviral Therapy in Low- and Middle-Income Countries: Systematic Review and Meta-analysis 2008–2013**, Fox and Rosen, J Acquir Immune Defic Syndr. 2015 May 1; 69(1): 98–108. doi:10.1097/QAI.0000000000000553.

⁶⁷ p52 **PAS III**, 2015, the paper cited is Daud MY, Qazi RA, Bashir N. **Anti-retroviral drugs compliance in intravenous and non intravenous drug abusers**. Journal of Ayub Medical College Abbottabad. 2014;26(4):437-40. It tracked attrition rates among PWID and non-PWID over a 5 year period and found that at the end of the period 59.25% of PWID were lost to follow up compared with 2.46% in non-PWIDs. Since the publication of that paper there have been new services aimed at supporting adherence among PWID.

⁶⁸ *ibid.* p23

⁶⁹ *ibid.* p52

⁷⁰ *ibid.* p52

⁷¹ **Evaluation of the Prevention of Parent to Child Transmission (PPTCT) of HIV Programme in Pakistan**, March 2016, UNICEF

PPTCT services.”⁷² The report contains a number of findings that have been used to inform this revision of PAS III.

Firstly, the report confirms the “very low” coverage of the PPTCT programme estimating it to be between 1.5%-3.5% of eligible women as per Spectrum 2014 estimates. This is lower than the original estimate given in PAS III, and lower than the more recent estimate of 5.3% for 2016. This later estimate is based on 125 pregnant women receiving ART in 2016 to prevent mother to child transmission, expressed as a percentage of the average of the 2014 and 2015 Spectrum estimates of the total number of pregnant women living with HIV (n=2,358).⁷³

Regardless of which figure is correct, the conclusion, that coverage of PPTCT programmes in Pakistan is very low, remains the same. It is clearly well short of the recommendation from the global guidance that we should “reach and sustain 95% of pregnant women living with HIV with lifelong HIV treatment by 2018.”⁷⁴ In this regard it should be noted that the second of UNAIDS Fast-Track Commitments is to “eliminate new HIV infections among children by 2020 while ensuring that 1.6 million children have access to HIV treatment by 2018.”⁷⁵

The second important point from the report is that for the small proportion of HIV positive pregnant women who do access ARV through it, the PPTCT programme is highly successful. In the last eight years it is estimated that the programme has reduced mother to child transmission of HIV (for those treated) “from 30-40% (no intervention) to 1.35% with no maternal deaths,” and averted a total of 86-116 infections.⁷⁶

The main conclusion of the report is that “low coverage undermines effectiveness” of the PPTCT programme⁷⁷ and significantly reduces cost effectiveness. It notes that the current coverage of the ART treatment programme is skewed towards spouses of migrant workers, with spouses of PWID and other key populations making up less than 20% of the women reached by ART centres.⁷⁸ It further highlights that “access to and uptake of PPTCT services is determined foremost by good case identification and availability of HIV testing and counselling services to those key populations especially their spouses.”⁷⁹ There is an “urgent need” to strengthen key population prevention programmes and their linkage with the PPTCT programme and the emphasis should be on “integration of PPTCT skills and services in outreach and service delivery programmes for PWID, SWs and other bridging populations rather than the general population.”⁸⁰ On the basis of this

⁷²*ibid.* p7

⁷³ Data provided by UNICEF/NACP

⁷⁴ **Start Free Stay Free AIDS Free**, a super-fast-track framework for ending AIDS among children, adolescents and young women by 2020, see http://www.unaids.org/en/resources/documents/2016/20160926_startfree_vision (accessed 16th April 2017)

⁷⁵ p2, **Fast Track Commitments to End AIDS by 2030**, UNAIDS.

⁷⁶ p2, **Evaluation of the Prevention of Parent to Child Transmission (PPTCT) of HIV Programme in Pakistan**, March 2016, UNICEF

⁷⁷*ibid.* p50

⁷⁸*ibid.* p2

⁷⁹*ibid.* p54

⁸⁰*ibid.* p63

evaluation a strategic framework for PPTCT in Pakistan has been drawn up.⁸¹ The targets in this strategic framework have been used to guide target setting in this revised national AIDS strategy.

Regarding spouses of key populations IBBS Round V records marriage rates of 37.7% for PWID, 37.1% for non-SW MSM, 22.7% for MSW and 10.5% for HSW. If we apply these rates to the PSEs for these populations the majority of female spouses of members of key populations are married to non-SW MSM. So, for example, there could be as many as 288,220 spouses of non-SW MSM as compared to 42,760 spouses of PWID. However, given the much higher prevalence rate of HIV infection one would expect spouses of PWID to be particularly vulnerable. Nai Zindagi has been providing testing services to spouses of HIV positive PWID. Of 2,073 spouses tested in 2016, for example, 3% have tested positive. Between 2014 and 2016, 38 spouses of PWID have been referred to PPTCT services.

It should be noted that the issue of reaching spouses of key population members through referral from those testing positive is a complex one. The UNICEF evaluation notes that “PPTCT and ART providers report the persistent lack of disclosure of HIV status by some male patients and the dilemma of patient confidentiality versus the rights of women to protect themselves from HIV infection.”⁸² HIV status will not be the only disclosure issue; the risk behaviour that the male has engaged in may also be entirely covert. If programmes become known for forcing disclosure to spouses they will deter the very people they need to reach from accessing their services.

The conclusions from the UNICEF PPTCT evaluation tie in well with the strategic adjustments that were proposed in the previous section of this strategy revision in relation to the new global guidance, particularly around targeted testing. Moreover, the report recommends an enhanced role for NGOs as a low cost local solution noting that NGOs/CBOs “can be further strengthened for reaching out to those most at risk, forming care and support linkages, providing HTC, and PPTCT specific services such as decisions on infant feeding options, follow-up of mothers and testing of infants (using dried blood spots).”⁸³ This too aligns well with the strategic adjustments being proposed in this revision of PAS III.

Finally, in relation to PPTCT, it is also worth noting the findings of a report by the APLHIV published in October 2015. This concerned a rapid assessment of 120 women living with HIV of whom 95% were on ART. The report notes, “Widespread stigma and discrimination among health care providers and at the community level create significant barriers to accessing basic services.”⁸⁴ It also found that due to the vertical nature of different service delivery programmes “staff trained to provide maternal and child health or family planning services are often unaware of and untrained in

⁸¹ **Strategic Framework for PPTCT of HIV in Pakistan**, January 2017, NACP

⁸² *ibid.* p35

⁸³ *ibid.* p53

⁸⁴ p27, **Rapid assessment of sexual & reproductive health and rights of HIV-positive females in Pakistan**, APLHIV, October 2015

the needs of HIV-Positive females.”⁸⁵ The need to address the stigma barrier was flagged above in Section 1.3. The issue about staff training echoes a recommendation from the UNICEF report that “health providers...should be trained and made aware of PPTCT across all provinces (districts) as part of the routine MNCH service package.”⁸⁶

2.7 Gender and Age

The original version of PAS III was designed with reference to an assessment on integrating gender into the strategy conducted by UNAIDS.⁸⁷ This revision adheres to the same principles and proposes a strategic shift in terms of a stronger emphasis on integrating programming for key population spouses into the community-based programmes targeting particular key populations.⁸⁸ The stronger focus on community-based prevention programming for key populations in this revision of PAS III is premised on the assumption that the respective gender and age demographics of these populations will be reflected in the community-participants involved in delivering these interventions. This revision also makes particular recommendations in relation to the need for tailoring community-led interventions for both male and female sex workers to address the particular vulnerabilities of the significant number of adolescents within those populations. Moreover it stresses that Hijra and MSM are distinct communities with distinct genders requiring tailored programming with full involvement from members of those respective communities.

With the exception of PWID the key populations of Pakistan’s concentrated epidemic are gendered, by definition, into the three genders of male (MSW, non-SW MSM), female (FSW) and transgendered (TG/HSW). Successive rounds of IBBS have only managed to survey very small numbers of female PWID.⁸⁹ The report for Round V IBBS comments that “there is no evidence that injecting drugs among females is a very common phenomenon in Pakistan.”⁹⁰ Programmatic data from Nai Zindagi also reveals very low numbers of female injecting drug users; some 0.4% (n=160) of total PWID reached in the project lifetime. Available evidence suggests that the population of PWID in Pakistan is predominantly male.

The Spectrum analysis estimates that 31% of the 133,179 people living with HIV are female. However, women represented only 23% of the 8,888 on treatment at the end of 2016. This suggests that women have poorer treatment access than men. It is notable that the number of female sex workers on treatment is negligible (only seven women as of the end of 2016.) In so far as women are accessing treatment the data suggests that they are more likely to be spouses of migrant workers than female sex workers. Attempts to improve the coverage of the PPTCT

⁸⁵ *ibid.*

⁸⁶ p3, **Evaluation of the Prevention of Parent to Child Transmission (PPTCT) of HIV Programme in Pakistan**, March 2016, UNICEF

⁸⁷ **Integrating gender into Pakistan AIDS Strategy III, Assessment Summary Report**, UNAIDS, February 2015.

⁸⁸ Existing programming for PWID run by Nai Zindagi already integrates these services with the deployment of female outreach workers to address the needs of spouses and family members of PWID.

⁸⁹ Round IV surveyed 39 female PWID compared to 23 female PWID surveyed by Round V. These figures represent 1.6% and 0.6% of their respective samples.

⁹⁰ p47, IBBS, Round V May 6th Final Draft.

programme discussed above will be dependent on addressing the treatment coverage deficit for women.

Compared to Round IV, Round V IBBS lowered the survey age inclusion criteria for PWID, FSW, and HSW to 13 years old. This meant that the same lowest age of eligibility was used for all key populations surveyed. Despite this FSW, MSW and HSW younger than 20 made up smaller proportions of the survey samples for those populations than for Round IV. The highest portion of youth for both rounds has been among male sex workers. Individuals aged between 13-19 constituted 23% of MSW surveyed, 6.6% of FSW surveyed, 6.3% of HSW surveyed and 3.1% of PWID surveyed. Applying these proportions to the respective population size estimates for each of these groups would suggest the majority of young key population members are to be found among male (12,728) and female (11,448) sex workers.

The IBBS survey also asked respondents about their age of initiating sex work. HSW and MSW appear to initiate younger at an average of 17 years of age, whereas for FSW the average age of initiation was 22. This difference between HSW/MSW on the one hand and FSW on the other, was mirrored in Round IV results although in that survey the average ages of initiation were slightly lower. For PWID the average age of initiating injecting drug use was 27 in the 2016 survey. As commented earlier, these summary statistics are not weighted. The programming implications would appear to be that programmes for female and male sex workers in particular need components tailored to address issues specific to young (adolescent) sex workers.

Current MIS data shows that 24.4% of the 8,888 people on treatment are young people with a breakdown as follows: adolescents 22.6%, children 1.6% and infants 0.6%.⁹¹ Comparison with the overall distribution of PLHA across these same age groupings is not possible because the age bands in Spectrum are not well aligned with the WHO age groupings cited. The only age group that is completely aligned is adolescents (10-19.) Spectrum estimates that only 2% (n=2,385) of the overall estimated number of PLHA in Pakistan are adolescent. This would mean that the current treatment coverage for adolescent PLHA stands at 84% (n=2010); by far the most extensive treatment coverage of any group in Pakistan.⁹²

2.8 Vulnerable Populations

The original version of PAS III had a strategic output specifically targeting “vulnerable populations”. The original version of the strategy does not explain the concept of vulnerable populations, and how it differs from key populations. The WHO defines key populations as “groups that have a high risk and disproportionate burden of HIV in all epidemic settings” and vulnerable populations as “groups of people that are vulnerable to HIV in certain situations or contexts”. WHO proposes that “each

⁹¹ Age groups defined with reference to WHO guidelines as follows: Adult = >19, Adolescent = 10-19, child = 1-9, infant = <1. See p xii, **Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection**, WHO, 2016.

⁹² Given the generally low coverage rates of the treatment programme this results stands out. Unfortunately the data available from NACP's MIS did not lend itself to further analysis that would help explain the phenomenon.

country should define the specific populations that are vulnerable and key to their epidemic and response, based on the epidemiological and social context.”⁹³

The original version of PAS III gives several different examples of vulnerable populations at different places in the document but the most frequently mentioned are migrant workers and prisoners. In contrast, the WHO guidelines classify prisoners as a key population (along with MSM, PWID, sex workers and TG.) The guidelines concur with the classification of migrant workers as a vulnerable population. IBBS in Pakistan has previously only treated PWID, FSW, MSW and HSW as key populations, though in the last round, as discussed, MSW and HSW were surveyed as sub-groups of the larger MSM and TG populations. For the sake of continuity, this revised version will continue to classify prisoners and migrant workers as vulnerable populations.

A key problem with responding to HIV infection among these vulnerable populations in Pakistan has been the limited amount of strategic information. The remainder of this section looks at what new information we have for migrants and prisoners.

2.8.1 Migrants

Since the publication of PAS III the International Organization for Migration (IOM) has published a baseline assessment on health vulnerabilities of Pakistani migrant workers.⁹⁴ The assessment surveyed 200 returning and 200 departing migrants. Most (all bar 5) were men and most (80%) under the age of 35. Four of the seven areas covered in the assessment were from “the migrant-dense province Khyber Pakhtunkhwa.”⁹⁵ The assessment report notes the relatively high volume of migration for work from Pakistan, citing an ILO report that “in 2013, a total of 609,478 individuals migrated to the top six receiving countries, Saudi Arabia, United Arab Emirates, Oman, Bahrain, Qatar and Kuwait.”⁹⁶ It notes that labour migration out of Pakistan predominantly involves young unskilled male workers, and acknowledges the potential vulnerability of increased engagement in risk taking behaviours such as “purchasing commercial sex.”⁹⁷

Unfortunately, due to response bias⁹⁸, the survey results cannot be used to establish an HIV risk profile for the population. Although the survey covered behaviours and knowledge related to HIV, only 14% reported ever having had sex and 45% provided no information on their sexual activity. Given this response rate it makes little sense to draw any firm conclusions about HIV risk among migrants on the basis of this data. There does seem to be a level of awareness about HIV among the sample with 74% being familiar with HIV and “of those that had heard of AIDS, over 90 per cent

⁹³*Ibid.* pxii,

⁹⁴**Health Vulnerabilities of Migrants from Pakistan, Baseline Assessment**, IOM, August 2015.

⁹⁵*Ibid.* p15

⁹⁶*Ibid.* p21.

⁹⁷*Ibid.* p22

⁹⁸*Ibid.* p18 notes the seriousness of the response bias around ‘sensitive questions.’

were aware that HIV could be transmitted through unprotected sex and from sharing needles.”⁹⁹ Only five respondents reported a history of STI.

Treatment data from NACP’s MIS shows us that a total of 935 migrants were on treatment at the end of 2016 of which 99% are in Khyber Pakhtunkhwa. Migrants make up 66% of all people on treatment in the province. Migrants on treatment are also recorded in Sindh (6) and Balochistan (1).

2.8.2 Prisoners

We were unable to identify any new strategic information published on HIV and prisoners in Pakistan since the original publication of PAS III in 2015. However, a study conducted by UNODC on HIV prevalence and associated risk behaviours among male prisoners in Sindh province, which does not appear to have been cited in the original version of PAS III, contains much that it is still relevant.¹⁰⁰ This bio-behavioural surveillance study that sampled 1,198 prisoners in five prisons found an overall HIV prevalence of 2.3%.¹⁰¹ The study cites older research in other prisons in both Sindh and Punjab provinces, which have found prevalence rates from 1% to 4.4%.¹⁰² Comparatively, it will be recalled that the prevalence rate for FSWs is 2.2% and for non-SW MSM 3.4%, both of which are considered key populations. The prison population is reported as 83,026 for the month of February 2017, of which 98% (n=81,527) are male.¹⁰³ A prevalence rate of 2.3% applied to all male prisoners would indicate potentially as many as 2,608 PLHA in prison settings.

There was clear evidence in the study of a confluence of risk factors with 36% of inmates reporting ever having sold sex for money and 9.8% reporting ever having injected drugs.¹⁰⁴ Given that defining aspects of the behaviour of our key populations are criminalised in Pakistan, prisons represent places where we would expect to find significant numbers of people from those groups. They also represent places where risk behaviours take place. The study cites higher rates of observed risk behaviours as opposed to self-reported behaviours: just over half reported seeing fellow inmates use drugs in prison and just over 40% reported knowledge of other inmates having sex in prison.¹⁰⁵

The report calls for recognition of prisons as “settings with high risk of HIV transmission,”¹⁰⁶ and recommends that prisons provide “easy access to voluntary HIV testing and counselling”¹⁰⁷. It further recommends the implementation of risk reduction programmes inclusive of condom distribution and “where possible, clean needles should be made available.”¹⁰⁸ National MIS data records only 2 prisoners on ARV treatment at the end of 2016, both in Balochistan.

⁹⁹ *ibid*, p32.

¹⁰⁰ **HIV Prevalence and Associated Risk Behaviours among Male Prisoners in Sindh, Pakistan**, UNODC, 2013.

¹⁰¹ *ibid*, p29

¹⁰² *ibid*, p6

¹⁰³ Province wise consolidated list showing the number of prisoners confined in prisons for the month of February 2017, Law and Justice Commission of Pakistan, see http://ljcp.gov.pk/nljcp/assets/dist/news_pdf/ji.pdf accessed 26th April 2017.

¹⁰⁴ *ibid*, p3

¹⁰⁵ *ibid*, p24

¹⁰⁶ *ibid*, p30

¹⁰⁷ *ibid*, p3

¹⁰⁸ *ibid*, p30

2.9 Human Rights and Gender Related Barriers

In a concentrated epidemic such as Pakistan's, with the bulk of the burden of infection being among key populations whose behaviour is both criminalised and highly stigmatised, human rights and gender issues can have significant implications for strategic efforts to increase programme coverage among these groups. A recent technical note from the Global Fund noted that "Human rights and gender-related barriers ... block uptake of and retention in HIV prevention and treatment services."¹⁰⁹

The original version of PAS III gives an overview of issues around gender inequality, punitive laws and stigma and discrimination¹¹⁰ while still hold true today. On a positive note there have been some encouraging developments with the protection of the rights of transgender people. In 2011 Pakistan's Supreme Court issued a ruling ordering the country's election commission to collect data from the transgender community and register them as voters.¹¹¹ In 2017 the Lahore high court issued an order to the government, National Database and Registration Authority and the interior ministry for the inclusion of transgender people in the upcoming national census.¹¹²

Stigma and discrimination issues were explicitly mentioned by the key population members consulted in the course of developing this strategy revision. The main issue raised was the experience of stigma and discrimination in health care settings when seeking access to treatment. It typically comes in the form of judgmental attitudes towards individuals from key populations and a tendency to attempt to morally instruct them. There was also a sense among some key population groups that there was an unspoken hierarchy of degrees of unacceptability between key populations though different groups may have different views about who is at the bottom of the pile. Some outreach programmes targeting key populations have reported experiences of outreach workers being arrested by police. A supportive relationship with provincial AIDS control programmes was deemed necessary to help mitigate these sorts of risks.

On a systemic level issues around acceptance play out at the level of discussions about the rationale for the strategic targeting of the resource investment towards a key population approach. For example some question the value of an investment in programming for injecting drug users, and there are on-going debates about the existence and scale of a population of men who engage in non-commercial sex with each other.

The issue of gender-based violence was referred to in community consultations in the context of corrective violence being administered to MSM typically from family members. It was further mentioned in relation to male sex workers with an example given of a sex worker who was led to believe he was meeting a single client only to discover there were a group of clients who violently

¹⁰⁹p4, **HIV, Human Rights and Gender Equality, Technical Brief**, The Global Fund, April 2017

¹¹⁰p14-15, PAS III

¹¹¹<http://www.rferl.org/a/pakistan beleaguered transgender community given new hope/24396423.html>, retrieved 3rd May 2017

¹¹²<https://thewire.in/98430/pakistan-lgbt-rights-national-census/>, retrieved 3rd May 2017

sexually assaulted him. Human rights violations also came up in dialogue with service providers working with PWID. For example, it was explained that many private detoxification centres in Pakistan amount to little more than incarceration.

