



National AIDS Control Organisation

India's Voice against AIDS

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Ministry of Health & Family Welfare  
Government of India



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# HSS PLUS 2019

# CENTRAL PRISON SITES



National AIDS Control Organisation and All India Institute of Medical Sciences  
Ministry of Health & Family Welfare, Government of India


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**HSS PLUS 2019**  
**CENTRAL  
PRISON  
SITES** 





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## FOREWORD

WHO and UNAIDS have recognised inmates in prisons as one the groups who are at higher risk of acquiring HIV infection. Research has concluded generally higher prevalence of HIV among incarcerated population than in the general population. However, data on HIV prevalence among incarcerated population in India has been scarce in past.

Inmates at central prisons were included as 8<sup>th</sup> population group for the first time in 2019 round of HIV surveillance under India's National AIDS Control Programme (NACP) to monitor the level and trend of the HIV/AIDS epidemic among them. The results have been consistent with global knowledge with HIV prevalence among the surveillance prison population being almost 8 times higher than in the general adult population.

As of December 2017, around 4.51 lakh people were in prison. In the same year, around 16.56 lakh people were admitted in various jails of the country. Findings from the first round of surveillance in the population will be helpful to augment evidence driven national AIDS response to a million of inmates in a year.

The National AIDS Control Programme, in consultation with UNAIDS, WHO, UNODC and other key stakeholders has been implementing comprehensive package of services as recommended by UN agencies in 864 prisons. Besides, 310 Swadhar Homes, Ujjawala Homes and Short-stay Homes are also covered with comprehensive package of services under NACP. In view of the findings from first round of Surveillance, the expansion needs to be further fast-tracked to saturate the universe of around 1400 prisons across country.

India is committed to achieve 'End of AIDS' as a public health threat by 2030 across the location and population. As evident, inmates in the prison and other closed settings are one of the population group which are affected more than the general population. I am confident that evidences on HIV/AIDS related knowledge, service uptake, behaviours and HIV prevalence generated through surveillance among prisoners will be used extensively by policy makers, programme managers, civil societies and researchers to further augment the comprehensive interventions towards prevention, identification and treatment of HIV infections in prison settings.

Sanjeeva Kumar





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## PREFACE



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National AIDS Control Programme (NACP), fully funded by the Government of India, has one of the largest HIV surveillance systems across the globe. This surveillance system not only provides evidences on the magnitude and directions of HIV epidemic, but also gives information regarding resource allocation as well as impact assessment. The biennial HIV Sentinel Surveillance (HSS) has covered seven population groups in past including pregnant women, single male migrants, long distance truck drivers, female sex workers, men who have sex with men, hijra/transgender people and injecting drug users.

In 2019 round of surveillance, inmates at central jail were included as eighth population group in view of the global recommendations and local evidences. Overall, HIV sentinel surveillance in the group was implemented at 48 central prison sites across 26 States/UTs collecting bio-behavioural data from 18,809 inmates. This technical report presents the results from the first round of HSS 2019 among the inmates at central prison sites. The HIV prevalence in the group is almost 10 times that of the general population with very high level in select states. Especially inmates with a lifetime history of injecting drug use are more affected by HIV than the rest. The report clearly demonstrates the higher prevalence of HIV and related risk behaviours among the inmates.

The implementation of HSS as one of the world's largest surveillance system in the prison settings is the result of a very robust mechanism under the National AIDS Control Programme. Under the leadership of Dr Shobini Rajan (Assistant Director General, National AIDS Control Organisation, MoHFW), the system is supported by seven government public health institutes including AIIMS (New Delhi), ICMR-NIMS (New Delhi), ICMR-NARI (Pune), ICMR-NIE (Chennai), ICMR-NICED (Kolkata), PGIMER (Chandigarh) and RIMS (Imphal). The State AIDS Control Societies, under the leadership of Project Directors and State's prison systems under the leadership of Inspector/Director General of Prisons, took the ownership of implementing this surveillance supported in a very sentinel but time-bound manner. We acknowledge the role of each stakeholder in timely completion while ensuring highest possible quality standards of this very important activity.

Inmates at prisons are not closed off worlds. On one hand, many of the inmates stay only for a short period in prison and return to their families and on the other hand many people (including prison staff, health personnel, and prisoners' family members, etc.) enter and leave prisons every day. A healthy inmate will not only be productive for himself/herself but will also lead to public health benefits to the wider community. I am confident that this technical report will be used by all stakeholders, including the prison health systems, in further augmenting the HIV/AIDS prevention detection-treatment activities among inmates in prisons.

  
Alok Saxena

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## MESSAGE

The HIV Sentinel Surveillance (HSS) in India has completed more than 20 years now. We started HSS in India in 1998 with 176 sentinel sites among antenatal clinic, sexually transmitted diseases clinic, injecting drug users, female sex workers and tuberculosis clinic. Gradually other high risk groups and bridge population were included in HSS and from this round, prison population has also been included. Prisoners are one of the risk group for HIV worldwide due to their exposure to various risk factors in prison including possible sexual activity and injection drug uses. Sharing needle for drug use and unavailability of condoms increase the risk of HIV transmission among prisoners. Universal access to HIV prevention, treatment and support should reach this population as well.

In this regard, NACO started HSS at 50 central prisons across India during 16<sup>th</sup> round of HSS. For the first time, we have successfully completed the HIV Sentinel Surveillance in Central Prison Sites in India. The addition of prisoners as one of the risk groups for surveillance has made HSS in India among the most comprehensive surveillance system for HIV worldwide.

This report is a result of collective efforts from many experts like Dr DCS Reddy (Independent Technical Expert), Dr Arvind Pandey (Advisor, NIMS-ICMR New Delhi) and Dr Shashi Kant (Head of Department, CCM, AIIMS), Dr Shobini Rajan (ADG, NACO) and Dr Pradeep Kumar (Program Officer, Surveillance, NACO). It was because of their insight and experience that we were able to start HSS among prisoners from this round.