2.10 Summary of Key Points Arising

- The largest proportions of the estimated population of PLHA (55%) are to be found among PWID (33%) and non-SW MSM (22%).
- The majority of people that need to be reached with testing and treatment (93%) are in Punjab and Sindh.
- Transmission is increasing among all key populations but at faster rates among sex workers; male and female sex workers in particular.
- Treatment coverage is improving with an encouraging increase in numbers of PWID on treatment, *but*,
- Both treatment coverage (7%) and prevention programme coverage (from 3.5% for non-SW MSM to 17.6% for PWID) remain too low to have a significant impact on the epidemic.
- Behavioural risk factors are still present at high levels for all key populations.
- There is evidence to suggest that programmes supporting treatment preparedness and adherence for PWID can have an impact on their treatment initiation and retention rates; these sorts of programme need to be scaled up.
- Treatment attrition rates in Pakistan are higher than regional and global averages.
- Programming for male and female sex workers needs to be tailored to meet the particular needs of young sex workers as appropriate.
- PPTCT coverage remains low at 5.3%; addressing this requires greater focus on reaching spouses of HIV positive key populations. The largest yield would likely be among spouses of PWID and non-SW MSM. This would also help address positive women's lower treatment access rates.

3. Revision of the PAS III Strategic Framework

3.1 Introduction

The overall goal of this revision of PAS III strategy is to reduce new HIV infections and increase access to care and treatment for people living with HIV.

As per the analysis in the previous two sections the strategy recognises that increasing the programming coverage of key populations is critical to achieving that goal. In particular, opening up HIV testing service coverage among key populations is a critical first step towards improving treatment coverage. At the same time addressing critical barriers to treatment access is essential for unblocking the flow of clients through from first point of contact and on into treatment. Finally, on-going support for retention for those that make it through to treatment is required to ensure impact.

The original version of the PAS III strategic framework consists of three “strategic priority outcomes”, each with a set of three “strategic outputs”. Under each strategic output are 2-3 “key output strategies.” This revised version of PAS III maintains the basic three-pronged approach (prevention, treatment and care, enabling environment,) but re-words and reconfigures the various components to better address the critical issues that were identified in the first section of this revision. These critical issues are as follows:

Critical Issue 1: Low prevention and testing programme coverage among key populations.

Critical Issue 2: The continued existence of barriers to treatment access and initiation.

Critical Issue 3: High treatment attrition rates, especially among PWID.

Critical Issue 4: A weak monitoring and evaluation system

The most significant change in the framework between the two versions is the shifting of testing programmes out of “treatment and care” and into “prevention”. This is both a conceptual and a physical shift. It represents the need to proactively take testing programmes to key populations to increase uptake. There is a shift from clinic to community as point of delivery and from clinic workers to community workers as mode of delivery. The result of this shift is that addressing Critical Issue 1 falls under the first strategic outcome, Critical Issues 2 and 3 fall under the second strategic outcome and Critical Issue 4 comes under the third strategic outcome.

The rest of this section gives an overview of the key features of the revised framework and its rationale. It does not go into the detail of each output strategy; that analysis can be found later on in section 5.

3.2 Outcome 1

Outcome 1 has been re-worded as follows:

Reduced risk behaviours and increased testing uptake among key populations and their partners

This new version of Outcome 1 singles out risk behaviour reduction and testing uptake as the critical issues for prevention. It reflects the shift of testing services into frontline prevention programmes. Outcome 1 still has three outputs with corresponding output strategies though these have been re-worded and re-aligned to varying degrees. The new outputs and strategies are as follows:

Output 1.1 Precision-targeting of high impact HIV prevention services with expanded coverage for key populations	Output Strategy 1.1.1 Expand coverage of community-based combination harm reduction/HIV prevention for PWID
	Output Strategy 1.1.2 Rapidly scale up community-led and community-based prevention programmes for MSM/MSW/HSW/FSW
	Output Strategy 1.1.3 Integrate prevention programme coverage of partners/spouses/family members into targeted key population programming where possible
Output 1.2 A ramped up investment in community-based HTC for all key populations (coverage aligned with epidemic burden)	Output Strategy 1.2.1 Fully integrate outreach testing services into expanded frontline prevention programmes for key populations
	Output Strategy 1.2.2 Develop new protocols for community-based testing that ensure complementarity between frontline screening and clinic based confirmation and client tracking across the divide
	Output Strategy 1.2.3 Integrate HTC for key population partners/spouses/family members into targeted key population programming where possible
Output 1.3 Selective prevention and testing programme coverage of vulnerable populations	Output Strategy 1.3.1 Establish and expand HIV services across priority prisons
	Output Strategy 1.3.2 Develop pre-departure prevention education for intending migrant workers, and a referral system to HTC, ART and PPTCT for returning migrants and their families in priority cities and peripheries in step-wise, phased approach

Notes on changes:

Outputs 1.1 and 1.2, and their corresponding strategies, have been largely re-written and re-aligned to better fit with fast-track goals and address critical issues. Output 1.3 has been slightly reworded. Output strategies 1.3.1 and 1.3.2 remain the same as in current version of PAS III. Output strategy 1.3.3 has become outputs strategies 1.1.3 and 1.2.3 to reflect the need to integrate the approach to spouses into the key population programming.

3.3 Outcome 2

Outcome 2 has been re-worded as follows:

Increased ART initiation and retention, with key populations and their spouses/partners proportionally covered.

The original wording focussed on morbidity and mortality reduction. This new version singles out treatment initiation and retention in order to focus the response on addressing these two critical issues.

Outcome 2 still has three outputs though these have been significantly re-worded to address the critical issues identified in section 1. New output strategies have also been added. The outputs and output strategies are as follows:

Output 2.1 Removal of key treatment initiation barriers for key populations and their partners/spouses	Output Strategy 2.1.1 Scale up comprehensive treatment preparedness services for PWID.
	Output Strategy 2.1.2 Implement a combined OST/ART treatment initiation programme.
	Output Strategy 2.1.3 Removed CD4 treatment eligibility criteria in line with WHO guidance and scale up “treatment for all” in a phased approach.
	Output Strategy 2.1.4 Address critical supply-side barriers chief among which are: <ul style="list-style-type: none"> • Travel distance • Limited opening hours • Complex registration procedures • Attitude of health care workers • Weak confidentiality procedures
	Output Strategy 2.1.5 Scale-up PPTCT services to provide equitable access to vulnerable and marginalized populations.
Output 2.2 Intensified treatment adherence support	Output Strategy 2.2.1 Implement intensified case management models, tailored to particular key populations, which provide adherence support across the clinic-

differentiated by key population	community divide. PWID in treatment will need particular attention.
	Output Strategy 2.2.2 Task-shift adherence support programmes with a new focus on delivery by community workers in community settings. Active involvement of key populations/partners/spouses as appropriate.
	Output Strategy 2.2.3 Address needs for care and support, including social protection and nutrition support, within the framework of a coherent adherence support programme.
Output 2.3 New innovations to capitalise on the full prevention benefit of treatment.	Output Strategy 2.3.1 Pilot PrEP for selected key population(s) with a view to reducing sexual transmission

Notes on changes:

The outputs for Outcome 2 have been completely revised to better address critical issues that are hindering the expansion of treatment coverage. The gap left by removing testing services from under this outcome has been filled with approaches to addressing particular initiation and retention issues. The respective strategies for each output give a clearer indication of the particular issues to be addressed. The rationale and approach of each strategy is further explained in section 5.

3.4 Outcome 3

Outcome 3 has not been re-worded and remains as follows:

Environment for effective AIDS response is enabled

Outcome 3 and its associated outputs and strategies remain largely unchanged from the original version of PAS III. The only addition is output strategy 3.2.3, which is necessitated by the changes made to Outcome 1. The assumption is that the new investment in community-based testing will need a corresponding initiative to build capacity around delivering these types of programme. The outputs and strategies are as follows:

Output 3.1 Enhanced use of strategic information to monitor HIV response coverage, quality and impact.	Output Strategy 3.1.1 Monitoring & Evaluation system strengthened for improved programme implementation
	Output Strategy 3.1.2 Support and disseminate HIV-related substantive and operational research.
Output 3.2	Output Strategy 3.2.1

Increased multi-sectoral coordination at Federal and Provincial Levels.	Implement targeted and sustained advocacy actions for policy reform, HIV integration and addressing stigma and discrimination.
	Output Strategy 3.2.2 Enhanced participation of multi-sectoral partners to increase service provision and uptake.
	Output Strategy 3.2.3 Capacity building around models for community-based HTC delivery.
Output 3.3 Increased sustainability of the response.	Output Strategy 3.3.1 Reduce costs of the HIV response through mainstreaming and efficiency improvements.
	Output Strategy 3.3.2 Increase domestic resource allocation and mobilise and align additional external resources for sustainability of the Response.
	Output Strategy 3.3.3 Improve Management and Implementation Arrangements.

A summary graphic of the revised strategic framework is presented in Annex 3.

4. The Use of AEM Modelling to Guide the Strategy Revision

4.1 Overview

As part of the process for revising the national strategy, and developing four new provincial strategies, national and provincial stakeholders engaged in an estimation and projection exercise using the Asian Epidemic Model (AEM.) The exercise took place over a series of workshops conducted between February and April 2017. Technical facilitation was provided by UNAIDS. The technical note on the exercise gives details.¹¹³ The AEM process is grounded in an extensive review of the available data on the national epidemic, including the data outputs of all successive rounds of IBBS.¹¹⁴ The population size estimates resulting from this exercise have already been extensively referenced in section 2 of this strategy document.

Aside from PSEs, the key output of the AEM exercise, in relation to this strategy revision, was the selection of an intervention scenario with an associated set of targets, costs and a projected impact forecast. This section gives a brief overview of this output, the basis on which it was selected, and how it has been used to guide the strategy.

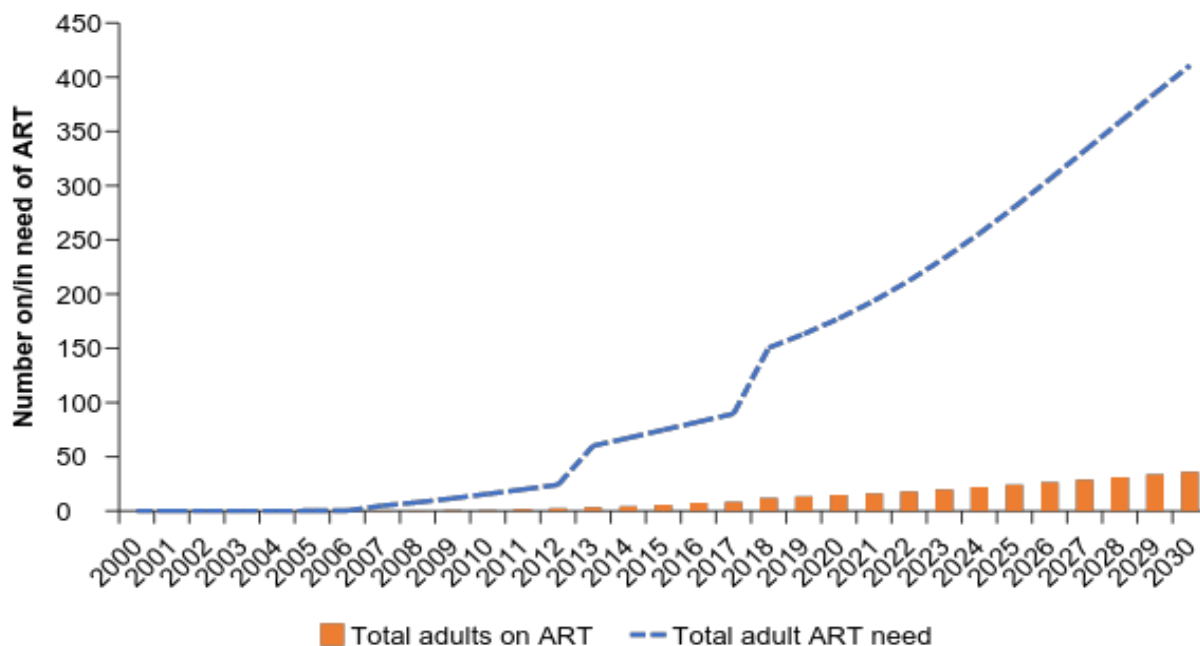
4.2 Baseline Projections

The AEM's baseline modelling assumes that interventions remain at the same level as in 2016. On the basis of this assumption projections are made as to the likely course of the country's HIV epidemic. The model predicts that if we maintain a "business as usual" approach, by the time this strategy expires in 2021 the number of people living with HIV/AIDS in Pakistan will have increased by 197% to over 193,000.¹¹⁵ The corresponding gap between the need for ART and the number of adults on ART would increase exponentially as illustrated in the following chart:

¹¹³ **Technical Note on AEM Exercise for Pakistan**, v3.4 Nguyen Thu Anh

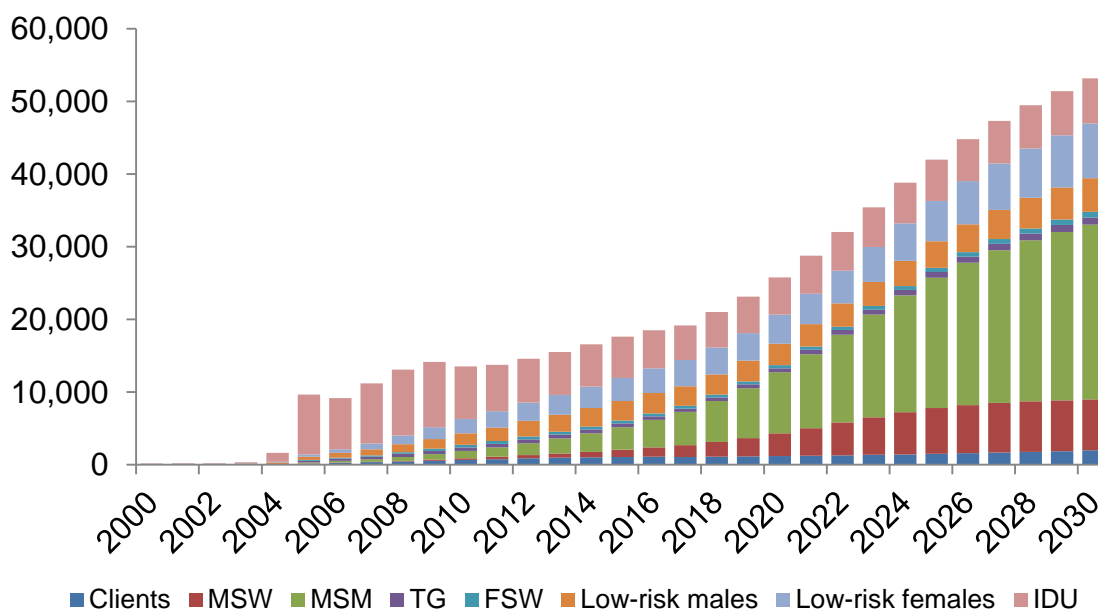
¹¹⁴ The AEM Exercise takes into account the entire range of data produced by successive rounds of IBBS. It identifies and adjusts for implausible data points, gives data an appropriate weighting, and fills in data gaps from complimentary sources. For example, it has already been noted that Round V IBBS excluded major cities in Punjab province in its survey of PWID and FSW. The AEM process compensates for this by plugging the data gaps in the recent round with adjusted data from previous rounds that did cover those cities.

¹¹⁵ p32, **Technical Note on AEM Exercise for Pakistan**, v3.4 Nguyen Thu Anh



With no change in the intervention level, sexual transmission, particularly among MSM, would come to drive the epidemic, accounting for the bulk of new infections:

Annual New Infections: by Risk Population, 1990-2030



It is clear that “business as usual” will not bring about our strategy’s goal of reducing new HIV infections. On the contrary, the disease burden will significantly increase, as will the vulnerability of spouses and intimate partners of key populations. The numbers of people that need treatment, and the cost of providing that treatment will be nearly three times what they are now.

4.3 Intervention Scenarios

Having established the baseline (i.e. what will happen if we continue business as usual,) the modelling exercise then constructed a number of intervention scenarios and projected their impact on the epidemic. These scenarios included an ambitious Fast-Track scenario based on the achievement of UNAIDS 90-90-90 targets by 2020, two High-Impact scenarios, one with, one without OST, and the Business as Usual scenario.¹¹⁶ After extensive discussion at a stakeholder consultation workshop conducted in Lahore from 3rd to 7th April 2017, it was agreed that the country would use the High-Impact Scenario without OST as a basis for the strategy development.¹¹⁷ The AEM scenario analysis demonstrated that the selected scenario would bring about “a significant reduction in new infections and total deaths.”¹¹⁸ The reasons for selecting High-Impact over Fast-Track were on account of the very low baselines which make the jump to fast track targets unfeasible. High Impact targets were deemed to be both ambitious and to have a significant impact on the epidemic (see below.) For further discussion on the issue of OST in Pakistan see section 5, output strategy 2.1.2.

The selected High Impact intervention scenario assumes a number of intervention parameters that were agreed in the course of the stakeholder workshop. Chief among these were the selection of priority cities for each key population and a core set of interventions for each key population based on current best practice.

4.3.1 Priority Cities

The selection of priority cities for each key population accords well with the global guidance recommending precision targeting in concentrated epidemics. For each key population the cities were prioritised on the basis of the estimated number of PLHA in that key population in each city. The number of cities prioritised for each key population was adjusted to ensure the achievement of the coverage levels required by the scenario. These numbers are as follows:

Province	High Impact Cities for FSW	High Impact Cities for PWID	High Impact Cities for HSW	High Impact Cities for MSM
Punjab	4	19	13	12
Sindh	5	4	5	4
KPK	2	3	2	4
Balochistan	1	2	1	1
Total	12	28	21	21

A total of 35 cities have been prioritised nationally of which 20 are in Punjab province, 8 in Sindh, 5 in Khyber Pakhtunkhwa and 2 in Balochistan. A full list of prioritised cities for each key population

¹¹⁶ A full comparative analysis of all the scenarios, at provincial and national level, is presented in the technical note on the workshop. See **Technical Note on AEM Exercise for Pakistan**, v3.4 Nguyen Thu Anh

¹¹⁷ p35, *ibid.*

¹¹⁸ p35, *ibid.*

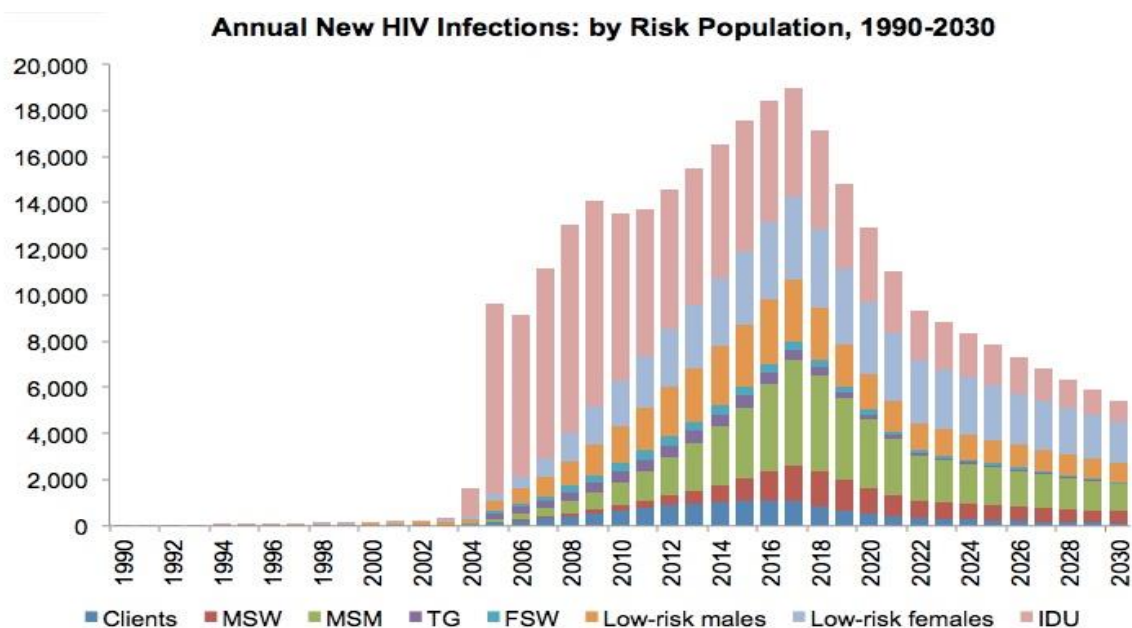
can be found in Annex 1. The High Impact Scenarios were constructed on the assumption that for Sindh and Punjab intervention levels in *non*-priority cities will be maintained at the same level as in 2016. Programme scale-up is targeted towards priority cities only.¹¹⁹