I take this opportunity to congratulate the Regional Institutes and State AIDS Control Societies for successfully completing the surveillance in time. I would also like to thank the Central Team Members, State Surveillance Team members and various experts for providing supportive supervision to the selected prisons as a quality control measure.

I also acknowledge our international partners WHO India, UNAIDS India and CDC India for their technical support and involvement in the planning implementation of HSS among Prisoners.

This report will be useful for all the stakeholders involved in control of HIV epidemic.

Sanjay K. Rai





## MESSAGE

HIV Sentinel Surveillance (HSS) plays an instrumental role in building a deeper understanding of the level and trend of the HIV epidemic, the geographical spread and communities most affected. HSS has been and will continue to be the cornerstone of India's national AIDS response. It provides the evidences and insights on the changing dynamics of the epidemic and has guided the programme response according to specific epidemiological situation by providing robust estimates of HIV prevalence and trends by population groups at the national and state level.

National AIDS Control Organisation (NACO) of India established the HSS in 1992, and expanded it across the country in 1998, to systematically monitor the epidemic among ANC and STD clinic attendees and select high-risk groups. The Indian HSS is one of the largest in the world and aligned with the latest WHO recommendations.

NACO has been implementing the biennial HSS to measure the HIV level and trend among seven population groups including pregnant women, single male migrants, long distance truck drivers, female sex workers, men who have sex with other men, transgender people and injecting drug users. I congratulate NACO for further improving the HSS by adding 'prison inmates' as the eighth group, based on recommendations of the National Strategic Plan (NSP) on HIV/AIDS 2017-2024.

HIV Surveillance among prison inmates was implemented at 50 central prisons during 2019 round of HSS with the objective to monitor the level and trends of HIV prevalence and related risk behaviours over time. The findings will provide critical inputs to the National AIDS Control Programme (NACP) and its collaborators in planning, implementing and evaluating national responses among inmates in prisons.

Given the government's focus on expanding services under the ambit of Universal Health Coverage (UHC), evidences will be needed to ensure that no one is left behind in terms of access to prevention, treatment and care services. HSS will undoubtedly continue to make a significant difference by guiding the NACP to meeting the target of ending AIDS as a public health threat by 2030.

WHO is committed to continue supporting NACO in adapting its programme response and to further strengthen its HIV surveillance system.

Dr Bekedam, Hendrik Jan





## MESSAGE

India's National AIDS Control Organisation (NACO) is exemplary in its strong focus on generating and using an array of epidemiological, behavioural, programmatic data and analysis to inform programme planning, prioritization, monitoring, and resource allocation since the early phases of the National HIV response. In this field of Strategic Information, UNAIDS is pleased to have partnered with NACO over the years and continue to do so to ensure that the latest and most robust, geographically and population-wise representative data are available for decision-making.

A key source of information on the HIV epidemic across country is HIV Sentinel Surveillance (HSS) which, in conjunction with HIV estimates, provides a wealth of information on the burden and trend of the epidemic among various population groups. We must recognize that the strength of the information which is therein depends on the fact that India has one of the world's largest HSS systems covering various geographies and populations, and that its implementation structure is nationally owned and led by institutes participating in the process at national, regional and state level, with a focus on quality. And with NACO's thrust on evidence informed decision-making, this HSS network has expanded to cover nearly every districts of the country since its inception in 1998.

Till the seventh round of HSS, the following seven distinct population groups were covered: antenatal clinic attendees, migrants, truckers, and key population groups of female sex workers, men having sex with men, transgender people and people who inject drugs. Globally, there is an eighth population groups who are considered at higher risk of HIV: also validated by literature review in India. These are people in prisons and other closed settings and who would need access to HIV care, prevention and treatment services. In recognition of this, under the eight rounds of HSS, India has initiated 'HSS Plus' among prisoners to have better epidemiological and behavioural understanding on this population.

This initiative again reflects NACO's form of focusing on the generation of evidence and using it as a basis to inform decisions and actions. Congratulations to NACO's leadership and Surveillance and estimations division and all the institutes for this high-quality product: HSS Plus among prisoners. I am sure the information presented here will be beneficial for the prisoners first and all the stakeholders involved in the national HIV response as it will serve as the beginning of HIV services delivery in prisons and the roll-out of the 122 rules of the United Nations Standard Minimum Rules for the Treatment of Prisoners: **the Nelson Mandela Rules.**



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Medical Epidemiologist  
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## ACKNOWLEDGEMENT

Inmates at central jails were included as one of the HIV surveillance population groups under the National AIDS Control Programme in India for the first time during 2019 round of Surveillance. It was successfully implemented at 48 sites collecting bio-behavioural data from around 18,800 inmates. It was result of long drawn process that includes multiple round of consultation, preparation of detailed operational guideline, trainings and mentoring of site personnel by regional institutes, excellent coordination by SACS and NGO implementation partners, but above all, a very excellent ownership by prison systems itself. NACO gratefully acknowledges the contributions made by various stakeholders towards successful implementation.

The Technical Resource Group for HIV Surveillance and Estimation is chaired by Shri Sanjeeva Kumar, Special Secretary & DG (NACO & NTEP) and co-chaired by Dr Sanjay Mehendale (Former Addl. DG, ICMR). We place on record our sincere thanks to them for providing vision, insights and support towards development of a robust methodology for HIV Surveillance in prison settings. Shri Alok Saxena (Joint Secretary, NACO) provided guidance and support and communicated with prison authorities at the highest level in States for timely implementation. The technical rigour was ensured by Dr S Venkatesh (the then Addl. DG, NACO), Dr DCS Reddy (Former HoD, Dept of PSM, IMS, BHU), Prof Arvind Pandey (Former Director, NIMS-ICMR, New Delhi) and Dr Shashi Kant (Professor and Head, Centre for community Medicine, AIIMS, New Delhi) through their continuous guidance and inputs in all phases since conceptualization till publication of final results and beyond. NACO's Ethics Committee under the chairpersonship of Dr Srikant P Tripathy (Director, ICMR-NIRT, Chennai) reviewed the ethical considerations and provided their inputs.