4.3.2 Intervention Packages

The contents of the interventions packages for each key population, and for treatment, were derived from consultations with programme implementers in Lahore. Packages for all key populations were inclusive of behavioural interventions, condoms and lubricant programming, HIV testing services, and STI treatment. NSEP programming, treatment preparedness/adherence support and spousal prevention were additionally included for PWID. The treatment package included a phased introduction of treatment for all in 2018 (priority cities,) CD4 and viral load testing, OI diagnosis and prophylaxis, and linkages to care and adherence support. A complete list of the intervention packages included in the model can be found in the Technical Note for the modelling exercise and is annexed to this strategy.¹²⁰

4.4 Impact Analysis

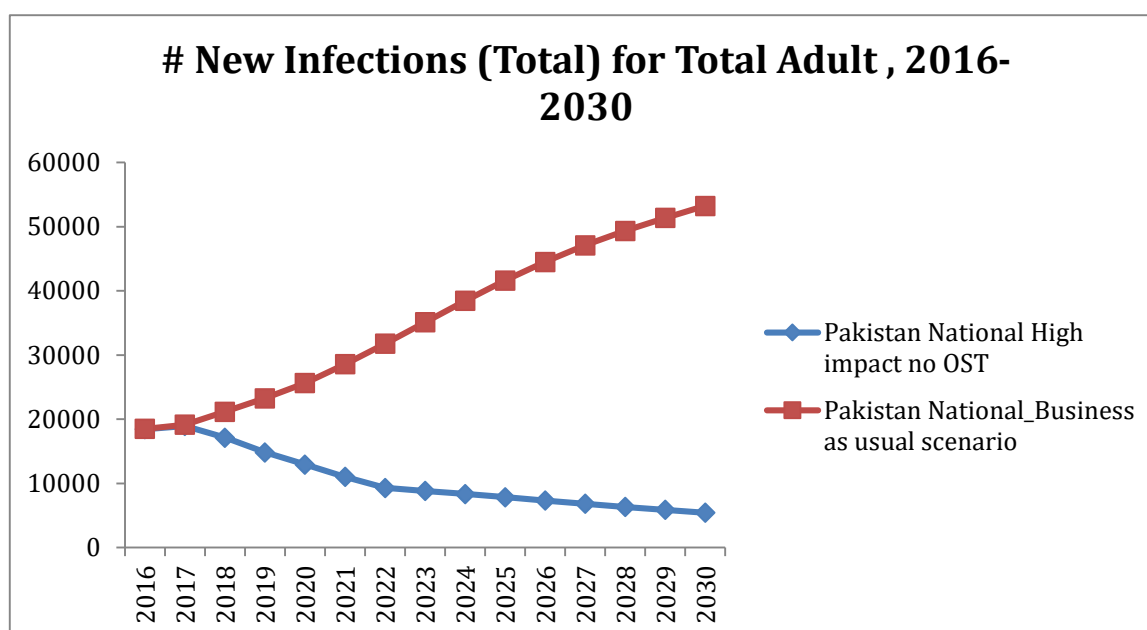
The impact of the selected scenario on the rate of new infections is illustrated in the following graph:



¹¹⁹At the time of writing there is an on-going dispute about the validity of the city-level PSEs derived from IBBS Round V. City prioritization was based on these PSEs. If at any point the PSEs are revised, or consensus is reached about their non-validity, the city prioritization exercise would need to be revisited. There is a risk of misdirecting resources if the estimates are significantly wide of the mark.

¹²⁰P13-14, **Technical Note on AEM Exercise for Pakistan**, v3.4 Nguyen Thu Anh

Annual new infections begin to decline in 2018 falling below 2005 levels by 2022. The following graph compares the impact of the selected scenario on new infections with the baseline (business as usual) scenario:



Overall, by 2021 the selected scenario is projected to avert around 43,000 HIV infections and 19,000 deaths.

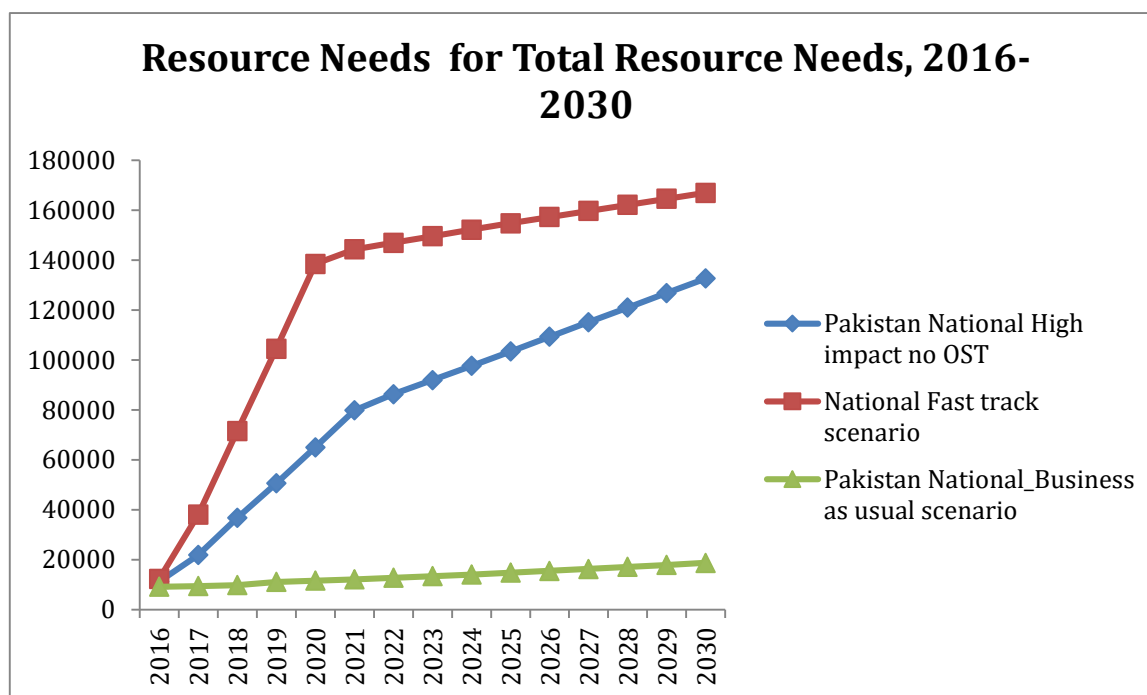
4.5 Resource Needs

In addition to assessing the impact of different levels of intervention on the course of the epidemic AEM also allows for an assessment of the resource needs of each intervention scenario. To do this unit costs were estimated for the interventions for each key population and for the treatment programme. These costs were derived based on existing best practice models in Pakistan. Details of the costing assumptions for the High Impact Scenario are included in the note on the modelling exercise.¹²¹ The unit costs for the different programme components were as follows:

Programme Component	Unit cost (USD)
FSW	131.10
PWID	218.00
MSW, HSW, MSM	71.60
Treatment	247.00

The comparative resource needs of the selected High Impact scenario compared to the both the Business as Usual (baseline) and the Fast Track Scenarios are depicted in the following chart:

¹²¹p17, Technical Note on AEM Exercise for Pakistan, v3.4 Nguyen Thu Anh



Both the Fast Track and the selected High Impact scenarios represent a significant increase in investment in the response to HIV in Pakistan. Business as Usual requires an investment of \$63 million from 2016 to 2021. The Fast Track scenario requires a 704% increase on the Business as Usual investment over the same period totalling \$509 million. The selected High Impact scenario requires 319% more than the baseline scenario at \$265 million. This bulk of this latter figure (78%) would be allocated to prevention.¹²² These figures illustrate in concrete terms what “front-loading the investment” means in the context of having an impact on Pakistan’s HIV epidemic.

¹²² p44, **Technical Note on AEM Exercise for Pakistan**, v3.4 Nguyen Thu Anh

5. The Output Strategies

5.1 Overview

The output strategies in the strategic framework are specifically designed to address the critical issues identified in both the consultations that were conducted in support of this strategy revision and the earlier analysis of strategic information (sections 1 and 2). This section gives more detail about the specific approaches of each output strategy and how they help resolve a particular issue.

Outcome 1: Reduced risk behaviours and increased testing uptake among key populations and their partners

Output 1.1 Precision-targeting of high impact HIV prevention services with expanded coverage for key populations	Output Strategy 1.1.1 Expand coverage of community-based combination harm reduction/HIV prevention for PWID
	Output Strategy 1.1.2 Rapidly scale up community-led and community-based prevention programmes for MSM/MSW/HSW/FSW
	Output Strategy 1.1.3 Integrate prevention programme coverage of partners/spouses/family members into targeted key population programming where possible

Output Strategy 1.1.1: Expanding Coverage of Harm Reduction and HIV Prevention for PWID

Pakistan already has an established harm reduction/prevention programming model for PWID. This is predominantly funded through international funding. Its best practice model was used to develop the unit costing for the selected High Impact scenario from the AEM exercise. The intervention components are listed in Annex 2. Whilst domestic funding for programmes for PWID has been allocated in the form of approved PC 1 budgets, the lengthy approval process for PC 1s, and the delays post approval in distributing the funds, have meant that domestically funded programmes for PWID in Sindh have been on hold since July 2014 and in Punjab since July 2016. At present Punjab has started to receive the approved funds and a tendering process for implementation contracts is underway. Sindh has still yet to receive PC 1 funds.

The key issue with regard to this revised strategic approach will be ensuring coverage from the established intervention model in the selected priority cities for PWID. At present 12 out of the selected 28 priority cities for PWID do not have prevention/harm reduction programming. Of these 12, 3 (Faisalabad, Lahore and Sialkot) will be included in domestically funded programmes in

Punjab once they get underway. There is currently a programming gap in the remaining 9 cities – it is a key output requirement of this strategy that this gap be plugged.¹²³

Output Strategy 1.1.2: Scaled Up Prevention for MSM/MSW/HSW/FSW

For all key populations actual prevention programme coverage will be a function of the number of project sites, the number of outreach workers attached to each project site, and the frequency of outreach activities. These factors need to be adjusted according to the relative scale of the target population in a given city i.e. larger cities with larger key populations would have proportionally more project sites, with larger numbers of outreach workers and higher frequencies of outreach activity. Precision targeting requires that we abandon the one-size fits all approach to programme models and adjust the model scale in proportion to the expected yield in any given site.

1. MSM/MSW

With MSM forming the largest of the key population groups in Pakistan and having the second largest number of PLHAs among all the key populations (see Section 2), with the significant growth in HIV prevalence among MSW, and with the low rates of condom use reported by all MSM, but particularly among non-SW MSM, there is an urgent need to scale up prevention programming for this population. The coverage gap, for non-SW MSM in particular, is the largest of all programming gaps (given the estimated population size.)

At present the only programming appears to be funded through the Global Fund regional grant, which comes to an end in 2017. That programme covers only 5 of the 21 cities that are prioritised for MSM in this strategy.¹²⁴ The PC 1 budgets for all provinces contain budget lines for MSW/HSW prevention programming but, as with the PC 1 funds for PWID, programmes have been on hold during the lengthy wait for PC 1 approval and funds disbursement. In all but one of the provinces (Punjab) funds have yet to be disbursed. This means there are currently no domestically funded MSM/MSW programmes. None of the PC 1s contain budgets for programmes for non-SW MSM¹²⁵; domestic funding has yet to recognise the strategic importance of reaching this population.

The key shifts that this strategy requires are a dramatic expansion in programme coverage, new MSM/MSW programming in the 16 cities not currently covered¹²⁶, and a need to move beyond the narrower focus on MSW to consider the larger population of men who interact sexually with this subgroup and with each other. It is important that the experience and capacity of the existing programming supported under the regional Global Fund grant is absorbed and expanded upon by

¹²³ The remaining cities are: Gujranwala, Sargodha, Mandi Bahauddin, Hyderabad, Mianwali, Sheikhupura, Dera Ghazi Khan, Mardan, and Swat. As previously discussed the prioritization of these cities was based on estimates of the numbers of PWID living with HIV in each city. These estimates were based on the IBBS mapping exercise.

¹²⁴ Karachi, Lahore, Hyderabad, Larkana, Rawalpindi

¹²⁵ PC 1 budgets for MSM only target male sex workers. Typically programming for MSW and HSW are combined into a single budget line.

¹²⁶ Sargodha, Rahim Yar Khan, Nawabshah, Kasur, Multan, Muzafarghar, Sheikhupura, Mandi Bahauddin, Okara, Faisalabad, Quetta, Haripur, Mardan, Bahawalpur, Bannu, Peshawar. It should be noted that cities were prioritized based on MSW prevalence rates and PSEs rather than non-SW MSM prevalence rates and PSEs. This is because this data is considered more reliable given that MSW were more successfully sampled by IBBS Round V. It can be reasonably assumed that the distribution of at risk client populations will be broadly similarly distributed.

the national programme beyond 2017. In particular, for this population, CBO-led community based programming will be essential. The challenges of reaching non-SW MSM have already been significantly demonstrated by IBBS Round V's limited success in surveying them. The best chance of reaching out to these men will be by actively involving people who belong to their community networks. Intervention approaches will need to be tailored to the particular physical and virtual spaces that this community uses for sexual networking.

MSW programming needs to pay particular attention to the needs of young MSWs. Almost a quarter of MSW were found to be under 20 (see section 2.7.) This makes it likely that there will be youth-specific dimensions to their vulnerability that programming needs to be tailored to address. The active involvement of young MSM/MSWs in programming will help with the identification of these needs.

2. HSW

This population has the highest prevalence rate among the key populations for whom sexual transmission predominates and, like MSW, their condom use rates are low. Their clientele base will come from the population of non-SW MSM. Current programming, again funded through the regional Global Fund grant, is limited to Lahore and Larkana. As with MSW there are budget lines for HSW programming in the PC 1s but currently no active domestically funded programmes. That means that 19 of the 21 prioritised cities for HSW currently have no programmes. The points made with regard to MSM/MSW about the strategic importance of retaining the programming experience and capacity of the current regional Global Fund programmes after they come to an end, and of a programming model that is CBO-led and community based hold for this key population too. There may be opportunities to integrate MSW/MSM and HSW programming in priority cities that overlap for these populations, but care needs to be taken to adapt programming to the respective needs of each group. In particular programmes need to be mindful of the gender differences between the respective populations and the extent to which these create particular vulnerabilities that need to be addressed.

3. FSW

The data on female sex workers is contradictory; on the one hand they appear to have the fastest growing HIV prevalence rate (section 2.2), but on the other hand they have much higher rates of reported condom use at last paid vaginal sex (section 2.4.) Their current prevalence rate is, however, the lowest among the key populations meaning that, despite their higher population size, they account for around the same numbers of PLHA as the HSW and MSW populations. Current programming coverage is understood to be extremely limited; the only province that currently has access to its PC 1 budget for FSW programming is Punjab. Punjab has ambitious plans for expansive programme coverage for all key populations other than Non-SW MSM. For FSW, this is assumed to be inclusive of the four cities in Punjab (Lahore, Sheikhupura, Faisalabad, and Multan)

included among the 11 cities prioritised for FSW in this strategy. The remaining 7 cities in the priority city list¹²⁷ do not currently have any active programming, though five of these are earmarked for coverage in Sindh's PC 1 when the funds become available. As with the prevention programmes for MSM/MSW/HSW the intervention model for this population needs to be community-based and with the active participation of the target community to ensure responsiveness to community needs and optimal targeting. As with MSW there is also a need for programming that addresses the particular vulnerabilities of young FSW (section 2.7.)

Output Strategy 1.1.3: Integrated Prevention for Key Population Spouses

Pakistan already has a programme model for providing prevention services to spouses of PWID. This is currently funded by Global Fund. It is well aligned with the recommendations from UNICEF with regard to the integration of spousal prevention into service delivery programmes for PWID (section 2.6). The model has robust protocols for written referral consent from PWIDs to ensure no breach of client confidentiality. The current programme reports a proactive demand for these services from some male clients. Programme components include risk assessment, counselling and information, HTC (for spouses and children), and referrals to treatment centres and PPTCT services as required. Since integration is already there, the main development implied by this strategy revision would be the need to scale up these services in parallel with the scale up of programming for PWID with a particular focus on priority cities.

Our analysis of the strategic information revealed that the largest proportion of key population spouses are likely to be married to non-SW MSM (section 2.6). It should not be assumed that the integrated programming model used for spouses of PWID would work for this population also. Indeed, there are disclosure issues (around sexual orientation) that may make this impracticable. Efforts need to be made to assess the prospects of accessing spouses of MSM through MSM prevention programming (rather than simply assuming it will not work.) Documenting efforts made through MSM prevention programmes to gain consent for spousal referral from MSM testing positive would be a first step towards determining viable programming options. As with programmes for spouses of PWID, protocols for securing written consent for spousal referral from MSM clients need to be in place. If, after assessment, it is deemed impractical to integrate spousal prevention into MSM programming (due to very low rates of referral consent from married positive MSM,) then other programming options for protecting spouses need to be considered (see output strategy 2.3.1 below.)

Output 1.2 A ramped up investment in	Output Strategy 1.2.1 Fully integrate outreach testing services into expanded frontline prevention programmes for key populations
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¹²⁷ Karachi, Sukkur, Larkana, Hyderabad, Nawabshah, Peshawar, Quetta.

community-based HTC for all key populations (coverage aligned with epidemic burden)	Output Strategy 1.2.2 Develop new protocols for community-based testing that ensure complementarity between frontline screening and clinic based confirmation and client tracking across the divide
	Output Strategy 1.2.3 Integrate HTC for key population partners/spouses/family members into targeted key population programming where possible

Output Strategy 1.2.1: Integrating Testing into Key Population Prevention Programmes

Given that the strategy proposes integrating HTC into outreach prevention programmes for key populations the issues around coverage and scale up will be the same as for the output strategies under output 1.1 (above) and will not be discussed again here. Pakistan already has programming models of integrated HTC services for key populations. Those that are currently known to be operating are funded by the national and regional Global Fund grants; the former for PWID, the latter for MSM/MSW/HSW. These models include both street-based and centre-based HTC services. Some of these models include integrated STI services. STI service integration will be especially important for populations whose primary mode of transmission is sexual.

It is important that models for community-based HTC are adapted to the particular populations they are intended to reach. Thus decisions about street-based, outreach venue-based or centre-based models, or mobile versus static testing services, need to be made on the basis of intelligence from community members about what delivery modes are likely to reach the highest numbers of people. This means that a single model for all key populations is unlikely to work.

The core assumptions of the concept of the community-based HTC that is being proposed are as follows:

- It is delivered through CBOs with experience working with the target population and with active participation from members of the target population in service delivery.
- It is delivered in settings that are close to and convenient for community members; location and delivery mode is determined based on community knowledge. For example, services for sex workers need to be delivered at times that take into consideration the population's working hours.
- It is delivered in a non-judgemental and non-stigmatising way that respects client confidentiality. Uptake is likely to be highly sensitive to the extent to which the service is perceived to be sympathetic to, and understanding of, the target community's health needs.
- It is delivered on the basis of informed consent; the decision to get tested belongs to the client.

It is to be anticipated that a rapid scale up of community-based testing will require training and capacity building for peer outreach workers. In this regard the most efficient way to deliver this would be to make full use of the existing in-country experience and capacity in delivering such services (to PWID and MSM/MSW/HSW) and to facilitate horizontal transfer of capacity between programmes targeting different key populations.

It should be noted that the yield of positive cases from testing services for different key populations will vary according to population sizes and prevalence levels. Higher yields will come from populations with higher prevalence levels; thus expanded HTC coverage for PWID is likely to produce the greatest number of new cases. In contrast the yield of testing programmes among FSW is likely to be significantly lower than programmes for MSW and HSW in terms of the numbers that need to be tested in order to identify a single positive case.

Output Strategy 1.2.2: New Protocols for Community-Based Testing

There are a couple of issues that arise from moving HTC services into community-based delivery models. These need to be addressed in order to ensure cost efficiency and effective programming:

Protocols for screening and confirmatory testing need to be developed to take account of the fact that the first point of testing is in non-clinic settings. It would be wasteful if screening procedures are duplicated between the testing done in community settings and the testing done in clinics. This requires a collaborative perspective that sees the testing services delivered by CBOs as part of the same continuum of services as those delivered in clinic settings. The National AIDS Control Programme should lead on developing testing protocols that adopt an integrative approach to community and clinic based testing. Once developed these protocols will need to be disseminated and clinic and community workers trained in the use of them.