Dr Pradeep Kumar (NACO) developed the conceptual framework, methodology, operational manual and the report capturing the key findings of HSS Plus among inmates in central jails as per the vision of TRG on Surveillance and Estimation and under the guidance of key technical experts. During the process, HIV Surveillance team at AIIMS, New Delhi (Dr Sanjay Rai, Dr Shreya Jha, Dr Priyanka Kardam, Ms Bharti Gaur), ICMR-NARI, Pune (Dr Sheela Godbole, Dr Sayali Kalme, Mr Michael Pereira), ICMR-NIE, Chennai (Dr A. Elangovan, Dr Santhakumar Aridoss), ICMR-NICED, Kolkata (Dr M.K. Saha, Dr Subrata Biswas), PGIMER, Chandigarh (Dr P.V.M. Lakshmi, Ms Chandrakanta) and RIMS, Imphal (Dr T Gambhir, Dr Manihar Singh) shared field experiences, critically reviewed the documents and tools towards their finalization and led the

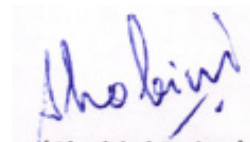
field training and supervision. Dr Arvind Kumar (NACO) coordinated field implementation. Ms Vinita Verma (NACO) facilitated firming up of ethical considerations. Mr Sudarshan Mishra developed the database design for the population group under Strategic Information Management System (SIMS) of NACP. The M & E team at SACS under the leadership of their Project Directors coordinated with all stakeholders ensuring successful implementation. NACO acknowledges the contribution of each towards successful implementation of the first round of surveillance among prison population.

The implementation of the surveillance among prison population would not have been successful without the openness, ownership and excellent support of the prison authorities. NACO gratefully acknowledges Inspector General/Director General (Prisons) in all implementing States and prison wardens at all of the implementing sites for their excellent contribution in timely completion of this activity.

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Programmatic context and support have been provided by Dr R.S. Gupta (Former DOG, NACO), Dr Naresh Goel (DOG, NACO), Dr Anoop Kumar Puri (DOG, NACO) and Dr Bhawani Singh Kushwaha (DD, NACO). Mr Abraham Lincoln (NACO) coordinated various activities and provided critical technical insights at various phases.

Last but not the least, the credit for successful implementation goes to our site personnel which ensured the timely completion of this activity in a very sensitive ecosystem while adhering to best possible quality standards. NACO sincerely thanks all the field personnel engaged in this activity for their contribution in implementing first round of Surveillance among the inmates at central prisons.



Shobini Rajan



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# Abbreviations

|        |  |
|--------|--|
| AIIMS  | All India Institute of Medical Sciences        |
| ART    | Anti-Retroviral Therapy                        |
| CI     | Confidence Interval                            |
| DAPCU  | District AIDS Prevention Control Unit          |
| EC     | Ethics Committee                               |
| FSW    | Female Sex Worker                              |
| HCTS   | HIV Counselling and Testing Services           |
| HSS    | HV Sentinel Surveillance                       |
| H/TG   | Hijra/Transgender people                       |
| ICMR   | Indian Council of Medical Research             |
| ICTC   | Integrated Counselling and Testing Centres     |
| ICF    | Informed Consent Form                          |
| IDU    | Injecting Drug User                            |
| MSM    | Men having Sex with Men                        |
| NACO   | National AIDS Control Organisation             |
| NACP   | National AIDS Control Programme                |
| NI     | National Institute                             |
| NIMS   | National Institute of Medical Statistics       |
| N/S    | Needle Syringe                                 |
| NSP    | Needle Syringe Programme                       |
| PIS    | Patient Information Sheet                      |
| RI     | Regional Institute                             |
| RPR    | Rapid Plasma Reagin                            |
| SACS   | State AIDS Control Society                     |
| SIMS   | Strategic Information Management Unit          |
| SRL    | State Reference Laboratory                     |
| TRG    | Technical Resource Group                       |
| UNAIDS | Joint United Nations Programme on HIV and AIDS |
| UT     | Union Territory                                |
| WHO    | World Health Organisation                      |

# Executive Summary

HIV Sentinel Surveillance (HSS) is implemented biennially to monitor the level and trend of HIV epidemic among seven groups including pregnant women, migrants, truckers, Female Sex Workers (FSWs), Men having Sex with Men (MSM), hijra/transgender people and Injecting Drug Users (IDUs). Globally, HIV interventions at correctional institutions is strongly recommended with 'prisoners' identified as one of the groups at higher risk of HIV infection. In India, a systematic literature review has concluded that HIV prevalence in prisons was higher than that in general community. In view of global recommendations and local evidences, prisoners were included as the eighth surveillance population group under National AIDS Control Programme (NACP) during the 2019 round of Surveillance. As a part of the HSS in the group, both behavioural and biological data were collected (HSS Plus). It was implemented at 48 surveillance sites across 26 States/UTs collecting bio-behavioural data from 18,809 inmates.

Overall, the mean age of the inmates recruited in HSS Plus 2019 was 36.1 years. Almost one third of all the recruited inmates reported to be never married while a small proportion (6%) were divorced/separated/widower. Most (83%) of them were literate with around one-fifth (20%) had more than 10 years of education.

Overall, three-fourth of inmates recruited in HSS Plus 2019 reported to be aware of HIV/AIDS. Having one un-infected sexual partner and consistent condom use as mode of HIV prevention was identified by 57% and 63% of the respondents respectively. Correct knowledge that HIV cannot be transmitted by mosquito bites or through sharing a meal with HIV infected person was reported by 49% and 58% of the inmates respectively. Two thirds (68%) were aware that HIV can be transmitted by needle sharing. Slightly more than half (52%) reported that a healthy-looking person may have HIV/AIDS. Overall, only around one fourth (26%) of sampled inmates had comprehensive and correct knowledge about HIV/AIDS.

Less than half (47%) of total recruited inmates were ever tested for HIV. Twenty nine percent reported to be tested in last 12 months. Fifty seven percent of HIV infected inmates reported to be aware that they are HIV positive. Among inmates who reported to be aware that they are HIV positive, 82% were on ART. Overall, less than half of HIV infected inmates were on ART.

Overall, around 9% of the recruited inmates reported that inmates do inject drugs for pleasure in their prison. When asked about their own behaviour of injecting drugs for pleasure, a small proportion (4%) of total recruited inmates reported to have had lifetime experience of injecting drug for pleasure. More than half (58%) inmates with history of injecting drug for pleasures reported to use sterile needle/syringe during their last injecting episode while 40% of them reported sharing of used needle/syringe.

Overall, around 16% of the recruited inmates reported that inmates in their prison do have the sexual intercourse with other prisoners. More than four-fifth of inmates reported to ever have had sex with a partner. Among the inmates who ever had a sex, the last partner with whom they reported to had sex was almost universally reported as a female partner including 6% paid female partner. Reported condom use during last sex act with a paid female partner was 50%.

Overall, HIV prevalence was 2.1% (95% Confidence Interval {CI}: 1.9%-2.3%) while Syphilis sero-positivity was 0.4% (95% CI: 0.3%-0.5%) among the recruited inmates. HIV prevalence in the group was as high as 21% in Mizoram. In Punjab, HIV prevalence was at 7% in the group. In Assam, Chandigarh and Nagaland, HIV prevalence was almost two times that of national average.

.....|  
**Fifty seven percent of HIV infected inmates reported to be aware that they are HIV positive.**  
.....|



# 01

## Introduction

National AIDS Control Organisation (Ministry of Health & Family Welfare, Government of India) is the nodal organisation for NACP in India. The programme provides a comprehensive package of prevention-detection-treatment services with robust strategic information management as a critical enabler across different population groups including those in the correctional institutions.

In the capacity of critical enabler of strategic information management activities, NACO has been implementing the biennial HIV Sentinel Surveillance (HSS) survey to measure the rates of HIV infection and trends among seven population groups including pregnant women, single male migrants, long distance truckers, Female Sex Workers (FSWs) Men who have Sex with Men (MSM), hijra/transgender (H/TG) people and IDUs. This is one of the world's largest HSS systems that provides evidences on the magnitude and directions of HIV epidemic in different population groups and thus informs on resource allocation as well as impact assessment.

National Strategic Plan (NSP) of NACP has highlighted responding to the HIV/AIDS epidemic among 'at-risk' populations as a critical element to achieve 'End of AIDS' by 2030. Globally, HIV interventions at correctional institutions is strongly recommended with 'prisoners' identified as one of the groups at higher risk of HIV infection. UNAIDS paper titled "On the Fast-Track to end the AIDS by 2030: Focus on location and population" states that the key populations at an increased risk of

acquiring HIV are overrepresented in the prison population because of the sexual orientation of the inmates, their gender expression, occupation or criminalization of behaviour and recommends introduction of full package of services in the prison population.

In India, a meta-analysis has concluded that HIV prevalence in prisons was higher than that in general community<sup>1</sup>. Also, the prevalence of same sex activities was higher among prisoners compared to the same in general community. In another study among the inmates of a district jail in Northern India, it was observed that there was high prevalence of same sex activities, history of buying sex, multi-partnership as well as injecting drug use with high prevalence of Syphilis and Hepatitis<sup>2</sup>.

In view of available evidences, National AIDS Control Organisation (NACO) has initiated HIV interventions among prison settings. In December 2017, NACO organized a national consultation to improve the ongoing prison HIV interventions. The consultation was attended by all the key stakeholders including those from Ministry of Home Affairs, Narcotics Control Bureau, World Health Organisation and United Nations Office on Drug and Crime. Expediting establishment of surveillance sites in prison was one of the key recommendations of this national consultation<sup>3</sup>. Therefore, prisoners were included as the eighth population group for surveillance under NACP.

HIV Surveillance among prisoners was planned for implementation at 50 central prisons during 2019

<sup>1</sup> Dolan, Kate, Ben Kite, Emma Black, Carmen Aceijas, and Gerry V. Stimson. "HIV in prison in low-income and middle-income countries." *The Lancet infectious diseases* 7, no. 1 (2007): 32-41.

<sup>2</sup> Singh, Sarman, Rajendra Prasad, and Alok Mohanty. "High prevalence of sexually transmitted and blood-borne infections among the inmates of a district jail in Northern India." *International journal of STD & AIDS* 10, no. 7 (1999): 475-478.

<sup>3</sup> Report of the national consultation on HIV intervention in prisons and other correctional institutions (2017), National AIDS Control Organisation, Ministry of Health & Family Welfare, Govt. of India, New Delhi. Available for download at <http://naco.gov.in/sites/default/files/Report-National%20Consultation%20on%20HIV%20intervention%20in%20Prisons%20and%20other%20Closed%20Settings.pdf>

round of HSS with the objectives of monitoring the level and trends of HIV prevalence and related risk behaviours over time among the inmates in central jails. State-wise number of HSS Plus sites [prison sites added in surveillance activity] planned and implemented is presented in Table 1. The HSS Plus 2019 among prisoners could not be implemented in the State of Bihar.

The current report provides descriptive results from the HSS Plus 2019 among inmates at central prison sites. The findings are expected to provide

critical inputs to the NACP and its collaborators in planning, implementing and evaluating national responses among inmates in prisons in future. Chapter 2 describes the implementation structure of the HSS Plus 2019. The methodological overview of the HSS Plus 2019 among prisoners has been provided in Chapter 3, and the main findings by State are presented in Chapter 4 of the report. Chapter 5 discusses the key findings of the report in context of the NACP.