The protocols developed should take account of the need to track clients across the cascade from community-based testing to registration at a clinic for treatment. At present a person is only registered as HIV positive when they are tested in a clinic setting. This means the national system is unable to assess, monitor and respond to any cascade leakage that occurs between community-based testing and clinic registration. A rapid scale up of community based HTC will make it imperative that this blind spot in the national M&E system is removed and the best way to resolve it will be to address reporting requirements in the protocols for community-based HTC.

Output Strategy 1.2.3: Testing for Key Population Spouses

The critical issues for this output strategy are largely covered under the narrative for output strategy 1.1.3 above. With particular regard to the PPTCT programme there is a need for strong referral linkages for spouses who are pregnant or who are planning pregnancy. Spousal testing may present different issues in terms of where the testing actually takes place. If the HTC for key populations members is taking place in spaces/settings that belong to those communities, or are

specifically tailored to those communities, they will not be appropriate locations for spousal testing. Options for spousal testing would likely include home settings, mobile units or accompanied referrals to existing clinic-based services.

Output 1.3 Selective prevention and testing programme coverage of vulnerable populations	Output Strategy 1.3.1 Establish and expand HIV services across priority prisons
	Output Strategy 1.3.2 Develop pre-departure prevention education for intending migrant workers, and a referral system to HTC, ART and PPTCT for returning migrants and their families in priority cities and peripheries in step-wise, phased approach

Output Strategy 1.3.1: Testing and Prevention Programming for Prisoners

Programming for prisoners was included in the original version of PAS III and also in the PC 1s for all provinces. The previously mentioned delays in approval and disbursement of domestic funding have meant that little of what was proposed in the strategy has actually taken place. In Punjab, the only province with disbursed PC 1 funding, testing for prisoners is confined to screening only.

This revised version of PAS III is not proposing anything different or additional to what was proposed in the original version. Discussion of key implementation strategies for prisoners can be found on page 51 of the original version of PAS III. The main critical issue for this work appears to be that of unlocking domestic funding flows so that programming can commence.

Output Strategy 1.3.2: Education and Referrals for Migrant Workers

As with prisoners, programming for migrant workers was included in the original version of PAS III. The province for which HIV infection among migrant workers is a particularly pertinent issue, Khyber Pakhtunkhwa, has costed interventions for migrant workers into its PC 1.

As with output strategy 1.3.1 this revised version of PAS III is not proposing anything different or additional to the programming for migrants than what was proposed in the original version. Discussion of key implementation strategies for migrant workers can be found on pages 50-51 of PAS III. The main critical issue for this work is the same as for prisoners: unlocking domestic funding flows so that programming can commence.

Outcome 2: Increased ART initiation and retention, with key populations and their spouses/partners proportionally covered

Output 2.1 Removal of key treatment initiation	Output Strategy 2.1.1 Scale up comprehensive treatment preparedness services for PWID.
	Output Strategy 2.1.2

barriers for key populations and their partners/spouses	A combined OST/ART treatment initiation programme.
	Output Strategy 2.1.3 Removed CD4 treatment eligibility criteria in line with WHO guidance and scale up “treatment for all” in a phased approach.
	Output Strategy 2.1.4 Address critical supply-side barriers chief among which are: <ul style="list-style-type: none"> • Travel distance • Limited opening hours • Complex registration procedures • Attitude of health care workers • Weak confidentiality procedures
	Output Strategy 2.1.5 Scale-up PPTCT services to provide equitable access to vulnerable and marginalized populations.

Output Strategy 2.1.1: Treatment Preparedness Support for PWID

Addressing barriers to treatment uptake among PWID is the single most important critical issue with regard to the goal of expanding treatment coverage. PWID account for the largest numbers of PLHA (section 2.3) but only 6% of them are on treatment (section 2.5). Currently treatment access for PWID is severely constrained by two significant factors: the limited supply of treatment preparedness support services and the current CD4 eligibility criteria for treatment. The latter is discussed under output strategy 2.1.3. This section considers treatment preparedness support.

Treatment preparedness support is defined as services that stabilise an HIV positive PWID’s lifestyle to the extent that (a) that individual is motivated to pursue treatment for HIV and (b) clinicians at treatment centres feel confident of the possibility of successful treatment outcomes with respect to that patient. It should be stressed that the intervention most likely to simultaneously address weak treatment demand and reluctant treatment supply for this population is OST. This intervention is discussed below under output strategy 2.1.2.

In the absence of OST, treatment preparedness support for PWID comes in the form of detoxification services. This is the main approach to drug rehabilitation in Pakistan. However, service quality is highly variable and can, at the worse extreme, involve involuntary incarceration and other inhumane approaches. Private services predominate and are beyond the means of most drug users. A small number of government facilities are available without charge for enrolment though they do require payment for drugs and other incidentals. The demand (among PWID and their family members) for affordable quality drug rehabilitation significantly outstrips the supply. Clinicians in HIV treatment centres have also cited the lack of availability of such services as a problem.

It has been noted that a key factor in the significant increase in treatment uptake among PWID that occurred in 2014 was the opening of an ART Adherence Unit run by Global Fund PR Nai Zindagi (section 2.5). This 8 week residential service combines detoxification support with treatment initiation support for HIV positive drug users who have registered for treatment at ART treatment centres. It is the only detoxification service that is exclusively targeted to HIV positive drug users and that integrates ART initiation and adherence support. This service has become an important conduit for PWID access to treatment. It is, however, considered by some as a relatively high-cost boutique service that cannot be affordably taken to scale. It is also available only in one location in the country, which means significant travel distances for most PWID.

This presents a strategic dilemma. In the absence of OST such services are clearly needed to address the treatment initiation problem for PWID. This need will be all the more pressing as the country phases in Treatment for All by removing the CD4 eligibility criteria for treatment. There is an imminent risk of a treatment access bottleneck for PWID if the limited supply of treatment preparedness support services is not addressed. The most cost effective way to address this bottleneck would be to expand the capacity of the existing AAU facility in tandem with the phasing in of Treatment for All for PWID.¹²⁸

Output Strategy 2.1.2: OST

Given that PWID form the largest key population segment of PLHA in Pakistan (section 2.5), that they continue to account for the largest number of new infections, that they are significantly underrepresented in the treatment programme, and that the treatment centres have struggled to address the particular challenges of bringing this population into treatment and retaining them, OST stands as the single most important potential game-changer intervention for the national HIV programme. We have already referenced the substantive evidence that for HIV positive PWID OST can significantly increase recruitment into treatment, increase ART adherence (twofold), increase viral suppression, and reduce ART discontinuation.

Unfortunately OST remains a remote possibility in Pakistan due to strong opposition from the Ministry of Narcotics. The original version of PAS III included a strategy for a phased introduction of OST. None of the milestones in this plan for a phased introduction have been reached. Whilst Buprenorphine is available in Pakistan it has not been licensed at the dosages required for OST.¹²⁹ The sticking point has been the need for approval of the required dosages from the Ministry of Narcotics.

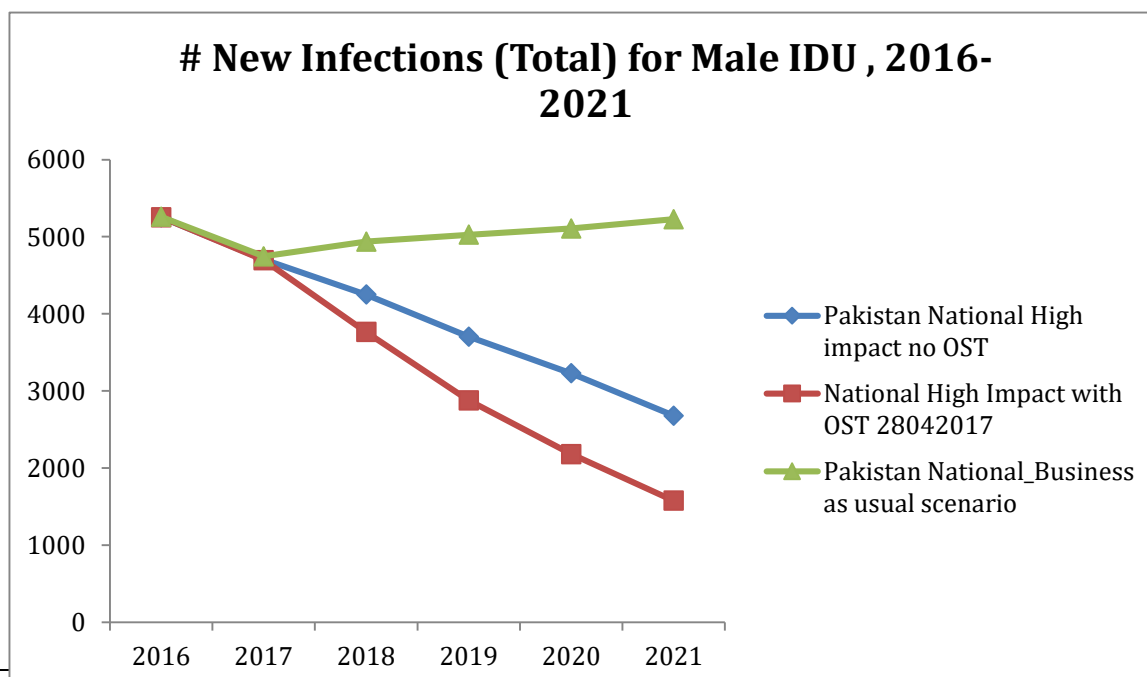
¹²⁸This is as opposed to opening new facilities. Expanding capacity by opening new facilities will make the service more accessible for PWID in other parts of the country but will incur significant start up costs. Expanding the existing facility could create economies of scale. Any such expansion would need to be carefully coordinated with the phased introduction of treatment of all to ensure that supply meets demand.

¹²⁹ Currently the drug is available in Pakistan in 0.2mg oral formulation and 0.3mg injectable formulation. OST requires a dosages of 8-16mg. This would require the registration of dosages in the range of 4-8mg.

The National AIDS Control Programme is currently in discussions with WHO and the Drug Regulatory Authority of Pakistan (DRAP), about the procedures for getting Buprenorphine registered in the dosages required for OST. A draft registration roadmap has been drawn up with the acknowledgement that Ministry of Narcotic approval is required for production, and that Ministry of Narcotic's concerns about the drug's availability in higher dosages should be taken very seriously and addressed both with scientific evidence on the potential impact of the drug in controlling Pakistan's HIV epidemic, and appropriate safeguards for its use.

This strategy has been cautiously designed to include a small scale OST programme that commences in two cities in 2019. The reason for the caution is the high risk of failure due to non-approval of drug production in the required dosages.¹³⁰ This small scale programme, should it actually occur, would not be a pilot whose further scale up is then dependent on the drug registration issue being resolved – there are significant ethical issues around putting PWID on short-term OST when the prospect of continuation is both uncertain and remote. Rather, it would commence only if the required drug approval is secured. The programme has been costed into the strategy on the assumption that it commences in Karachi and Lahore and reaches annually incremental proportions of the populations of drug users in those cities (2%, 5%, 7%.) These percentages were based on a model developed for the AEM exercise.

As discussed in the previous section the AEM exercise included a version of the selected High Impact intervention scenario that assumed the availability of OST. The graph below illustrates the potential impact on the numbers of new HIV infections among male PWID:



¹³⁰ In this regard it should be noted (a) that a previous pilot of OST has been conducted in Pakistan and despite being deemed a success the drug registration issue prevented it from being continued and taken to scale, (b) that OST has been programmed into a previous Global Fund grant proposal resulting in implementation failure due to the drug registration issue and (c), as mentioned above, a strategy for its implementation at scale has previously been drawn up but has not resulted in moving the issue any further towards actual implementation.

It can be seen that the addition of OST to the programme portfolio results in significantly fewer new infections among male PWID. It should be noted however, that the small scale OST intervention proposed in this strategy is not the same as the High Impact scenario with OST developed for AEM. That scenario assumes an earlier implementation of OST at a larger scale. It was not selected for inclusion in the strategy due to the high risk of implementation failure discussed above.

Output Strategy 2.1.3: Treatment for All

The current CD4 eligibility criteria require a CD4 count of 500 or below for treatment access. This has resulted in a virtual cascade ‘waiting room’ of PLHA who have registered with treatment centres but who are not yet eligible for it. The pre-treatment phase has previously been identified as a significant cascade dropout point. In cases where HTC is already delivered through frontline prevention programmes that also provide CD4 testing (such as for PWID,) clients testing positive are often not brought to treatment centres until their CD4 tests reveal them to be eligible.¹³¹ This means that they are not registered in the national database as a person who has tested positive.

The National AIDS Control Programme has already initiated a process of revising treatment guidelines to move towards treatment for all. Current thinking is that a phased approach is required to ensure that treatment supply (availability of drugs and patient capacity of treatment centres) is able to accommodate all patients deemed eligible by the revision in the guidelines. The AEM intervention scenario selected for this strategy, and the corresponding treatment targets, are based on the assumption that the phased approach to Treatment for All commences in 2018.

Readying the system for treatment for all will entail ensuring sufficient supplies of medicines, ensuring sufficient patient capacity at treatment centres, and, for PWID, ensuring an adequate supply of treatment preparedness services as discussed under output strategy 2.1.1.¹³² There will likely be a need to decentralise treatment maintenance services for stabilised patients out to district level in order to reduce the case burden for treatment centres (see output strategy 2.1.4 below.)¹³³

Output Strategy 2.1.4: Addressing Supply Side Barriers

The most commonly referenced treatment access challenge in consultations conducted for this strategy revision were the long distances that some have to travel to get to treatment centres. This, combined with the fact that treatment centres have limited opening hours, can make the logistics of accessing treatment particularly challenging for key populations many of whom have limited

¹³¹ The rationale for this has to do with the particular life circumstances of PWID; preparing them for treatment and motivating them to travel the often considerable distances to a clinic to access it is challenging enough. If a programme were to support them through a detoxification process and accompany them to a treatment centre, only for them to be turned away due to non-eligibility, there is a risk that this client will be deterred from seeking access to treatment again in future.

¹³² Failure to address this latter point would result in a significant treatment access bottleneck for PWID. There is a double tourniquet constraining the flow of PWID into treatment, removing only one will simply increase the pressure on the other.

¹³³ Research has found lower attrition rates in partially decentralized models where antiretrovirals were started in a hospital and continued in a health centre. See, **Decentralising HIV Treatment in Lower and Middle-Income Countries – Review**, Kredo et al, 2013 *The Cochrane Library* 2013, Issue 6

resources. Previous plans to open satellite clinics that were programmed into the last Global Fund grant have floundered. Some provinces have reported plans to open new treatment centres though in the case of Sindh this would be dependent on the PC 1 funds being disbursed.

The revised strategy's approach of prioritizing selected cities for prevention programme expansion for each key population means that we can anticipate new cases being identified in those cities. Addressing treatment accessibility from those particular cities will become a priority. At present 12 of the 35 prioritised cities have treatment centres. A further 6 prioritised cities have treatment centres planned. Current one-way travel times for prioritized cities without treatment centres ranges from one hour to almost 8 hours.¹³⁴ Once the new planned clinics open the maximum one-way travel time from a priority city to a treatment centre will be around 5 hours and the average one-way intercity trip time will be around one and a half hours. The nearer the treatment centres are to the priority cities the less pressing the issue of restricted treatment centre opening hours¹³⁵ is likely to be for people coming from those cities – because it will be easier to get to the treatment centre before it closes.

Whilst opening new facilities nearer to priority cities can go some way to addressing the distance barrier it can take considerable time and resources. Another option currently under discussion is to devolve treatment maintenance services for patients who are stabilised on treatment to the district level. Current research suggests no evidence of a deterioration of health outcomes for a range of decentralised treatment models and some evidence of a reduction in attrition.¹³⁶ However, the introduction of a decentralised model in Pakistan would need to take account of the fact that a significant number of those on treatment would be PWID, who will have special needs in relation to treatment maintenance support.

The decentralization option currently being considered in Pakistan is partial decentralisation. This would mean that treatment initiation would remain at treatment centres, which are based in tertiary hospitals. Treatment maintenance for patients that are considered stable and adherent would be devolved to district HQ hospitals. These would be selected on the basis of proximity to locations with relatively high patient burden and long travel distances to the nearest clinic, and with reference to the cities that have been prioritized for programme scale up in this strategy. The model would necessitate (a) additional training for health care workers in the selected district HQ hospitals, (b) an extension of the ARV supply chain down to the district level and (c) an extension of the treatment monitoring system so that it is able to track retention at the district HQ hospital level.

The outstanding issues of judgemental attitudes towards people from key populations among health

¹³⁴ Swat to HMC Peshawar

¹³⁵ Standard treatment centre operating hours are from 9am to 2pm, though there were reports during our consultations that sometimes the clinicians have left by 1pm.

¹³⁶ See, **Decentralising HIV Treatment in Lower and Middle-Income Countries – Review**, Kredo et al, 2013 *The Cochrane Library* 2013, Issue 6

care workers, and breaches in confidentiality procedures, suggest the need for further health care worker training. A recent technical note from the Global Fund states that programmes to train health care workers on human rights and medical ethics can “help to increase access and uptake by those in need of HIV prevention and treatment where health care workers understand their duty to treat in a non-discriminatory fashion, drop stigmatizing attitudes and behaviours, and understand and implement informed consent and confidentiality.”¹³⁷ Further training of health care workers is clearly needed and this will also need to cover the workers in the district HQ hospitals involved in devolved treatment maintenance support and health care workers providing MNCH services (see output strategy 2.1.5.)

Output Strategy 2.1.5: Equitable PPTCT

Low rates of treatment access for pregnant women living with HIV are attributable to most such women not knowing their HIV status (section 2.6). The previously discussed UNICEF evaluation of PPTCT services identified the need to integrate testing programmes for spouses into prevention programmes targeted key populations in order to increase the numbers of positive pregnant women identified and covered by PPTCT services (see output strategy 1.2.3). The same evaluation stressed the need for training for health care workers working in MNCH to sensitize them to issues around PPTCT. Some of this training will include topics covered by the trainings proposed under output strategy 2.1.4 on human rights and medical ethics related to HIV. Efficiencies will be achieved an integrated approach is adopted for the delivery of such trainings.

Output 2.2 Intensified treatment adherence support differentiated by key population	Output Strategy 2.2.1 Implement intensified case management models, tailored to particular key populations, which provide adherence support across the clinic-community divide. PWID in treatment will need particular attention.
	Output Strategy 2.2.2 Task-shift adherence support programmes with a new focus on delivery by community workers in community settings. Active involvement of key populations/partners/spouses as appropriate.
	Output Strategy 2.2.3 Address needs for care and support, including social protection and nutrition support, within the framework of a coherent adherence support programme.

Output Strategies 2.2.1 and 2.2.2: Case Management Models and Community-Based Adherence Support

Given the relatively high attrition rate of people on ARV treatment in Pakistan there is a need to develop stronger adherence support models. This is particularly so for PWID who initiate treatment.

¹³⁷ p9, HIV, Human Rights and Gender Equality, Technical Brief, The Global Fund, April 2017

There are existing programme models which can be scaled up. Nai Zindagi uses Community Mobilisers for regular follow up with clients on treatment to promote adherence. A few points need to be made regarding the logistics of strengthening adherence support systems:

- The development of standardised case management protocols that are used by both treatment centres and community based adherence support services would help ensure a common understanding of the level, type and frequency of support required to promote adherence for particular key populations.
- Protocols for adherence support for PWID need to be designed with reference to the fact that opioid dependence is being managed concurrently with HIV treatment. Ideally the protocol should aim to maintain treatment adherence across any cycles of relapse to drug use.
- A robust adherence support model requires a strong collaboration and coordination between clinic and community case workers. Good working relationships and communication between treatment centres and community-based programming will likely support better treatment outcomes.
- The active involvement of family members in adherence support is ideal but limiting treatment access to those that have such support would be unnecessarily restrictive. Many key population members may not have access to family support and/or may not be willing to disclose their HIV status to family members. The system needs to be flexible enough to allow trained community workers to substitute for family members.
- Adherence support is resource intensive and volume will be limited by caseload capacity. Scale up will necessitate an investment in training and deploying more community based adherence supporters.
- Community based adherence support services should seek to actively involve community workers from among the key populations and PLHA.