**Table 1: State/UT wise prison sites for HSS Plus 2019 among inmates**

| State/UT         | Total     |
|------------------|-----------|
| Assam            | 2         |
| Andhra Pradesh   | 2         |
| Bihar            | 3         |
| Chandigarh       | 1         |
| Chhattisgarh     | 1         |
| Delhi            | 2         |
| Gujarat          | 2         |
| Haryana          | 1         |
| Himachal Pradesh | 1         |
| Jharkhand        | 2         |
| Karnataka        | 3         |
| Kerala           | 1         |
| Maharashtra      | 4         |
| Manipur          | 1         |
| Mizoram          | 1         |
| Madhya Pradesh   | 3         |
| Nagaland         | 1         |
| Odisha           | 2         |
| Punjab           | 3         |
| Rajasthan        | 3         |
| Tamil Nadu       | 3         |
| Telangana        | 1         |
| Tripura          | 1         |
| Uttarakhand      | 1         |
| Uttar Pradesh    | 2         |
| West Bengal      | 3         |
| <b>India</b>     | <b>50</b> |

National Strategic Plan (NSP) of NACP has highlighted responding to the HIV/AIDS epidemic among 'at-risk' populations as a critical element to achieve 'End of AIDS' by 2030. Globally, HIV interventions at correctional institutions is strongly recommended with **'prisoners' identified as one of the groups at higher risk of HIV infection.**

# 02 Implementation structure

HIV epidemic monitoring has a robust structure for planning, implementation and monitoring at national, regional and State levels since its inception. The structure and key functions of each agency involved, which continued during 2019 round of HIV surveillance including inmates at selected central prisons [HSS Plus 2019], are described below and depicted in figure 1.

**National level:** The NACO is the nodal agency for guiding the epidemic monitoring under NACP. The Technical Resource Group (TRG) on Surveillance and Estimation, comprising experts from the fields of epidemiology, demography, surveillance, biostatistics, and laboratory services, advises NACO on the broad strategy for HIV Surveillance and Estimations. Two national institutes—All India Institute of Medical Sciences (AIIMS), New Delhi and Indian Council of Medical Research (ICMR)—National Institute of Medical Statistics (NIMS), New Delhi—support national level activity including planning and coordination. In addition, the central team for HSS, which is coordinated by AIIMS, New Delhi comprises independent experts who provides support in training and supervision. Organisations such as the World Health Organisation (WHO) and the Joint United Nations Programme on HIV and AIDS (UNAIDS) provides technical assistance.

**Regional level:** Six public health institutes in India have been identified as regional institutes (RIs) for HSS to provide technical support to the State AIDS Control Societies (SACS) for all epidemic monitoring activities, including identification of new surveillance sites, training, monitoring and supervision, and improving the quality of the data collected and their analysis. Data entry is another function performed by RIs. Core teams embedded within each RI include two epidemiologists/public health experts and one

microbiologist, who are supported by one project coordinator, two research officers, one computer assistant/data manager, and between four and ten data entry operators, depending on the volume of data entry.

**State level:** SACS is the primary agency responsible for implementation of HIV surveillance activities. Every State has a surveillance team consisting of public health experts and microbiologists who support SACS in training, supervision, and monitoring of the personnel involved in sentinel surveillance. State Surveillance Teams (SSTs) are formed by RIs in consultation with SACS.

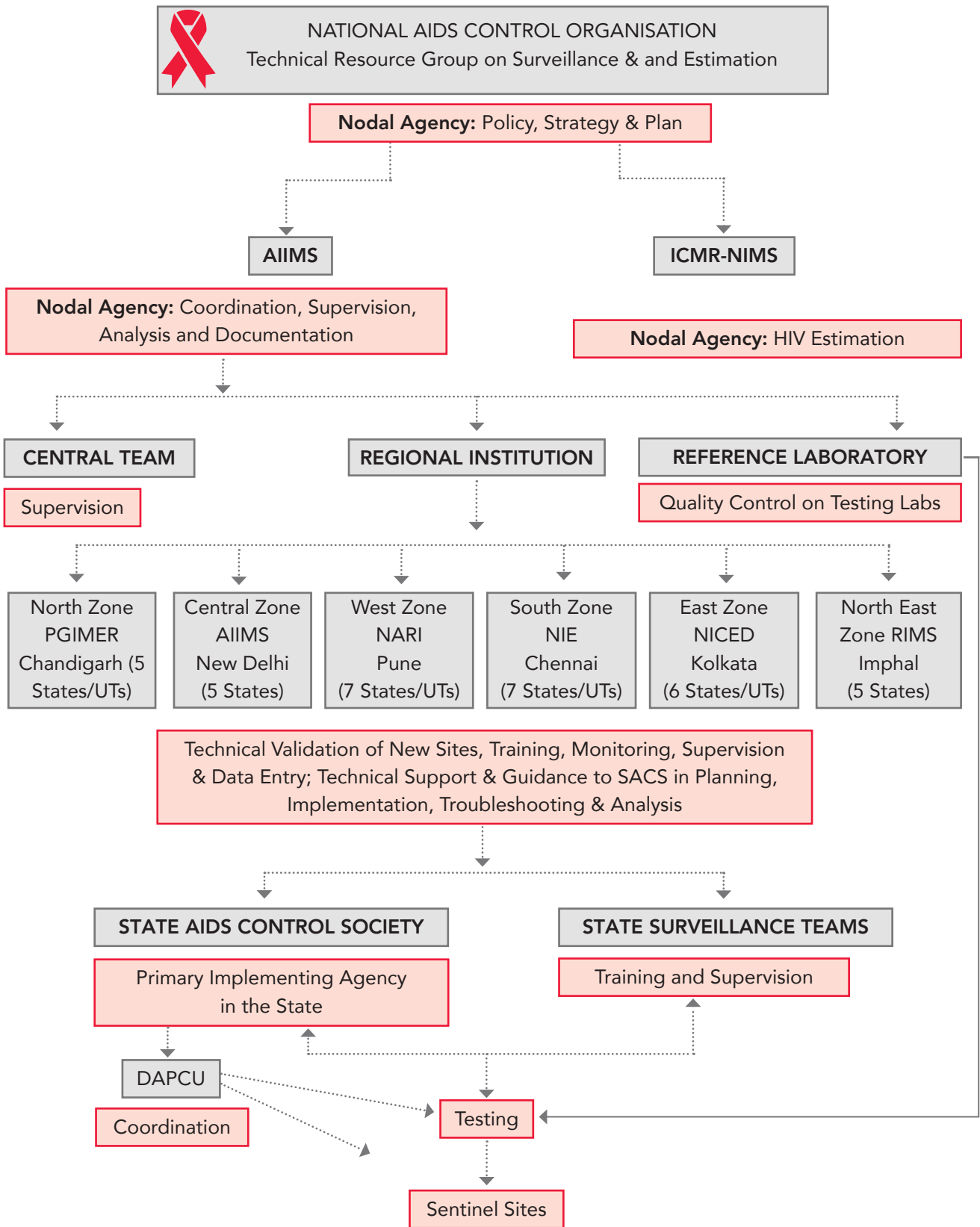
**District level:** In districts with functional District AIDS Prevention and Control Units (DAPCUs), the DAPCU staff is involved in the coordination of HSS activities at the sentinel sites and the associated testing labs.

**Laboratory network:** Laboratory support to HSS is provided by a network of testing and reference laboratories. The reference laboratories provide external quality assurance by repeat testing of all HIV-positive blood specimens and 5% of the HIV negative specimens collected during surveillance among prisoners.



**Every State has a surveillance team consisting of public health experts and microbiologists who support SACS in training, supervision, and monitoring of the personnel involved in sentinel surveillance.**

**Figure 1: Implementation structure of HIV epidemic monitoring under NACP**





# 03 Methodology

The 2019 round was the first round of integrated bio-behavioural sentinel surveillance among prisoners under NACP. The surveillance in the group was unique and different from previous rounds of HSS in other groups as it also had an additional brief tool to collect data on HIV/AIDS related knowledge, service uptake and risk behaviours and therefore it has been termed as HSS Plus. The key methodological aspects of the HSS Plus, as approved by NACO's TRG on Surveillance and Estimation (Annexure 1), have been presented in the sections below. The detailed operational manual covering the technical and implementation aspects is available on NACO's website<sup>4</sup>.

## 3.1 Case definition

### Inclusion criteria:

Male convicted/  
undertrial inmates  
in prisons aged 18  
years or above

### Exclusion criteria:

Already approached  
and administered  
informed consent  
once in the current  
round of surveillance

## 3.2 Sample size

HSS Plus 2019 among prisoners aimed to collect bio-behavioural data from 400 respondents at each of the surveillance site over a period of three months. Central jails were selected as site for HSS Plus as they were expected to have enough number of inmates to achieve 400 samples. Also, the central jails were expected to have an operational healthcare structure to facilitate the establishment of a sustainable biennial surveillance system.

## 3.3 Sampling methodology

Simple random sampling method was adopted for HSS 2019 Plus among prisoners. As part of the process, the surveillance sites shared master list of male inmates (convicts/undertrial prisoners). This list contained only (i) inmate unique prisoner ID number, (ii) inmate type (convicts/undertrial) and (iii) age of each inmate. The Regional Institutes (RIs) for surveillance randomly selected 400 inmates from the master list to be approached for participation in HSS Plus. The selected inmates were approached, assessed for eligibility and were administered informed consent if eligible. All sampled and eligible inmates who provided their consent for participation were recruited in HSS Plus. A copy of the informed consent form is placed at Annexure 2.

At HSS Plus sites where the total number of inmates was 500 or less, 'Take All' approach was followed.

## 3.4 Sampling period

For each HSS Plus site, the recommended maximum sampling duration was three months. When a site achieved its allotted target sample size in a period less than three months, collection of samples was stopped at that site. However, the data collection period was extended at some sites, on case to case basis, after reviewing the reasons for delays and feasibility of achieving the desired sample size in a reasonable extension period.

## 3.5 Behavioural data collection

A brief bilingual data form with five sections was used for collection of information (Annexure 3). Individual data forms were used by facility staff

<sup>4</sup> <http://naco.gov.in/sites/default/files/OM%20for%20Central%20prison%20Sites.pdf>

responsible for implementing the HSS Plus to collect the data through one to one interview in a confidential setting. The data form was unlinked anonymous as it did not have any personal identifier and had only surveillance sample ID.

Section one included questions on basic socio-demographic features (age, education, and marital status), imprisonment characteristics (inmate type, duration of current imprisonment and previous history of imprisonment).

The second section had questions on HIV/AIDS knowledge related to transmission, prevention and misconceptions.

The third section had questions pertaining to HIV testing history, result of the last test for those who reported prior HIV testing history and Antiretroviral Therapy (ART) uptake for those who reported to be HIV positive.

Section four had questions pertaining to the injecting drug behaviour. As the injecting drug behaviour are illegal in nature, respondents were first asked about prevalence of the injecting drug behaviours in general in their setting to understand how common the behaviour might be. Subsequently, recruited inmates were asked about their injecting drug behaviours to measure the prevalence of behaviour and related practices among the inmates.

Section five had questions pertaining to the sexual behaviours and condom use practices. Like the injecting drug use practices, respondents were first asked about sexual behaviours of inmates in general followed by their own sexual behaviours and condom use.

### 3.6 Blood specimen collection methods and testing protocol

From the sampled, eligible and consented inmates, serum blood specimens were collected. Two aliquots were prepared from the blood specimen collected: one for the Integrated Counselling and Testing Centre (ICTC) under the routine HIV Counselling and Testing Services (HCTS) of the programme and the second for HSS Plus.

The aliquot for the ICTC was labelled with name, age, ICTC sample number, date of collection, etc. as per the routine practices. It didn't have the surveillance sample ID. The aliquot was tested at linked ICTC for HIV/Syphilis, test report was shared with the inmate and he was linked with treatment services if the result was positive.