Given that it is being proposed that prevention, testing and adherence support are all delivered through community-based programming models it makes sense that these should, where possible, be the same programmes. Thus a CBO/NGO providing testing services to a key population should also be responsible for providing adherence support services to those that test positive. This will ensure that there is a continuum of care through from prevention and on into treatment, care and support.

Output Strategy 2.2.3: Care and Support and Social Protection

Currently the care and support programme in Pakistan has involved a centre-based approach with a relatively low client base. A cost effectiveness analysis conducted by NACP indicated the model has high average unit costs due to the adoption of a fixed implementation model, which is not scaled proportionally to client load. Moreover, APLHIV have reported client dissatisfaction with

some CHBC services that are often held up due to late disbursements. To address this a new care and support model is being proposed which retains the core services of the original model but dispenses with the overhead costs. This care and support package would include food support packages, transportation support for those with long distances to travel to get to treatment centres and support for purchasing general medicines (i.e. medicines not provided free of charge through the treatment centres such as might be needed to treat OIs.) The new model would have the following key features:

- Non centre-based but linked instead to treatment centres
- Active community involvement with APLHIV being part of the implementation model.
- Geared towards incentivising treatment adherence
- Non cash-based; i.e. use of voucher systems and distribution through contracted providers.
- For key populations, care and support services could be integrated into community-based programming for prevention.

Output 2.3 New innovations to capitalise on the full prevention benefit of treatment.	Output Strategy 2.3.1 Pilot PrEP for selected key population(s) with a view to reducing sexual transmission
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Output Strategy 2.3.1: Pilot PrEP Project

The “game-changing” potential of PrEP was discussed in the first section of this strategy revision (section 1). Given that HIV prevalence rates are now increasing at a faster rate among populations whose primary mode of transmission is sexual (section 2.2), that MSM transmission has the potential to become the key driver of the epidemic (section 4.2), that historically the AIDS programme in Pakistan has struggled to identify and reach the larger non-sex worker MSM population¹³⁸, and that reaching spouses of positive MSM with prevention programming is likely to be highly challenging due to disclosure and confidentiality issues, there is a strong rationale for a PrEP programme primarily targeted at male sex workers. There is already anecdotal evidence¹³⁹ of a pre-existing demand for PrEP among this population. An intervention that succeeded in reducing infection rates among this population has the potential to reduce onward transmission into the larger MSM population and on to their spouses.

This output strategy is envisioned as a three-year PrEP pilot project commencing in 2019. It has been costed into the strategy budget on the assumption that it is trialled in one city, through an existing MSM programme with an established clientele base. Numbers covered would increase

¹³⁸ This is illustrated both by the fact that MSW constituted 85% of the MSM that Round V IBBS was able to survey and by programmatic data reported by the Dostana MSM group in Lahore; in 2016 MSW represented 75% of MSM represented of the clients registered by the programme.

¹³⁹ Reported by Dostana in an e mail communication dated 28th April 2017.

from 500 in year 1 to 1500 in year 3. There would be a built in research component to assess intervention effectiveness and the feasibility of further scale up.

Outcome 3: Environment for effective AIDS response is enabled

Given that the outputs and output strategies for Outcome 3 remain largely the same as in the original version of PAS III the remaining narrative below focuses only on approaches and issues that are newly required or brought to the fore as a result of the strategy revision. The narrative on Outcome 3 from the original version of PAS III is attached in Annex 4. The narrative below should therefore be considered as supplemental to what was originally proposed.

Output 3.1 Enhanced use of strategic information to monitor HIV response coverage, quality and impact.	Output Strategy 3.1.1 Monitoring & Evaluation system strengthened for improved programme implementation
	Output Strategy 3.1.2 Support and disseminate HIV-related substantive and operational research.

Output Strategy 3.1.1: M&E Systems Strengthening

M&E systems strengthening was part of the original version of PAS III. A number of outstanding M&E issues are brought to the fore by this revision of the strategic approach. They are based both on the requirements of the strategy and the experience of developing it. These are as follows:

1. **IBBS:** Future rounds should provide a more comprehensive range of weighted data. Previous rounds have only weighted the results for national level HIV prevalence. Given that IBBS data is used to develop both provincial and national level strategies, weighted prevalence results at provincial level are required too. Moreover, aside from prevalence, weighted data, with national and provincial disaggregation, is required for key behavioural and programmatic coverage indicators – especially those used to track progress towards achieving the goals of this strategy (see section 6.) Further points for future rounds of IBBS would be the need to improve techniques for sampling among non-SW MSM, and the need to schedule stakeholder consultations on mapping results before these are finalised. Consensus building should be an integral part of the process.
2. **Monitoring Case Detection in Community-Based HTC:** The shift of testing into community settings implies a need to monitor the numbers testing positive in community-based HTC. It is important that the systems can track the movement of those who test positive into treatment care and support. This will be important for addressing cascade leakage between community-based HTC and treatment centres. The current system does not allow for this.

3. **Viral Load Monitoring:** Currently the system lacks the capacity to track viral load suppression among most of those on treatment. It is not possible at present to judge progress towards achieving the 3rd of the three 90s.
4. **Monitoring Retention and Attrition:** The current system does not allow for attrition rates to be monitored and analysed by key population. Much that is said about the comparative attrition rates of different key populations is anecdotal or speculative. It would be better if this could be backed up with hard data from the MIS.
5. **The Implications of Piloting PrEP:** This innovation requires the system to be able to distinguish between people on treatment who are HIV positive and those on treatment who are HIV negative. Otherwise there is a significant risk that treatment data will be misinterpreted.

Output Strategy 3.1.2: Operational Research

In addition to what was originally proposed under this output strategy in PAS III the revision requires two particular pieces of operational research regarding the proposed PrEP pilot (output strategy 2.3.1 above) and the OST project. Given that these are new pieces of programming in the Pakistan context it would be a valuable exercise to build in an evaluation component prior to project initiation. The research could be conducted by a local academic institution and should help with the early identification of implementation issues and some assessment of the project's impact.

Output 3.2 Increased multi-sectoral coordination at Federal and Provincial Levels.	Output Strategy 3.2.1 Implement targeted and sustained advocacy actions for policy reform, HIV integration and addressing stigma and discrimination.
	Output Strategy 3.2.2 Enhanced participation of multi-sectoral partners to increase service provision and uptake.
	Output Strategy 3.2.3 Capacity building around models for community-based HTC delivery.

Output Strategy 3.2.1: Advocacy and Policy Reform

Two critical policy issues require particular attention. The first is the registration of Buprenorphine in the dosages required for OST. As previously discussed, this has the potential to be the AIDS programme's game-changer. There is clearly support for OST within the health sector. It is stakeholders outside the sector that need to be convinced both of the benefits of OST to the health of the nation and of the fact that distribution of the drug can be adequately safeguarded.

A second critical policy issue is around the domestic funding mechanism. Currently domestic funding for HIV programmes comes in the form of project funding through the Planning Commission of the Government of Pakistan. The application, approval and disbursement process is very lengthy

and unpredictable with the consequence that programmes can stop for significant periods of time. Currently domestically funded programmes have been on hold for at least a year and in some cases longer. The only province which currently has disbursement on its approved PC 1 for HIV is Punjab.

These bouts of lengthy domestic programme downtime can have serious implications for the future direction of the epidemic. The recently detected surges in prevalence rates among sex workers (male and female) may well be evidence of this. Control of the country's HIV epidemic and the future long-term sustainability of Pakistan's AIDS programme will be dependent on resolving the intermittency of domestic funding streams.

Output Strategy 3.2.2: Participation of Multi-Sectoral Partners

Key implementation strategies for this output are the same as for the original version of PAS III. The relevant sections are attached in Annex 4.

Output Strategy 3.2.3: Capacity Building for Community-Based HTC

The implementation and scale up of community-based HTC for key populations is a key new feature of this revision of PAS III. Given the scale ambitions of the programme, and the fact that there has historically been relatively limited involvement of key population CBOs, this is a significant new orientation for the national AIDS programme. There will undoubtedly be capacity-building needs around both working with key population CBOs, and designing and implementing suitable programme models for each group. It should be noted that one of the most efficient ways to address this will be to capitalise on the experience and capacity of existing models of community-based HTC that operate under the national and regional Global Fund grants. The approach should be to affect a horizontal transfer of skills while tailoring the implementation models to the specific community contexts of the key population to be targeted. The active involvement of key population members in programme design will be critical.

Output 3.3 Increased sustainability of the response.	Output Strategy 3.3.1 Reduce costs of the HIV response through mainstreaming and efficiency improvements.
	Output Strategy 3.3.2 Increase domestic resource allocation and mobilise and align additional external resources for sustainability of the Response.
	Output Strategy 3.3.3 Improve Management and Implementation Arrangements.

Output Strategy 3.3.1: Cost Reduction and Efficiency

In addition to what was already detailed in the original version of PAS III the key cost reduction and efficiency gain measures entailed in this revision of PAS III are as follows:

- Efficiency gains from strengthening the focus on key populations
- Efficiency gains from prioritising programme scale up for cities with higher estimated numbers of people living with HIV among each key population
- Cost reduction by task shifting HTC into community settings delivered by community workers
- Improved programme effectiveness and cost efficiency by making full use of CBOs in programme implementation for key populations
- Improved cost effectiveness of care and support through streamlining the model and cutting out overhead costs
- Improved efficiency for PPTCT programming by integrating efforts to reach spouses of key populations into prevention programming for those populations.

Output Strategy 3.3.2: Domestic Resource Allocation

As discussed under output strategy 3.2.1, the issue with domestic funding is not so much the amounts allocated as the distribution mechanism and approval process. The most recent round of PC 1 funding allocation has taken a couple of years to complete and three out of four provinces have yet to receive funds. This causes domestically funded programmes to stall for indefinite periods of time which risks losing control over the course of the epidemic. Unless a way is found to sustain a consistent flow of domestic funding, without interruption, the national programme is unlikely to achieve sustainability.

Output Strategy 3.3.3: Management and Implementation Arrangements

The strength of national programme coordination, and the integrity and completeness of national programme data, especially for treatment, is dependent on a strong collaboration and communication between national and provincial AIDS Control Programmes. Pakistan's highly devolved healthcare system can put a strain on these relationships with a potentially significant impact on the effectiveness of implementation arrangements. If not managed correctly there is a particularly significant risk to the implementation of internationally funded programmes. Given the extent to which the country is currently dependent on international funding to resource its AIDS programme this risk needs to be carefully managed.

Additional to what was originally proposed in PAS III this revision requires the increased involvement of CBOs in prevention and HTC programme implementation. This is to improve programme targeting and coverage and increase HTC uptake and case detection. As well as contributing to an increase in programme efficiency this new implementation arrangement also has the potential to reduce unit costs as resources are shifted from clinic settings to community settings and tasks are shifted from health care workers to community workers.

6. Strategy Targets

Target setting for the national strategy was conducted in conjunction with the AEM modelling exercise in April 2017. Baselines were derived where possible from IBBS data, and in some cases (needle distribution, spousal programming and treatment coverage) from programmatic data. The 2021 targets were set with reference to the High Impact (no OST) intervention scenario that was selected by the participants of the AEM workshop. There was a conscious decision to try and set targets that were both ambitious but achievable, given that the original PAS III targets had not been achieved. Interim annual targets were adjusted in relation to baseline in order to make their achievement more likely.

Treatment targets were set in relation to testing targets with assumptions about the proportions of people testing positive, the proportions of those testing positive making it into treatment, and the proportions of those entering treatment that are from key populations. There are also assumptions about treatment attrition and that treatment attrition rates will decline over the course of the strategic timeframe.

Target setting was bottom up from the provincial level targets to the national targets. The latter are a sum of the targets set in the four provincial strategies. Indicators for prevention and treatment were selected on the basis of being used by existing programmes largely for Global Fund reporting. This was so as not to increase the burden on monitoring and evaluation systems. Coverage rates are based on the population size estimates derived from IBBS Round V.

Targets for the national strategy are summarized in the matrix overleaf.

National Targets for PAS III Revision 2017

Outcome 1: Reduced risk behaviours and increased testing uptake among key populations and their partners		Indicators	Baseline (IBBS V/MIS)	Targets				
				2017	2018	2019	2020	2021
Output 1.1 Precision-targeting of high impact HIV prevention services with expanded coverage for key populations	Output Strategy 1.1.1 Expand coverage of community-based combination harm reduction/HIV prevention for PWID	# Needles and syringes distributed per PWID per year by needle and syringe programs ^[1]	51	97	147	197	200	200
		% PWID reached with HIV prevention programmes – (NSEP & Testing) in the last 12 months	18%	29%	37%	44%	51%	58%
		% PWID reporting the use of sterile injecting equipment the last time they injected drugs	73%	79%	84%	84%	85%	85%
	Output Strategy 1.1.2 Rapidly scale up community-led and community-based prevention programmes for MSM/MSW/HSW/FSW	% Non-SW MSM reached with HIV prevention programmes – (condoms & testing) in the last 12 months	4%	9%	14%	19%	25%	30%
		% Non-SW MSM reporting the use of a condom with their most recent partner	13%	20%	30%	40%	50%	60%
		% MSW reached with HIV prevention programmes - (condoms & testing) in the last 12 months	15%	25%	34%	43%	53%	63%
		% MSW reporting the use of a condom with their most recent client	26%	31%	41%	49%	55%	61%
		% HSW reached with HIV prevention programmes - (condoms & testing) in the last 12 months	17%	25%	35%	44%	52%	62%
		% HSW reporting the use of a condom with their most recent client	28%	33%	40%	49%	55%	60%
		% FSW reached with HIV prevention programmes - (condoms & testing) in the last 12 months	8%	17%	25%	33%	42%	50%

		% FSW reporting the use of a condom with their most recent client	50%	55%	59%	64%	69%	73%
	Output Strategy 1.1.3 Integrate prevention programme coverage of partners/spouses/family members into targeted key population programming where possible	# Partners/spouses/family of KP reached with HIV prevention programmes - defined package of services per year	2,474	3,008	3,744	4,490	5,226	5,971
Output 1.2 A ramped up investment in community-based HTC for all Key Populations (coverage aligned with epidemic burden)	Output Strategy 1.2.1¹⁴⁰ Fully integrate outreach testing services into expanded frontline prevention programmes for key populations	% PWID that received an HIV test within the last 12 months and who know the results	26%	37%	41%	49%	54%	62%
		% Non SW MSM that received an HIV test within the last 12 months and who know the results	8%	14%	19%	24%	30%	35%
		% MSW that received an HIV test within the last 12 months and who know the results	19%	28%	38%	50%	56%	68%
	Output Strategy 1.2.2 Develop new protocols for community-based testing that ensure complementarity between frontline screening and clinic based confirmation and client tracking across the divide	% HSW that received an HIV test within the last 12 months and who know the results	20%	28%	40%	49%	57%	67%
		% FSW that received an HIV test within the last 12 months and who know the results	9%	19%	29%	36%	46%	56%
	Output Strategy 1.2.3 Integrate HTC for key population partners/spouses/family members into targeted key population programming where possible	# Partners/spouses/family of KP that received an HIV test within the last year and who know the results	2,070	2,340	2,912	3,492	4,065	4,644

¹⁴⁰Testing coverage rates are set at a slightly higher level than prevention coverage rates for the following reason: prevention targets are based on exposure to a minimum of 2 intervention components one of which is testing. Baseline data from IBBS Round V confirmed that those reporting use of 2 interventions (within the last 12 months) exceeded those reporting use of just testing.

Output 1.3 Selective prevention and testing programme coverage of vulnerable populations	Output Strategy 1.3.1 Establish and expand HIV services across priority prisons (including women and juveniles)	# Prisoners that have been reached by HIV prevention programmes ¹⁴¹	4,125	60,312	62,634	65,045	67,550	70,150
	Output Strategy 1.3.2 Develop pre-departure prevention education for intending migrant workers, and a referral system to HTC, ART and PPTCT for returning migrants and their families in priority cities and peripheries in step-wise, phased approach	# Protectorate of Emigrants Offices/Migration Resource Centres integrating HIV information into their service package for migrants	1	3	5	7	8	9

Outcome 2: Increased ART initiation and retention, with key populations and their spouses/partners proportionally covered.		Indicators	Baseline (IBBS V/MIS)	Targets				
				2017	2018	2019	2020	2021
Output 2.1 Removal of key treatment initiation barriers for key populations and their partners/spouses	Output Strategy 2.1.1 Scale up comprehensive treatment preparedness services for PWID.	#/% People living with HIV initiating treatment within the last year	2,324 2%	5,921 4%	14,589 11%	18,193 14%	21,154 16%	25,256 19%
	Output Strategy 2.1.2 Implement a combined OST/ART treatment initiation programme.							
	Output Strategy 2.1.3 Removed CD4 treatment eligibility criteria in line with WHO guidance and scale up “treatment for all” in a phased approach.							
	Output Strategy 2.1.4 Address critical supply-side							

¹⁴¹ Targets based on PC 1 targets for 2016-2018. Targets for 2019-2021 use the same rate of coverage increase as previous years

	barriers: travel distance, limited opening hours, complex registration procedures, attitude of health care workers, weak confidentiality procedures							
	Output Strategy 2.1.5 Scale-up PPTCT services to provide equitable access to vulnerable and marginalized populations.	# HIV-positive pregnant women who received ARVs to reduce the risk of mother-to-child transmission	125	236	590	943	1,179	1,415
Output 2.2 Intensified treatment adherence support differentiated by key population	Output Strategy 2.2.1 Implement intensified case management models, tailored to particular key populations, which provide adherence support across the clinic-community divide. PWID in treatment will need particular attention.	#/% People living with HIV currently receiving ARV therapy	8,888	11,714	23,297	35,961	49,479	65,529
	Output Strategy 2.2.2 Task-shift adherence support programmes with a new focus on delivery by community workers in community settings. Active involvement of key populations/partners/spouses as appropriate.		7%	9%	17%	27%	37%	49%
	Output Strategy 2.2.3 Address needs for care and support, including social protection and nutrition support, within the framework of a coherent adherence support programme.	% People living with HIV that initiated ARV therapy, with an undetectable viral load at 12 months	4%	20%	30%	40%	50%	60%
Output 2.3 New innovations	Output Strategy 2.3.1 Pilot PREP for selected key	# HIV negative people from MSW/MSM receiving PREP within	0	0	0	500	1,000	1,500

to capitalise on the full prevention benefit of treatment.	population(s) with a view to reducing sexual transmission	the last year						
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Outcome 3: Environment for effective AIDS response is enabled		Indicators	Baseline (IBBS V/MIS)	Targets				
				2017	2018	2019	2020	2021
Output 3.1 Enhanced use of strategic information to monitor HIV response coverage, quality and impact.	Output Strategy 3.1.1 Monitoring & Evaluation system strengthened for improved programme implementation	# IBBS reports produced before 2021 (including 2016)	1	0	0	1	0	1
	Output Strategy 3.1.2 Support and disseminate HIV-related substantive and operational research.							
Output 3.2 Increased multi-sectoral coordination at Federal and Provincial Levels.	Output Strategy 3.2.1 Implement targeted and sustained advocacy actions for policy reform, HIV integration and addressing stigma and discrimination.	# Trainings on stigma and discrimination, human rights, law and policy reform		2	3	4	4	4
	Output Strategy 3.2.2 Enhanced participation of multi-sectoral partners to increase service provision and uptake.	# multi-sectoral coordination meetings held per year		2	2	2	2	2
	Output Strategy 3.2.3 Capacity building around models for community-based HTC delivery.	# Trainings for CBOs delivering community-based HTC	0	5	4	3	2	2

Output 3.3 Increased sustainability of the response.	Output Strategy 3.3.1 Reduce costs of the HIV response through mainstreaming and efficiency improvements.	% of total annual expenditure on HIV coming from domestic sources	24%	26%	29%	33%	38%	44% 142
	Output Strategy 3.3.2 Increase domestic resource allocation and mobilise and align additional external resources for sustainability of the Response.							
	Output Strategy 3.3.3 Improve Management and Implementation Arrangements.	# of quarterly M&E reports produced at NACP and PACP levels (National and Provincial)	4	4	4	4	4	4

¹⁴² This target set with reference to UNAIDS recommendations for lower middle income countries, p68, **UNAIDS Strategy 2016-2021, On the Fast-Track to End AIDS**