The HSS Plus aliquot was labelled only with sentinel site code, sample number and date of collection (unlinked anonymous) and transported to the State Reference Laboratory (SRL) for HIV testing as per the prescribed two-test protocol adopted in HIV surveillance under the programme. The first test was of high sensitivity and second test of high specificity and confirmatory in nature. Second test was done only if the first test was found to be reactive. A sample was declared as positive only when both the test results were reactive. All the HIV positive samples and 5% of HIV negative samples were subjected to repeat testing at serum reference laboratories.

The HSS Plus aliquot was also tested for Syphilis in a two-test protocol– the first test was qualitative, and the second test was quantitative. Second test was done only when the first test was reactive. A sample was declared positive for Syphilis only when the titer during the second test result was  $> 1:8$ .

### 3.7 Ethical considerations

Under the HSS Plus 2019 among prisoners, written informed consent was obtained from sampled and eligible inmates who were willing to participate in the HSS. Patient Information Sheet (PIS), in local language, covered objectives of the sentinel surveillance survey, expectation from the respondent; return of blood sample results, confidentiality and voluntariness. As a part of the process, respondents were shown all the consumables/items used for blood sample collection and were assured that confidentiality would be maintained since any individual's name was not linked to the HSS Plus specimen or data form. No pressure of any form was put on the eligible inmate and he was given free choice to agree or refuse to participate in surveillance.

If the eligible inmate was literate, PIS and the Informed Consent Form (ICF) were given to him to read through them. If the eligible inmate was illiterate, PIS and ICF were read out to him in the presence of a literate witness.

A respondent was asked if he had any questions/doubts or required clarifications. Same was clarified adequately. After addressing all the concerns raised by the respondent, if the respondent did not agree to participate in surveillance, the reason for refusal was enquired and documented.

HSS Plus data form of the consented inmate was handled with utmost confidentiality. Neither filled nor blank data form were handled by anyone outside the surveillance team. The HSS Plus data form was digitalized at Regional Institutes (RIs) using the Strategic Information Management Software (SIMS) under NACP and it was completely unlinked anonymous.

The ethical considerations for HSS Plus for inmates at central prison sites were reviewed by NACO's Ethics Committee (EC). It took a note of the service delivery component of the HSS Plus and recommended that there is no need for EC review in view of it being a service-oriented programme (Annexure 4).

### 3.8 Data management

The bilingual data forms were transported from surveillance site to RI periodically where they were first checked for completeness and accuracy and then entered the HSS module of SIMS.

Laboratory results were shared separately by laboratories periodically in a standard format with RIs. They entered them into SIMS. The SIMS did the linking of laboratory results with the data forms using the unique sample IDs assigned.

Double data entry of each data form was done by two data entry operators in SIMS; the entries were then compared by an in-built tool in the SIMS and all discrepancies identified between the two entries were corrected by consulting the original paper tool. Following this the database was 'frozen' and a cleaned master file was created. For the analysis, only valid records (age as per the eligibility criteria and a HIV test results), were considered.

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The HSS Plus data form was digitalized at Regional Institutes (RIs) using the **Strategic Information Management Software (SIMS) under NACP** and it was completely unlinked anonymous.

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# 04 Findings

HSS Plus 2019 among the inmates in central jails collected information on five aspects. These were: respondent's background characteristics, HIV/AIDS related knowledge, HIV/AIDS related service uptake, injecting drug use practices, sexual behaviour and condom use practices. HSS aliquots of blood specimens collected from the recruited inmates were tested for HIV and Syphilis. This chapter presents State/ UT-wise descriptive analysis of the bio-behavioural data collected.

**Table 2: Response Rate by State/UT-wise**

| State/UT         | Final sample size achieved | Response Rate (%) |
|------------------|----------------------------|-------------------|
| Andhra Pradesh   | 800                        | 90.7              |
| Assam*           | 800                        | -                 |
| Chandigarh       | 400                        | 98.0              |
| Chhattisgarh     | 396                        | 98.5              |
| Delhi            | 804                        | 97.6              |
| Gujarat          | 800                        | 92.1              |
| Haryana          | 800                        | 93.5              |
| Himachal Pradesh | 400                        | 90.9              |
| Jharkhand        | 737                        | 85.6              |
| Karnataka        | 1200                       | 99.0              |
| Kerala           | 400                        | 100.0             |
| Madhya Pradesh   | 1200                       | 98.7              |
| Maharashtra      | 1197                       | 97.6              |
| Manipur*         | 397                        | -                 |
| Mizoram*         | 399                        | -                 |
| Nagaland         | 300                        | 100.0             |
| Odisha           | 717                        | 98.5              |
| Punjab           | 1200                       | 93.3              |
| Rajasthan        | 1200                       | 94.5              |
| Tamil Nadu       | 1200                       | 99.3              |
| Telangana        | 400                        | 96.6              |
| Tripura*         | 400                        | -                 |
| Uttar Pradesh    | 800                        | 81.2              |
| Uttarakhand      | 379                        | 60.2              |
| West Bengal      | 1083                       | 92.0              |
| <b>India</b>     | <b>18809</b>               | <b>93.1</b>       |

\* Response rate not available

## 4.1 Response rate

Table 2 shows State/UT-wise response rates for the 2019 round of HSS Plus at central prison sites. The final sample size of 18,809 was achieved with a response rate of 93%. The response rate was more than 90% in every State/Union Territory (UT) except for Jharkhand, Uttar Pradesh and Uttarakhand.

## 4.2 Respondent's profile

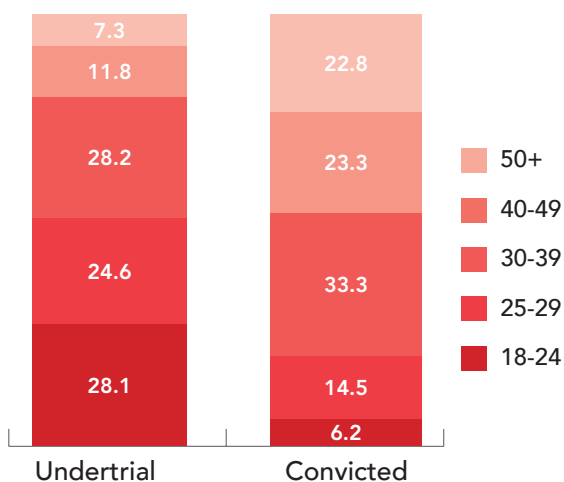
Overall, the mean age of the inmates recruited in HSS Plus 2019 was 36.1 years. Recruited inmates in Uttar Pradesh were oldest with mean age of 49 years followed by those in Kerala (mean age 45 years). Odisha had the youngest inmate among central prison HSS Plus sites with mean age of 31 years. State/UT-wise respondents' profile is presented in Tables 3 and 4.