7.Strategy Budget

NATIONAL	2017	2018	2019	2020	2021	TOTAL
PWID	7,286,881	9,069,921	10,875,497	12,658,536	14,464,113	54,354,947
NON-SW-MSM	10,039,764	15,516,719	21,907,819	27,750,431	33,593,044	108,807,777
MSW	1,918,134	2,669,817	3,389,756	4,164,931	4,916,614	17,059,252
HSW	1,879,593	2,553,511	3,245,888	3,878,913	4,578,573	16,136,479
FSW	3,178,813	4,767,801	5,152,456	8,032,917	9,621,905	30,753,892
PLHIV	2,652,780	5,637,034	8,888,542	12,300,847	16,304,717	45,783,920
Spouses/Families	191,945	237,055	282,490	327,405	372,970	1,411,865
Program Mgmt	500,000	550,000	600,000	600,000	600,000	2,850,000
PrEP	0	0	154,000	308,000	0	462,000
OST	0	0	251,559	628,716	0	880,275
Evaluation	0	0	0	50,000	0	50,000
TOTAL	27,647,911	41,001,857	54,748,006	70,700,697	84,451,935	278,550,406

Annex 1 Priority Cities

1. PWID

	PSE	Dist	Cum. Dist	+ve PSE	Dist	Cum. Dist
KARACHI	29,937	24.6%	24.6%	11,700	33.6%	33.6%
FAISALABAD	12,940	10.6%	35.3%	4,923	14.1%	47.7%
LAHORE	4,701	3.9%	39.1%	1,373	3.9%	51.7%
JACCOBABAD	3,160	2.6%	41.7%	1,009	2.9%	54.6%
GUJRANWALA	3,998	3.3%	45.0%	994	2.9%	57.4%
SIALKOT	3,641	3.0%	48.0%	934	2.7%	60.1%
BAHAWALPUR	3,431	2.8%	50.8%	691	2.0%	62.1%
SARGODHA	2,333	1.9%	52.7%	682	2.0%	64.0%
MUZAFARGHAR	2,122	1.7%	54.5%	594	1.7%	65.8%
MANDI BAHAUDDIN	1,295	1.1%	55.5%	536	1.5%	67.3%
HYDERABAD	4,804	3.9%	59.5%	511	1.5%	68.8%
MIANWALI	1,639	1.3%	60.8%	459	1.3%	70.1%
KASUR	891	0.7%	61.6%	364	1.0%	71.1%
SHEIKHUPURA	2,449	2.0%	63.6%	342	1.0%	72.1%
MULTAN	1,726	1.4%	65.0%	326	0.9%	73.0%
JHANG	1,139	0.9%	65.9%	319	0.9%	74.0%
DERA GHAZI KHAN	902	0.7%	66.7%	291	0.8%	74.8%
RAWALPINDI	1,629	1.3%	68.0%	282	0.8%	75.6%
LODHRAN	941	0.8%	68.8%	264	0.8%	76.4%
OKARA	902	0.7%	69.5%	253	0.7%	77.1%
TOBA TEK SINGH	838	0.7%	70.2%	235	0.7%	77.8%
KHANEWAL	829	0.7%	70.9%	232	0.7%	78.4%
LARKANA	1,500	1.2%	72.1%	195	0.6%	79.0%
PESHAWAR	2,304	1.9%	74.0%	184	0.5%	79.5%
MARDAN	782	0.6%	74.7%	133	0.4%	79.9%
SWAT	673	0.6%	75.2%	114	0.3%	80.2%
KECH/Turbat	394	0.3%	75.6%	52	0.2%	80.4%
QUETTA	626	0.5%	76.1%	42	0.1%	80.5%

2. HSW

	PSE	Dist	Cum Dist	+ve PSE	Dist	Cum Dist
KARACHI	9,123	17%	17%	926	31%	31%
LARKANA	1,130	2%	19%	166	6%	36%
MULTAN	3,130	6%	25%	156	5%	42%
FAISALABAD	2,737	5%	31%	137	5%	46%
JACCOBABAD	1,184	2%	33%	119	4%	50%
RAHIM YAR KHAN	2,092	4%	37%	103	3%	53%
LAHORE	3,936	7%	44%	91	3%	57%
RAWALPINDI	1,580	3%	47%	79	3%	59%
DADU	701	1%	49%	70	2%	61%
SARGODHA	1,213	2%	51%	61	2%	63%
BADIN	472	1%	52%	47	2%	65%
MUZAFARGHAR	878	2%	54%	43	1%	67%

BAHAWALPUR	1,578	3%	57%	41	1%	68%
QUETTA	1,425	3%	59%	39	1%	69%
MANDI BAHAUDDIN	759	1%	61%	37	1%	70%
OKARA	746	1%	62%	37	1%	72%
MIANWALI	678	1%	63%	33	1%	73%
GUJRANWALA	598	1%	65%	30	1%	74%
HARIPUR	644	1%	66%	18	1%	74%
PESHAWAR	567	1%	67%	15	1%	75%
SHEIKHUPURA	800	2%	68%	14	0%	75%

3. MSM

	PSE	Dist	Cum Dist	+ve PSE	Dist	Cum Dist
KARACHI	13,954	25%	25%	1,313	45%	45%
LAHORE	3,994	7%	32%	142	5%	50%
SARGODHA	1,915	3%	36%	101	3%	54%
RAHIM YAR KHAN	1,747	3%	39%	92	3%	57%
HYDERABAD	1,708	3%	42%	86	3%	60%
LARKANA	1,580	3%	45%	84	3%	63%
NAWABSHAH	698	1%	46%	62	2%	65%
RAWALPINDI	1,054	2%	48%	40	1%	66%
KASUR	515	1%	49%	50	2%	68%
MULTAN	4,052	7%	56%	46	2%	70%
MUZAFARGHAR	733	1%	58%	38	1%	71%
SHEIKHUPURA	454	1%	59%	35	1%	72%
MANDI BAHAUDDIN	634	1%	60%	33	1%	73%
OKARA	623	1%	61%	33	1%	74%
FAISALABAD	1,532	3%	64%	23	1%	75%
QUETTA	1,292	2%	66%	18	1%	76%
HARIPUR	534	1%	67%	14	0%	76%
MARDAN	382	1%	68%	10	0%	77%
BAHAWALPUR	2,355	4%	72%	10	0%	77%
BANNU	366	1%	73%	3	0%	77%
PESHAWAR	350	1%	73%	3	0%	77%

4. FSW

	PSE	Dist	Cum Dist	+ve PSE	Dist	Cum Dist
KARACHI	25,191	14%	14%	651	28%	28%
SUKKUR	3,307	2%	16%	291	12%	40%
LAHORE	25,716	15%	31%	197	8%	48%
LARKANA	4,593	3%	34%	189	8%	56%
SHEIKHUPURA	6,252	4%	37%	103	4%	61%
HYDERABAD	4,426	3%	40%	97	4%	65%
NAWABSHAH	1,690	1%	41%	65	3%	68%
FAISALABAD	7,556	4%	45%	40	2%	69%
MULTAN	6,561	4%	49%	17	1%	70%
PESHAWAR	765	0%	49%	23	1%	71%
QUETTA	4,121	2%	52%	0	0%	71%

Annex 2 Intervention Packages

The following table is taken from the Technical Note on AEM for Pakistan, page 13.

Intervention Package for PWID
<ul style="list-style-type: none"> - NSEP Services: Provision of new syringes, needles, band-aids and alcohol swabs; collection of used syringes and needles; provision of condoms; provision of hygiene services; Behaviour change communication messages on HIV, safe sexual practices, safe injecting practices and STIs - HIV Testing & Counselling for PWID and spouse. - Spouse Prevention Program: Provision of condoms, counselling on HIV and safer sexual practices, provision of living support package, referral to PPTCT centres. - Referral to ART and adherence support. - STI diagnosis and treatment. - Paramedic and Basic Medical Care: Antiseptic dressing for wounds and abscesses, Referral to private medical practitioners for basic medical care. - ART Adherence Unit: Residential care for 8 weeks for detoxification, Initiation and maintenance on ART and adherence support.
Intervention Package for MSW
<ul style="list-style-type: none"> - Behavioural change communication through outreach (includes Condom & Lubes, IEC material) - Drop In Centre facility (for repeat BCC /Psycho social support & Counselling) - VCCT with pre & post counselling & psychological counselling (community-based HIV testing) - STI diagnosis & Treatment - Referral support to PLHIV clients with strong follow-up - Condoms & lubes distribution - Career counselling and family counselling in DIC
Intervention Package for HSW
<ul style="list-style-type: none"> - BCC - Behavioural change communication through outreach (includes Condom & Lubes, IEC material) - Drop In Centre facility (for repeat BCC /Psycho social support & Counselling) - VCCT with pre & post counselling & psychological counselling (community-based HIV testing) - STI diagnosis & Treatment - Referral support to PLHIV clients with strong follow-up - Condoms & lubes distribution - Career counselling and family counselling in DIC
Intervention Package for FSW
<ul style="list-style-type: none"> - Establishment of Drop-In Centres (DIC) to deliver services to FSWs;

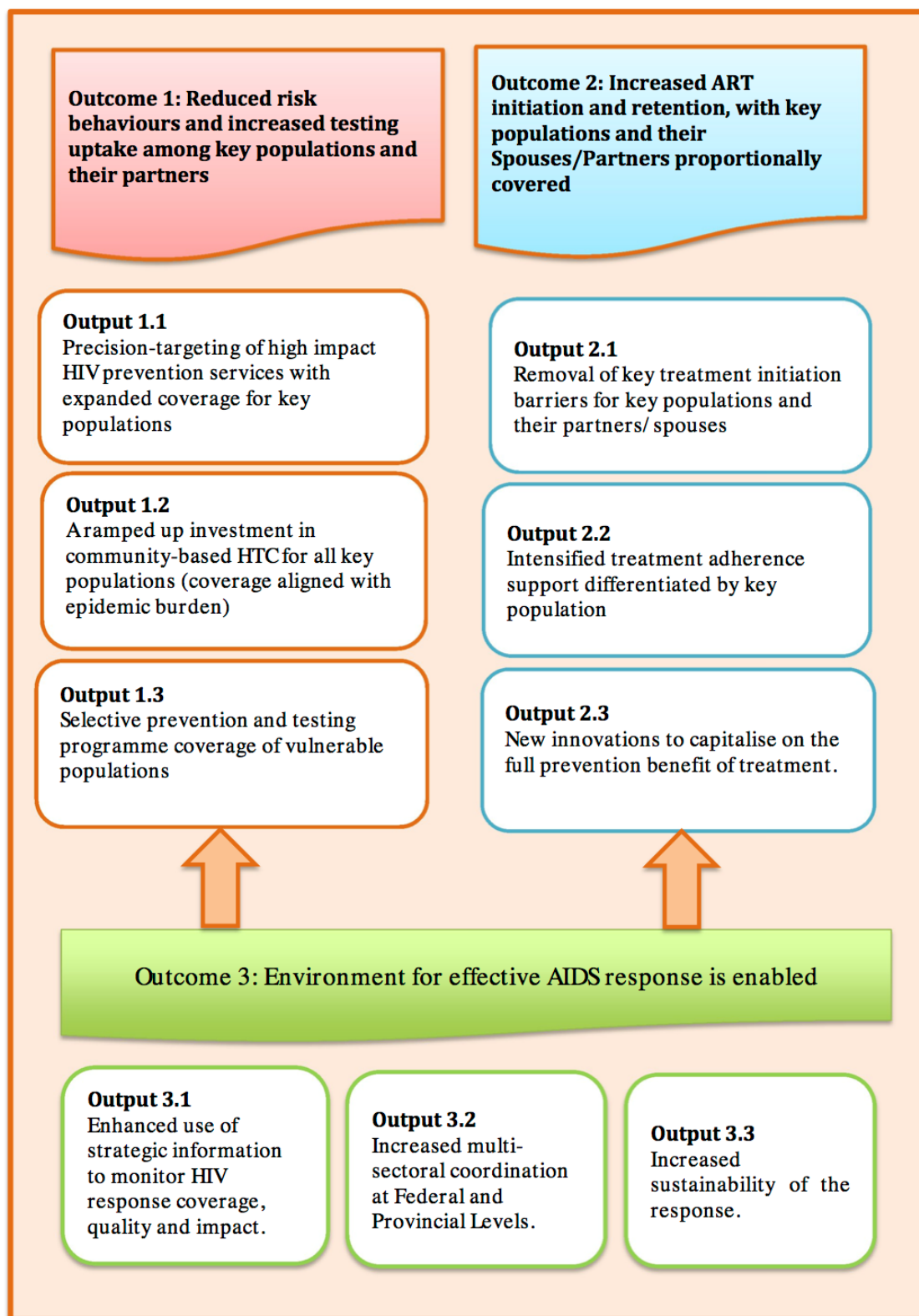
- o Screening/testing of HIV, Hep-B, Hep-C, Syphilis and PAP Smear
- o Vaccination of Hep-B in case of non-reactive;
- o Syndromic Management of STIs;
- o Ensuring confidentiality, collection of client data and issuance of vaccination cards to clients for access to services
- Community based outreach through peer educators for behaviour change;
- Establish condom distribution network to enhance safe sex practices
- Promotion of an enabling environment in the project area;
- Registration of FSWs through bio-metric registration system developed by PACP.

Treatment

- Treat all from 2018 with a phased approach (starting from select high priority cities/districts)
- ARV
- One CD4 count test at ART initiation
- Annual viral load test
- OI diagnosis and prophylaxis (cotrimoxazole and INH)
- Link to care and adherence support

Annex 3 The Revised Strategic Framework

The following graphic summarises the revised strategic framework:



Annex 4 Original Narrative on Outcome 3 from PAS III

Strategic Outcome III supports both Strategic Outcomes I and II.

Strategic Output 3.1 Enhanced use of strategic information to monitor HIV response coverage, quality and impact.

Key Strategy 3.1.1: Monitoring & Evaluation system strengthened for improved programme implementation

Key Implementation Strategies

The PAS III Monitoring and Evaluation Framework was developed through consolidation of the Provincial AIDS Strategies M&E Frameworks and consensus among stakeholders on targets to be set in the Monitoring Framework. PAS III recommends enhanced use of strategic evidence to monitor service coverage, quality and impact. Many challenges exist in the current M&E system including incomplete data reports, lack of coherence among different MIS, lack of standardization of indicators across service providers, lack of age and sex disaggregated data, lack of systematic way to collate and validate data at the provincial level and absence of recent studies for key populations (except the IBBS 2011 and UNODC prison study of 2012). As a result, PAS III M&E Framework relies on various sources of data for baselines, target setting, monitoring and evaluation, while laying out concrete plans to strengthen a coherent MIS system.

Effective implementation of the Pakistan AIDS Strategy depends on fully functional M&E Units at Federal and Provincial AIDS Control Programme levels staffed with an M&E Manager, Epidemiologist, M&E Officer and data entry operator. Similar units in private sector service providers will contribute towards a centralized MIS system collating and producing information at provincial and national levels. Output monitoring relevant to both programme monitoring and national level reporting will be done on quarterly basis and progress reports generated on quarterly and annual basis. Global reporting to UNAIDS is done on an annual basis through the Global AIDS Response Progress Report (GARPR). Most GARPR indicators are included in the PAS III Monitoring Framework, however, those we do not have information for will be reported on when and if information becomes available.¹⁴³ Further, Integrated Biological and Behavioural Surveillance (IBBS) will be conducted every two to three years to monitor the trend and emerging threats.

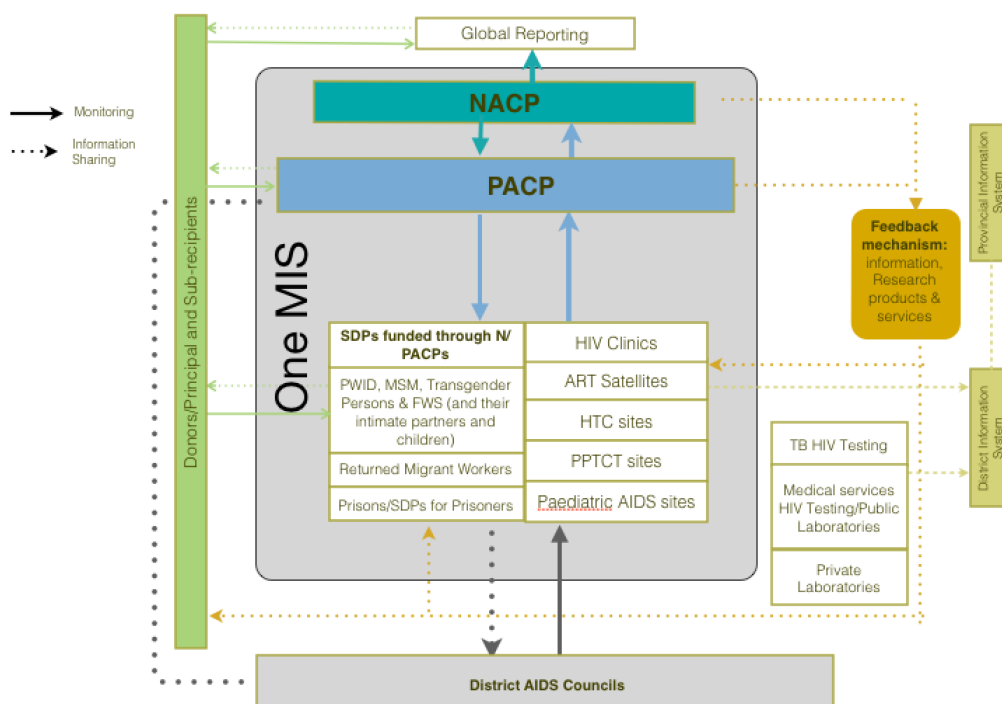
¹⁴³ The following GARPR Indicators are not asked in Pakistan and it is unlikely they will as they are for generalised epidemics and difficult to ask in Pakistan's conservative cultural context: Percentage of young women and men aged 15-24 who have had sexual intercourse before the age of 15; Percentage of adults aged 15-49 who have had sexual intercourse with more than one partner in the past 12 months; Percentage of adults aged 15-49 who had more than one sexual partner in the past 12 months who report the use of a condom during their last intercourse; and Percentage of women and men aged 15-49 who received an HIV test in the past 12 months and know their result. MSM indicators will be reported on after the 2015 National IBBS R V.

Periodic research (according to pre-set agenda), conducted at provincial level will also help in measuring outcomes and impact.

The coherent national electronic MIS will collate data from service delivery points e.g., HIV clinics, ART satellite, HTC, PPTCT, and Paediatric AIDS sites, as well as SDP service sites for key and vulnerable populations, e.g. prisons), based on standardized MIS data collection and reporting tools.

The NACP and PACPs (including DoPH KPK) will directly monitor the SDPs (Key and vulnerable populations) and sites providing HTC and ART services funded through public sector funds. PACPs will monitor privately funded services in collaboration with service providers and District AIDS Councils. The federal (NACP) will not only monitor sampled sites offering services in the four provinces but also the 3 regions of GB, AJK and FATA under its management. At the same time Donors, principal or primary Implementing partners and their partners managing SDPs will also be monitoring the implementers and service delivery points. Meanwhile efforts will be made by PACPs to transfer monitoring responsibilities to their district counterparts (members of DAC) for increasing frequency but without compromising the quality.

Figure 16. Monitoring and Reporting Lines



Data (and SI) will be reviewed at district level with District EDO and service providers (irrespective of funding source) through District AIDS Council meetings on a quarterly basis (see *Implementation Arrangements below for more Information of DACs*). Inputs into the data and SI may be received at District, Provincial (through PACPs and DoPH) and national levels through monitoring visits and

data validation exercises as laid out in the Pakistan PAS III Monitoring and Evaluation Guide. At the same time, public sector sites providing testing and treatment services (HIV clinics, ART satellites, HTC sites, PPTCT sites, Paediatric AIDS sites) will provide data on select indicators to the district HMIS, and data from MIS at PACP level will provide data on select indicators to the provincial HMIS.

A gender-responsive M&E system will track gender-responsive activities, strategies and programmes to monitor funds allocation and to understand and analyse outcomes of these activities on uptake of services and HIV prevalence by age and gender. It will also aim to identify, integrate and track a standard set of indicators (such as violence, sexual behaviour, and use of family planning) to measure gender outcomes across districts over a period of time; should collect and use gender-disaggregated data at all levels; and should examine existing indicators to identify those that are useful to disaggregate by gender for decision making and programme modification.

Key Strategy 3.1.2: Support and disseminate HIV-related substantive and operational research.

Key Implementation Strategies

While Pakistan's sentinel surveillance system has been robust and fairly consistent, other formative and operational research has been lacking, as have programme model evaluations or cost-effectiveness research. To facilitate and evaluate operational research, an HIV Strategic Information Technical Advisory Unit is to be formed at federal level to guide the HIV surveillance and research agenda at Federal and Provincial levels including: 1) guide coherent Nationwide IBBS every two to three years supported at the provincial level for designing, managing, analysing and reporting on rounds; 2) guide population research in AJK, Gilgit-Baltistan and ICT to determine populations most affected in those areas; 3) guide external National and Provincial programme evaluations to be conducted in 2018 (mid-term) & end 2020 including efficiency and cost effectiveness reviews; 4) identify research needs and opportunities, potential research bodies (for conducting and/or managing research); and guide analysis and dissemination of research, and programme/MIS data for programmatic improvement. Potential areas for research and subsequent dissemination of good practices may include the following:

- Evaluate current service delivery models for key populations including existing community-based comprehensive service models for MSM and *hijra* populations(including adolescents), impact of both public and private detoxification services on injecting practicesand impact of rehabilitation for PWID on ART retention;
- Evaluate and adapt PPTCT approach;

- Nexus between HIV and gender based violence experienced by individuals (females, transgender persons and feminised males)¹⁴⁴ as well as institutionalised violence¹⁴⁵ to better understand violence as a risk factor for the transmission of HIV, and HIV as a risk factor for violence against women living with HIV, and how it can be translated into interventions;
- Dynamics of sex work for strengthened programme design including adapted approach for sub-categories of sex workers, including adolescent sex workers; and understand profiles of paying and non-paying partners;
- Assessment of adolescent key populations and subsequent revision of *The National HIV Prevention Strategy for Adolescents and Young People* (2006);
- Map numbers and locations of returned and overseas migrants in KP and generate evidence with the community on adapted approaches to reducing HIV vulnerability and provision of services for migrants; and
- Community-based research conducted for improving quality of services for PLHIV including assessing socio-economic needs of PLHIV and current access to social welfare services.

Key Partners: National and Provincial Governments, Health departments and clinical facilities, NGOs/CBOs providing services to key and vulnerable populations, APLHIV, private labs and clinical facilities, prisons, FIA, UNAIDS, WHO, UNICEF, UNDP, UNODC, UNHCR, UNFPA and NCSW.

Linkages within the Strategy:

- Outcomes I and II

Strategic Output 3.2: Increased multi-sectoral coordination at Federal and Provincial Levels.

Key Strategy 3.2.1: Implement targeted and sustained advocacy actions for policy reform, HIV integration and addressing stigma and discrimination.

Key Implementation Strategies

Implement targeted and sustained advocacy actions for policy reform, HIV integration and addressing stigma and discrimination to enable high impact interventions and protection of rights.

¹⁴⁴ According to the PDHS 2012-13, 1 in 5 women experienced physical violence in the past 12 months; one-third of ever-married women have ever experienced physical violence since age 15- most commonly by the current husband (79%); and overall 16% men (15-49 years), 9% urban and 20% rural men agree that a husband is justified in hitting or beating his wife if she refuses to have sex with him (2009-2013). In 2013, 18% of women in Pakistan experienced sexual violence by spouse or intimate partner, (2005-2013) (Prepared by www.aidsdatahub.org based on Demographic and Health Surveys).

¹⁴⁵ In Pakistan, 22% of women living with HIV who had a desire to have children reported being coerced to undergo sterilization, 2012-2013 (HIV and AIDS Data Hubs for Asia-Pacific Review in Slides. Regional overview slides).

Advocacy and communication units should be established at federal and provincial levels to support advocacy, communications, including programme, as well as support resource mobilisation efforts. Coherent, clear and focused HIV advocacy strategies to be developed at federal and provincial levels. Key advocacy themes include:

- OST, specifically registration and local production, or import of Buprenorphine in 2mg, 4mg, 8mg and 12mg dosages, and approval to use it for treatment of opioid dependent individuals, especially PWID;
- Mitigating stigma and discrimination of key, vulnerable and affected populations and increasing access through parliamentary-supported provincial legislation (Sindh ¹⁴⁶ and ICT ¹⁴⁷ are in process of enacting legislation to mitigate stigma and discrimination) and revision of current punitive legislation¹⁴⁸;
- Mitigating punitive actions against key populations by law enforcement officials and increasing access to services through increased awareness of public health consequences and on the CRC for <18 adolescents engaging in drug use and selling sex;
- Regulation of HIV testing (HTC sites, SDPs, public labs, private labs, BTA and blood transfusion services) including use of WHO pre-qualified kits.
- Information sharing with the Federal Investigation Agency to ensure HIV positive deported returned migrant workers are linked to HIV treatment and care interventions upon arrival in Pakistan.

The outcome of key advocacy efforts would contribute to consistent norms and standards within the HIV response including domestic manufacture, or import, of appropriate OST medications, mitigation of stigma and discrimination through legislation (HIV Acts and Ordinances), non-punitive enforcement around drug use and sex work, consistent reliable HIV diagnoses and access to treatment and care for deported migrant workers.

Advocacy efforts with planners and managers in the executive arm of the government will focus on critical enabling advocacy efforts such as: notifying multi-sectoral coordination at national, provincial and district levels; Increasing the resource allocation for HIV both within the Health sector and outside among other public multi-sectoral stakeholders e.g. the Home Department that oversees prisons; ensuring social protection under Zakat, Bait ul Maal, National Insurance, and women's development schemes, legal partners (including LHRA, Coffey, and private law firms) to provide

¹⁴⁶The Sindh HIV and AIDS Control, Treatment and Protection Bill 2013 passed on September 20, 2013. The bill says no person shall discriminate against another on the basis of other person's HIV status in healthcare services, education, employment or provision of utilities or services and accommodation for lease, rent, hire or purchase. The bill indicates the government would establish the Sindh AIDS Commission within 15 days from the date of promulgation of the Act but to date the Commission has not been established.

¹⁴⁷HIV/AIDS Prevention and Treatment, Care and Support Act, 2013 was presented to the presented before the National Assembly Standing Committee on Health on 22nd January 2015.

¹⁴⁸Inclusive of the operational plan of the *Scan of laws and policies impacting human rights, discrimination and access to HIV services by key populations in Pakistan*.

legal aid/pro-bono support; and other schemes for people affected by HIV (including irrespective of age or gender [including transgender people]); HIV-related work-place policies for the private sector; and inclusion of age-appropriate, gender-equitable sexual and reproductive health and rights education in extra and/or core curricula. Additionally, advocacy on social enablers would include efforts with religious leaders to facilitate HIV prevention education and implementation of HIV services for key and vulnerable populations and at-risk adolescents, women's machinery to link on issues that impact vulnerability access to services such as child marriage, and GBV¹⁴⁹ – including men's engagement, while media (print and electronic) will ensure that target of PAS III are achieved through a conducive environment.

A key function of advocacy in Pakistan's concentrated epidemic is to work towards removing human rights barriers to health services for key populations and other vulnerable groups and mitigating discrimination and criminalization which reduce access to health, and undermine efforts toward effective responses to HIV.

See Annex III. Strategic Checklist for Monitoring Integration of Human Rights into HIV & AIDS

Key Strategy 3.2.2: Enhanced participation of multi-sectoral partners to increase service provision and uptake

Key Implementation Strategies

While it is not guaranteed that multi-sectoral partners will engage in the HIV response agenda, to facilitate their participation at least two meetings per year to be organized with all relevant stakeholders and service providers, (including DoH, community-based and PLHIV organizations and multi-sectoral partners such as TB, Hepatitis, Social Welfare, CPA, IG Prisons, Home Department, Law Enforcement Agencies, Education, NCSW, BOEO). Reports on progress of the response will be made to the partners, and address re-occurring or new coordination challenges. Provincial AIDS Control Programmes to facilitate smaller meetings as needed on specific issues related to prevention, treatment and care access. See Annex I. for suggested stakeholders roles and responsibilities.

To mitigate the impact of natural and humanitarian disasters (including Earthquake and recent floods, IDPs) on the HIV response, with the National Health Emergency Preparedness and Response Network, Pakistan Institute of Medical Sciences, analyse HIV related vulnerability and

¹⁴⁹Pakistan voted without reservation for the Asian and Pacific Ministerial Declaration on Population and Development (2013), at the Sixth Asian and Pacific Population Conference held in Bangkok, 16-20 September 2013. Article 81 includes "to take to take all possible preventive and remedial measures, by all relevant stakeholders at all levels, to end all forms of violence and discrimination against women and girls, including by empowering women and girls and protecting them against all forms of violence."

access issues in emergencies, internationally recommended responses and the response to date in Pakistan and develop SOPs for HIV in emergencies.

To ensure relevant and appropriate information on HIV reaches the general and vulnerable populations, Media to undertake mass communication campaign (gender sensitive including transgender sensitive) focused on self-identification of risk behaviour and information where to get tested and treated; and stigma reduction.

Guidelines or Protocols to be developed:

- SOPs for emergencies

Key Partners: National and Provincial Governments, public clinical facilities, NGOs/CBOs providing services, APLHIV, private labs and clinical facilities, prisons, UNAIDS, WHO, UNICEF, UNDP, UNODC, UNHCR, UNFPA, ILO, IOM, BEOE, FIA, CAA, Education, Social Welfare and other social protection partners, NCCWD/PCCWD, Child Protection authorities, religious leaders, legal aid providers, media, legislators, policy makers

Linkages within the Strategy:

- Outcomes I and II

Output 3.3 Increased sustainability of the response.

Key Strategy 3.3.1: Reduce costs of the HIV response through mainstreaming and efficiency improvements.

Key Implementation Strategies

Mainstreaming and efficiency improvements are indicated in all Outcomes. For example innovative a more prioritized response, PoC diagnostics and satellite ARV provision, Consolidated Guidelines promoting fixed dose combination, strengthened systems including MIS, LMIS, QA and referrals, SoPs, and adapted programme implementation based on findings from operational research and efficiency and cost effectiveness reviews. In addition to improvements within the HIV sector, it is critical that with reduced global funding opportunities for HIV and competing domestic priorities such as security and disaster response, health and other sectors should address HIV in their PC-1s including narcotics control, social welfare, overseas employment, and education.

Key Strategy 3.3.2: Increase domestic resource allocation and mobilise and align additional external resources for sustainability of the Response.

Key Implementation Strategies

The PAS III calls for a Resource Mobilization Strategy to be developed at Provincial and National levels to ensure domestic resources are increased for the HIV response and external funds are mobilised and aligned. Specific strategic Actions to include:

- N/PACPs ensure timely PC-1 development, release and expenditure for increased budgets in subsequent PC-1s;
 - N/PACPs ensure availability of evidence (research, MIS) for scaling up interventions resulting to enhance budget proposals for HIV services;
 - Innovative mechanisms for private and philanthropic contributions to HIV sector response;
 - N/PACPs to revise or align their PC-1s with the costed National AIDS Strategy to mobilise resources;
 - CBOs and PLHIV networks to be supported with programme design and proposal writing support to access domestic resources from private and public sectors;
 - N/PACPs to circulate biannual reports including epi summaries summary of programmatic intervention progress, and have regular meetings with international organisations and funders, with priority focus on the World Bank, and key bilateral partners such as DFID and USAID.
-

Key Strategy 3.3.3: Improve Management and Implementation Arrangements

Key Implementation Strategies

The PAS III calls for management and implementation arrangements to be significantly strengthened at both National and Provincial levels, and at the private sector service provision level and between Government and private sector.

Implementation arrangements for management capacity building will be spelled out in a detailed action plan at both Federal and Provincial levels, which will be updated as needed. Management capacities of the National and Provincial AIDS Control Programmes as well as service providers to be strengthened through specific management training and refresher trainings to be rolled out through internal arrangements or external institutions including:

1. Financial Management
2. Project Management
3. Procurement
4. Human Resource Management (HRM)

5. Surveillance and Epidemiology

6. Management Information Systems (including Logistics)

National and Provincial AIDS Control Programmes will ensure minimum qualified staff relevant to programme implementation levels with clear ToRs and regular performance assessments. Staff functions suggested to include at the minimum:

- Health Programme Specialist as part of Management Team
- Epidemiologist/researcher; Monitoring/Assessment specialist/officer; Statistician (Federal level); as part of M&E Unit
- Procurement/supply management specialist; Logistics officer; and storekeepers part of Procurement Supply Management Unit¹⁵⁰
- Advocacy Communications Specialist; Programme Communication Specialist as part of Communication and Fundraising Unit;
- Training Coordinator (Federal level)

Persistent risks will be countered through development of a comprehensive and sound risk mitigation strategy at Federal and Provincial levels. *See III.7. Risk Mitigation.*

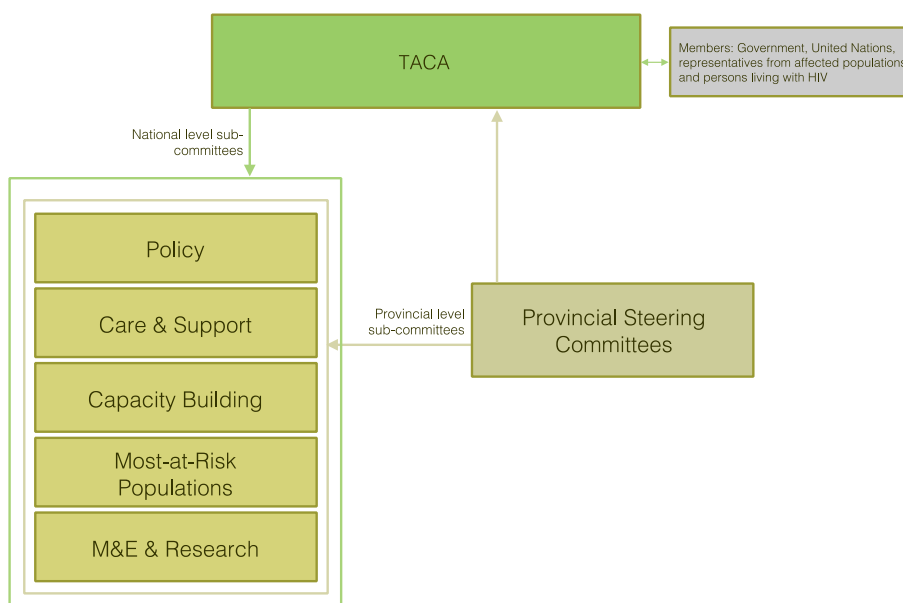
Oversight

Oversight is critical to good management and is to be achieved in part through the re-establishment of the Technical Advisory Committee on AIDS (TACA)¹⁵¹ originally established in 2004, and Provincial level Steering Committees.

Figure 17. TACA Oversight Structure

¹⁵⁰ At Federal and Punjab levels there should also be a Pharmacist as part of the PSM Team.

¹⁵¹ The TACA comprises of 5 sub-committees that includes: policy, care and support, capacity building, most at-risk populations, and M&E and research.



The role of TACA has expanded from a previous primary policy role to one that includes assessment, review and programme guidance. Specific ToRs are as follows:

- i. Provide overall policy guidelines including areas to advocacy, BCC, and use of NGO/private sector institutions for delivery of services to the identified vulnerable population sub-groups;
- ii. Review overall program performance of all implementing agencies, both technical & financial, on the basis of their implementation plans;
- iii. Provide guidance and suggest options to overcome implementation bottlenecks
- iv. Review periodic assessment reports and accord approval for changes in implementation modalities, if any;
- v. Provide support for approval of new laws and regulations at National level, if and when needed;
- vi. Its members create enabling environment for implementation of the project.

TACA Members include:

1.	Minister, Ministry of NHR&C	Chairperson
2.	Secretary, Ministry of NHR&C	Member
3.	Secretary, Ministry of Finance	Member
4.	Secretary, Ministry of Religious Affairs	Member
5.	Secretary, Economic Affairs Division	Member
6.	D G,, Ministry of NHR&C	Member
7.	Director General, Ministry of Technical Education & Training	Member

8.	Director General, Ministry of Overseas & HRD	Member
9.	Chief Health Planning and Development	Member
10.	Director General, Ministry of Information	Member
11.	Program Manager Provincial AIDS Control Program Punjab	Members
12.	Sind, Baluchistan, Focal Person KP	Members
13.	Country Representative UNAIDS	Members
14.	Country Representative UNDP	Members
15.	Country Representative UNICEF	Members
16.	Country Representative WHO	Members
17.	Country Director USAID	Members
18.	Country Director DFID	Members
19.	Chief Health Advisor, the World Bank	Members
20.	Representative of PLHIVs	Member
21.	National Program Manager	Member Secretary
22.	National AIDS Control Programme	

The Provincial Steering Committees provide technical oversight and are responsible for overseeing the implementation of the PAS III. They will support in preparation of provincial operational plans, M&E Framework, development of guidelines and mechanisms for public private partnerships (based on lessons learnt) when services for KPs are outsourced, development of coordination mechanisms for working with PLHIV, CBOs, development partners, and public sector line departments, extend support to NACP for carrying out IBBS and other HIV-related research and development of standards, liaise with development partners funding agencies at both domestic and international levels, and help develop a risk mitigation strategy.

District AIDS Councils

Under GF Round 9 District AIDS Councils were initiated in five select districts by PR 1 for enhanced coordination with and among government departments at the local level for service provision to injecting drug users. Under PAS III DACs will be adapted to include representatives of other key populations in districts where they exist, and expanded to additional districts as needed. DAC support oversight by developing a coherent strategy and action plan to deal with HIV and AIDS in the district. They coordinate local efforts to ensure that services are properly delivered and to monitor effectiveness.

District AIDS Councils work as advisory bodies to provide advice, information, and recommendations on the problems faced by communities as a result of HIV and AIDS and to make useful suggestions to the ways to control HIV & AIDS effectively in the respective districts. DACs suggest ways to reduce the risk, fear, and incidence of HIV infection, encourage the independence of people living with or affected by HIV and AIDS, and promote understanding of their needs. DACs promote communication and information sharing and mobilize broader involvement. They ensure that available resources are used as efficiently as possible. On-going monitoring and assessment will be part of its work.

Guidelines or Protocols to be developed:

- Management capacity building action plan
- Staffing plan for NACPs and PACPs with minimum staff qualifications and ToRs
- Risk Mitigation Strategy
- TACA and Steering Committee ToRs

Key Partners: All partners in the HIV response.

Linkages within the Strategy:

➤ Outcomes I and II

Annex I (original version of PAS III): Stakeholders Roles and Responsibilities

Stakeholder	Expected Roles and Responsibilities	Level
Federal		
NACP	<ul style="list-style-type: none"> • Develop, seek approval and manage PC-1 funds and Donor grants on HIV • Develop/Revise National guidelines and its related strategies for implementation by provinces • Coordinate with Federal Ministries, Donors, UN Agencies and relevant stakeholders • Manage international procurements for diagnostic and pharmaceuticals on behalf of provinces • Develop/improve and manage national MIS, surveillance and research • Develop and manage National Quality Assurance and Pharmacovigilance systems • Develop and manage national trainings • Developing Annual/GARP Reports • Convene multi sectoral meetings according to schedule • Represent Pakistan's response toward HIV and AIDS in national and international forums 	National
Ministry of National Health Services Regulation and	<ul style="list-style-type: none"> • Facilitate early approval of national PC-1 funds and Donor grants for HIV program • Ensure prompt approvals of Staff hiring at NACP • Ensure prompt approvals procurements at NACP 	National

Coordination	<ul style="list-style-type: none"> Facilitate coordination with Federal Ministries, Donors, UN Agencies and relevant stakeholders Represent Pakistan's response toward HIV and AIDS in national and international forums Facilitate Detoxification services based on SOPs in line with international standards and guidance 	
Ministry of Planning and Development	<ul style="list-style-type: none"> Facilitate early approval of national PC-1 funds for HIV and other relevant programs complementing HIV interventions Facilitate coordination with Federal Ministries, Donors, UN Agencies and relevant stakeholders for complementing HIV program 	National
Ministry of Finance, Revenue, Economic Affairs, Statistics and Privatization	<ul style="list-style-type: none"> Facilitate earmarking of funds for PC-1 in annual development plan Facilitate early approval of national PC-1 funds and Donor grants Ensure timely and complete release and funds for implementation of grants Ensure participation in multi sectoral meetings 	National
Ministry of Interior and Narcotics Control	<ul style="list-style-type: none"> Facilitate approval of National OST Strategy Facilitate import/manufacture of oral substitute drugs Participate in joint monitoring of OST service delivery sites and storage facilities Facilitate advocacy efforts to bring policy and legislations for relevant harm reduction interventions Facilitate trainings (initial and refresher) FIA staff at airports with international flights on HIV and how to refer deported migrants and their families to HTC, treatment centres and NGOs/CBOs providing care and support. Ensure participation in multi sectoral meetings 	National
Ministry of Law, Justice and Human Rights	<ul style="list-style-type: none"> Facilitate advocacy efforts to bring policy and legislations for HIV interventions Ensure participation in multi sectoral meetings Advise, lead and enhance the implementation of women empowerment commitments across line ministries and institution Advocate and leverage support to strengthen alliances and collaboration between the HIV response and institutions and organizations working to promote gender equality at the national, district, and local levels to enable greater coordination of a gendered HIV response. Strengthen the linkages and collaborative works of Ministry of Law, Justice and Human rights (MOLJ & HR) National Commitment and Policy instrument (NCPI), and Provincial Commission on the Status of Women (PCSW), Ministry of Health, and Social Welfare Departments (SWD) with the National and Provincial AIDS Control programme. Build the capacity of district level authorities to effectively plan, implement, monitor and evaluate activities that address the gender specific dimensions of the epidemic Strengthen the capacity and involve the affected communities, particularly key affected women and girls and the Hijra community who face significant barriers that prevent their participation. 	National
Ministry of Parliamentary Affairs	<ul style="list-style-type: none"> Facilitate advocacy efforts to bring policy and legislations for HIV interventions Ensure participation in multi sectoral meetings 	National
Ministry of Overseas Pakistanis and	<ul style="list-style-type: none"> Facilitate private sector organization on intervention for intending migrants Facilitate complete and sustained coverage of HIV risk identification and 	National

Human Resource Development	<ul style="list-style-type: none"> referral information to airports with international flights (through Civil Aviation Authority) Facilitate strengthening of referral system for returned HIV positive migrants and their families Ensure participation in multi sectoral meetings 	
Ministry of States and Frontier Regions	<ul style="list-style-type: none"> Facilitate NACP and private sector organization(s) for HIV intervention in Frontier Regions Facilitate monitoring of HIV interventions in Frontier Regions Facilitate strengthening of referral system for beneficiaries of HIV intervention for relevant services Ensure participation in multi sectoral meetings 	National / Regional
Ministry of Kashmir Affairs and Gilgit Baltistan	<ul style="list-style-type: none"> Facilitate NACP and private sector organization(s) for HIV intervention in Gilgit/Baltistan and AJK Facilitate monitoring of HIV interventions in Gilgit/Baltistan and AJK Facilitate strengthening of referral system for beneficiaries of HIV intervention for relevant services Ensure participation in multi sectoral meetings 	National / Regional
National TB Program	<ul style="list-style-type: none"> Facilitate the revision of TB/HIV guidelines when required Facilitate provision of Anti Tubercular drugs and INH prophylaxis treatment for PLHIV, diagnosed with TB, in HIV clinics Ensure participation in multi sectoral meetings 	National/ Provincial
Drug Regulatory Authority	<ul style="list-style-type: none"> Facilitate inclusion of HIV related drugs in essential drug list Facilitate approval for manufacturing of oral substitute drugs suggested in National OST Strategy Ensure participation in multi sectoral meetings 	National
Anti-Narcotic Force	<ul style="list-style-type: none"> Facilitate OST intervention in the country Facilitate development of IEC material for OST strategy Joint monitoring of OST intervention sites including storage facilities Ensure participation in multi sectoral meetings 	National / Provincial
Bureau of Employment and Overseas Emigration	<ul style="list-style-type: none"> Facilitate development of IEC material for intending migrant workers Facilitate private sector organization on intervention for intending migrants Facilitate strengthening of referral system for returned HIV positive migrants and their families Ensure participation in multi sectoral meetings 	National / Provincial
National Health Emergency Preparedness and Response Network, Pakistan Institute of Medical Sciences	<ul style="list-style-type: none"> Facilitate development of SOPs for HIV in emergencies Ensure participation of public and private key HIV stakeholders in the Clusters and other coordination mechanisms during emergencies 	National/Provincial/District
CAA	<ul style="list-style-type: none"> Facilitate complete and sustained coverage of HIV risk identification and referral information to airports with international flights (through Civil Aviation Authority) Ensure participation in multi sectoral meetings 	National/ Provincial
UNAIDS	<ul style="list-style-type: none"> Facilitate development/revision of relevant national guidelines and strategies Provide technical assistance to NACP/PACP on HIV interventions, trainings and research 	National/ Provincial

	<ul style="list-style-type: none"> • Facilitate NACP for Global reporting • Provide support to PLHIV association • Facilitate initiatives with parliamentarians, media and religious leaders and women groups. • Ensure participation in multi sectoral meetings 	
WHO	<ul style="list-style-type: none"> • Facilitate development /revision of relevant national guidelines and strategies • Provide technical assistance to NACP/PACP on HIV interventions, trainings and research • Facilitate technical assistance to undertake Epidemiological analysis of HIV in the country • Ensure participation in multi sectoral meetings 	National/ Provincial
UNICEF	<ul style="list-style-type: none"> • Facilitate development /revision of relevant national strategy and guidelines on PPTCT • Provide technical assistance to NACP/PACP on HIV interventions and research on pre and postal natal management of HIV positive women • Facilitate capacity building of identified divisional level hospitals in the country (with ART and paediatric treatment) • Ensure participation in multi sectoral meetings 	National/ Provincial
UNODC	<ul style="list-style-type: none"> • Facilitate approval of National OST Strategy • Facilitate in manufacture of oral substitute drugs in the country • Participate in joint monitoring of OST service delivery sites and storage facilities • Facilitate advocacy efforts to bring policy and legislations for relevant harm reduction interventions • Ensure participation in multi sectoral meetings 	National/ Provincial
UNDP	<ul style="list-style-type: none"> • Facilitate development /revision of relevant national HIV strategy and guidelines on MSM/TG interventions • Ensure participation in multi sectoral meetings 	National/ Provincial
UNHCR	<ul style="list-style-type: none"> • Facilitate private sector organization on intervention for refugees and internally displaced persons • Facilitate strengthening of referral system for returned HIV positive refugees, internally displaced persons and their families • Ensure participation in multi sectoral meetings 	National/ Provincial
UNFPA	<ul style="list-style-type: none"> • Facilitate development /revision of relevant national strategy and guidelines on STI management • Provide technical assistance to NACP/PACP on HIV interventions STI management • Facilitate capacity building of identified divisional level hospitals in the country on STI management • Ensure participation in multi sectoral meetings 	National/ Provincial
ILO	<ul style="list-style-type: none"> • Facilitate private sector organization on intervention for intending migrants • Facilitate strengthening of referral system for returned HIV positive migrants and their families • Ensure participation in multi sectoral meetings 	National/ Provincial
IOM	<ul style="list-style-type: none"> • Facilitate private sector organization on intervention for intending migrants • Facilitate complete and sustained coverage of HIV risk identification and referral information to airports with international flights (through Civil Aviation Authority) • Facilitate strengthening of referral system for returned HIV positive migrants and their families 	National

	<ul style="list-style-type: none"> • Ensure participation in multi sectoral meetings 	
Zakat and Bait ul Mal	<ul style="list-style-type: none"> • Facilitate introduction of the policy for Zakat and Bait ul Mal services in the country to extend assistance to PLHIV and their families • Jointly develop guidelines and protocols with NACP / PACPs for extension of Zakat and Bait ul Mal services to PLHIC and their families • Ensure participation in multi sectoral meetings 	National/ Provincial
International/National NGO	<ul style="list-style-type: none"> • Establish fully functional Programme Management, Financial, PSM, M&E units to manage HIV grants • Coordinate with relevant Ministries, Donors, UN Agencies and relevant stakeholders • Organize initial and refresher trainings • Institutionalize and develop capacity of stakeholders on programme and multi-sectoral referral system • Manage procurements of commodities not provided by public sector • Implement standardized MIS and share reports and research with national surveillance system • Developing Annual Reports • Participate in multi sectoral meetings • Represent Pakistan's response toward HIV and AIDS in national and international forums 	National/ Provincial/ District
Association of People Living with HIV and AIDS	<ul style="list-style-type: none"> • <i>All functions mentioned above</i> • Ensure the participation of PLHIV in all related HIV programming and policy development and implementation – both within and outside of the PAS III 	National/ Provincial/ District
Provincial		
PACPs / Department of Health KPK	<ul style="list-style-type: none"> • Develop/Revise Provincial AIDS Strategy in 2016 • Develop, seek approval PC-1 funds and Donor grants on HIV in the province • Establish fully functional Programme Management, Financial, PSM, M&E units to manage HIV grants in the province • Coordinate with Provincial Ministries, Donors, UN Agencies and relevant stakeholders • Organize initial and refresher trainings on consolidated guidelines (and including case holding) implemented for HIV infectious disease physicians, paediatricians and other relevant medical and para-medical staff of each divisional hospital • Institutionalize and develop capacity of stakeholders on programme and multi-sectoral referral system • Facilitate referral for increased access to (ART adherence centred) rehabilitation for all HIV positive PWID on ART with linkages to vocational training and/or income generating opportunities • Manage procurements of diagnostic and pharmaceuticals in the province • Manage MIS, surveillance and research • Manage National Quality Assurance and Pharmaco-vigilance systems in the province • Develop plans and manage provincial trainings • Developing Annual Provincial Reports • Convene multi sectoral meetings according to schedule • Represent Pakistan's response toward HIV and AIDS in national and international forums 	Provincial/ District
Health Department	<ul style="list-style-type: none"> • Facilitate early approval of Provincial PC-1 funds and Donor grants for HIV program • Ensure prompt approvals of Staff hiring at NACP 	Provincial/ District

	<ul style="list-style-type: none"> • Ensure prompt approvals procurements at NACP • Facilitate coordination with Federal Ministries, Donors, UN Agencies and relevant stakeholders • Represent Pakistan's response toward HIV and AIDS in national and international forums • Facilitate Detoxification services based on SOPs in line with international standards and guidance • Ensure participation in multi sectoral meetings 	
Planning and Development Department	<ul style="list-style-type: none"> • Facilitate early approval of national PC-1 funds for HIV and other relevant programs complementing HIV interventions • Facilitate coordination with Federal Ministries, Donors, UN Agencies and relevant stakeholders for complementing HIV program 	Provincial
Finance Department	<ul style="list-style-type: none"> • Facilitate earmarking of funds for PC-1 in annual development plan • Facilitate early approval of national PC-1 funds and Donor grants • Ensure timely and complete release and funds for implementation of grants • Ensure participation in multi sectoral meetings 	Provincial
Home Department	<ul style="list-style-type: none"> • Facilitate approval of National OST Strategy • Participate in joint monitoring of OST service delivery sites and storage facilities • Facilitate advocacy efforts to bring policy and legislations for relevant harm reduction interventions • Facilitate trainings (initial and refresher) FIA staff at airports with international flights on HIV and how to refer deported migrants and their families to HTC, treatment centres and NGOs/CBOs providing care and support. • Facilitate complete and sustained coverage of HIV risk identification and referral information to airports with international flights (through Civil Aviation Authority) • Facilitate private sector organization on intervention for intending migrants • Facilitate strengthening of referral system for returned HIV positive migrants and their families • Ensure participation in multi sectoral meetings 	Provincial/ District
Law and Parliamentary Affair Department	<ul style="list-style-type: none"> • Facilitate advocacy efforts to bring policy and legislations for HIV interventions • Ensure participation in multi sectoral meetings 	Provincial
Inspectorate of Prisons	<ul style="list-style-type: none"> • Facilitate revision of Prison Manual for HIV intervention • Facilitate implementation of HIV intervention in the Prison • Facilitate the capacity building efforts for prison staff to assume the management of HIV interventions in the prisons • Facilitate the private sector organization for contacting the families/intimate partners of the HIV positive prisoners • Ensure participation in multi sectoral meetings 	Provincial/ District
Anti-Narcotic Force	<ul style="list-style-type: none"> • Facilitate OST intervention in the province • Joint monitoring of OST intervention sites including storage facilities • Ensure participation in multi sectoral meetings 	Provincial/ District
Bureau of Employment and Overseas Emigration	<ul style="list-style-type: none"> • Facilitate distribution of IEC material for intending migrant workers • Facilitate private sector organization on intervention for intending migrants • Facilitate strengthening of referral system for returned HIV positive migrants and their families 	Provincial

	<ul style="list-style-type: none"> • Ensure participation in multi sectoral meetings 	
CAA	<ul style="list-style-type: none"> • Facilitate complete and sustained coverage of HIV risk identification and referral information to airports with international flights (through Civil Aviation Authority) • Ensure participation in multi sectoral meetings 	Provincial
Health Care Commission / Health Regulatory Authority	<ul style="list-style-type: none"> • Facilitate policy introduction on regulating HIV testing in the Province according to WHO guidelines • Ensure Blood Transfusion Authority is screening blood based on the WHO approved HIV Rapid testing kits • Ensure Public and Private Laboratories/Health facilities are following the national VCCT guidelines for HIV testing 	Provincial
Prevention and Control of Hepatitis Programme	<ul style="list-style-type: none"> • Contribute in development/revision of Continuum of Care guidelines for integration of Hepatitis Prevention and Control Programme with AIDS control programme in the Province. • Contribute in clinical management of PLHIV for prevention and control of Hepatitis through provision of vaccines for Hepatitis B and Interferon for treatment of Hepatitis B and C to SDPs serving PWIDs and PLHIV on ART respectively 	Provincial
Service Delivery Package implementers	<ul style="list-style-type: none"> • Manage the awarded HIV grant • Establish fully functional Programme Management, Financial, PSM (where required) and M&E units • Coordinate with relevant Provincial and District Administration for addressing the issues in implementation • Organize initial and refresher trainings • Institutionalize and develop capacity on programme and multi-sectoral referral system • Manage procurements of commodities not provided by public sector • Implement standardized MIS and share reports and research with provincial surveillance system • Develop Annual Reports and represent Pakistan's response toward HIV and AIDS in national forums • Participate in multi sectoral meetings 	Provincial/ District

Annex III (original version of PAS III) Strategic Checklist for Monitoring Integration of Human Rights into HIV & AIDS

Human Rights	HIV- related rights violations	Impact on Health, HIV and Human Rights	Key checklist
Every person has the right to equality and non-discrimination	<p>Key populations that are vulnerable to and at higher risk of exposure to HIV are discriminated against in access to healthcare</p> <p>Laws criminalizing key populations (e.g. laws criminalizing HIV transmission or sex between men) increase stigma and discrimination against key populations</p>	<p>Discrimination denies key populations access to HIV prevention, treatment, care and support services, placing them at increased risk of HIV</p> <p>Discrimination creates fear and forces key populations to remain 'invisible' in society, limiting their access to important services and negatively impacting on their health</p>	<p>Was meaningful involvement of KPs ensured during programme designing? Has a Stigma Index study been done that define key stigma and discrimination issues?</p> <p>Was legal and policy scan carried out? If yes, action plan developed and implemented? Advocacy carried out with parliamentarians and policy makers on removal of legal barriers? Train paralegals, law clinics and human rights organizations to provide HIV-related human rights services. Train networks of people living with HIV and other key populations to provide legal advice. Encourage private lawyers to provide pro bono (free) services. Support national human rights commissions, alternative dispute resolution mechanisms, and traditional and religious leaders to respond to HIV-related human rights violations</p>
Every person has the right to liberty, security of the person and protection from cruel, inhuman or degrading treatment	People perceived to be at higher risk of HIV exposure (e.g. sex workers) may be subjected to mandatory HIV testing without their voluntary and informed consent	Mandatory HIV testing laws and policies create fear, discouraging pregnant women from accessing healthcare services and increasing their risk of HIV exposure	Are privacy and confidentiality appropriately respected and protected? Does the situation analysis include data disaggregated by sex, age, and other factors, as appropriate? Does the program design promote non-discrimination and equality for all beneficiaries? Does the program promote gender equality? Will women and children (both girls and boys) benefit directly from the program? Do communities participate in the human rights assessment to identify inequalities and imbalances, key issues, priorities and concerns?
Every person has the right to privacy	People living with HIV experience breaches of their right to confidentiality about their HIV status	Breaches of confidentiality create fear and discourage people living with HIV from seeking out health services	

Every person has the right to marry and found a family	People living with HIV are subjected to marital HIV testing in some countries, are denied access to reproductive healthcare services, pressured not to have children or to have sex, and even forcibly sterilized	Denying people living with HIV equal access to marriage and family rights is unfairly discriminatory	Education and training workshops on human rights and law. Facilitated dialogue between affected populations, service providers and law enforcement officials. Involvement of people living with HIV and other key populations
Every person has the right to fair labour practices	People living with HIV are discriminated against and unfairly dismissed in the workplace on the basis of their HIV status	Workplace discrimination denies employees with HIV the ability to earn a living when they may need income most. This increases the impact of HIV on their lives	Does the implementing organization have an adequate policy on HIV in the workplace?
Everyone has the right to freedom of assembly and association	In some countries people living with HIV and other key populations are denied the right to organize and form support organizations	Where laws or practices prevent key populations from organizing, they lose an important source of information and support to promote their health	Does implementation plan reflect removal or amendment of such discriminatory laws?
Every person has the right to freedom of movement	HIV should not be treated differently from other diseases with regard to immigration, long-term residency or short-term visits to any country	Countries that require information about HIV status, that deport people who are living with HIV, and who treat HIV differently from other diseases, can undermine access to healthcare, information and other human rights	Any plans for bringing overseas ministry on board and sensitize them? Awareness raising and information kiosks at land, sea and air routes for passengers on HIV
Every person has the right to access to information	Laws and policies in some countries prohibit adolescents, children and key populations (e.g. men who have sex with men) from getting appropriate HIV information and education	Laws and policies in some countries prohibit adolescents, children and key populations (e.g. men who have sex with men) from getting appropriate HIV information and education	Are there plans for TV and radio shows integrate non-stigmatizing messages into their programming? Mobilization of community, religious and traditional leaders to speak out against stigma and discrimination.

Annex 5 Consultations Conducted in Support of Strategy Revision

This revision of PAS III was developed on the basis of an inclusive and participatory consultation process with multiple stakeholders.

Consultation Meetings Log				
S.No.	Date (2017)	Type	City	Participants
1	21 st Feb	TWG (1)	Islamabad	NACP, PACPs, UN Partners, APLHIV & CCM
2	28 th Feb to 1 st Mar	Provincial Plenary Consultation & Focus Group Discussions	Punjab	Multi-stakeholders including Key Population representatives
3	2 nd Mar	Provincial Plenary Consultation & Focus Group Discussions	Sindh	Multi-stakeholders including Key Population representatives
4	6 th Mar	Provincial Plenary Consultation & Focus Group Discussions	Balochistan	Multi-stakeholders including Key Population representatives
5	6 th to 10 th Mar	AEM (Estimation & Projection Workshop)	Bangkok	NACP, NZ, UNAIDS & UNICEF
6	13 th Mar	Provincial Plenary Consultation & Focus Group Discussions	KPK	Multi-stakeholders including Key Population representatives
7	14 th Mar	TWG (2)	Islamabad	NACP, PACPs, UN Partners, APLHIV & CCM
8	15 th Mar	Country Dialogue	Islamabad	Multi-stakeholders (NACP, PACPs, UN Partners, APLHIV), including Key Population representatives, CCM, MoNHSR&C
9	20 th to 24 th Mar	AEM (National Estimation & Projection workshop)	Bhurban	NACP, PACP, NZ, UoM, UNAIDS & UNICEF
10	3 rd to 7 th Apr	AEM (National Intervention & Impact Analysis Workshop)	Lahore	NACP, PACP, NZ, UoM, UNAIDS, UNICEF, National & International Consultants (GF-NFR), GF representatives
11	4 th May	TWG (3)	Islamabad	MoNHSR&C, NACP, PACPs, UN Partners, APLHIV & CCM
12	5 th May	Country Dialogue	Islamabad	Multi-stakeholders (NACP, PACPs, UN Partners, APLHIV), including Key Population representatives, CCM, MoNHSR&C