Almost one-third of all the recruited inmates reported to be never married while a small proportion (6%) were divorced/ separated/ widowers. In Chandigarh, half were never married while in Delhi and Haryana, 43-46% respondents reported to be never married. In Telangana and Uttar Pradesh, 81-83% of respondents reported to be currently married. In Mizoram, almost two fifth (38%) of inmates reported to be divorced/separated/widowers. In Andhra Pradesh, Gujarat, Madhya Pradesh and Kerala, 13-16% of inmates were divorced/separated/ widowers at the time of their interview.

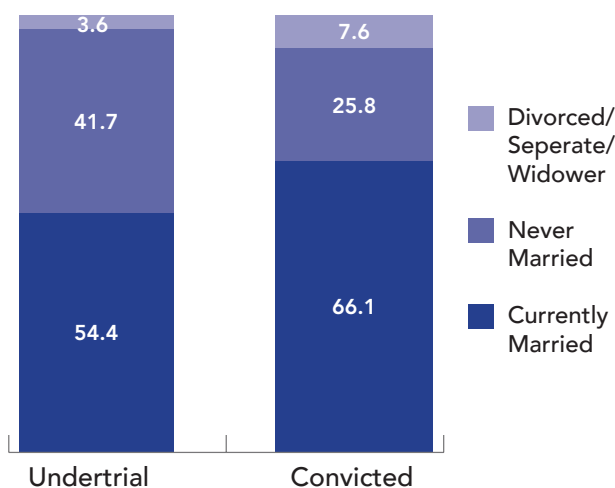
Most (83%) were literate with around one-fifth (20%) had more than 10 years of education. Almost one third (32%) of the inmates in Andhra Pradesh were illiterate followed by 31% in Uttar Pradesh, 26% in West Bengal and 25% in Rajasthan. In Mizoram, Kerala, Tamil Nadu and Uttarakhand, only 5-6% of the inmates were illiterate.

**Figure 2: Percent distribution of undertrial and convicted inmates by age group, marital and education status**

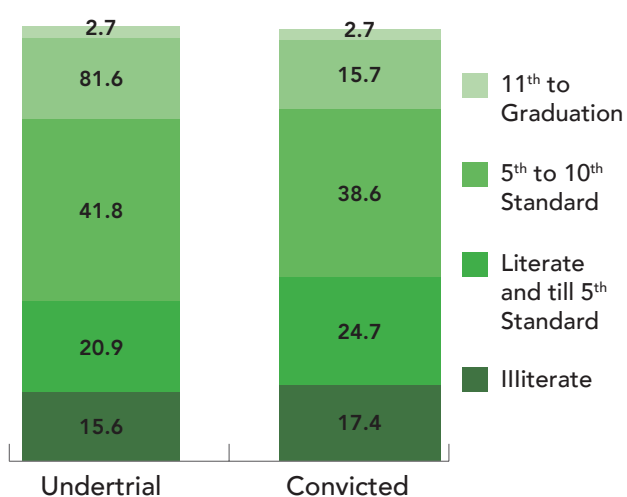
**1. Divorced/Separated/Widower**



**2. Never Married**



**3. Currently Married**



The proportion of the convicted vis-à-vis undertrial inmates in the sample was almost equal in the total sample. In Uttar Pradesh, the sampled inmates were almost universally convicts as sampled central prisons were not used to imprison the undertrial inmates. In Kerala, Madhya Pradesh and Telangana, more than three-fourth (78-82%) of the respondents were convicted inmates. In Delhi, 92% of the recruited inmates were undertrial followed by 88% in Manipur and 86% in Nagaland. In Odisha, 79% of respondents reported to be undertrial inmates. Overall, the undertrial inmates were younger than the convicted ones (Figure 2). While the literacy pattern of undertrial vis-à-vis convicted inmates were similar, 42% of the undertrials inmates were never married in comparison to 26% of the convicted inmates.

Almost two thirds of inmates recruited in HSS Plus 2019 were in prison for one year or more. In Uttar Pradesh, where almost all of the inmates were convicted, 98% were in prison for more than a year. In Gujarat, Himachal Pradesh, Madhya Pradesh and West Bengal, 84-89% of the respondents were in prison for more than a year. On the other spectrum, in Nagaland, more than two thirds (70%) of the inmates were in prison for less than three months followed by 39% in Mizoram and 36% in Assam.

For most (around two thirds) of the recruited inmates, the current imprisonment was their first experience. In Assam, Odisha, Tripura and Uttarakhand, 85-95% of the inmates were in jail for the first time. On the other hand, in Jharkhand, Nagaland and Punjab, 73-80% of the recruited inmates reported to have previous history of the imprisonment.

**For most (around two thirds) of the recruited inmates, the current imprisonment was their first experience.** In Assam, Odisha, Tripura and Uttarakhand, 85-95% of the inmates were in jail for the first time.

**Table 3: Background characteristics of inmates by State and UT**

| State/UT         | N            | Mean age (In completed years) | Marital status (%)* |               |                              | Education Status (%)* |  |  |                                |                          |
|------------------|--------------|-------------------------------|---------------------|---------------|------------------------------|-----------------------|--|--|--------------------------------|--------------------------|
|                  |              |                               | Currently Married   | Never Married | Divorced/ Separated/ Widower | Illiterate            | Literate and till 5 <sup>th</sup> Standard | 6 <sup>th</sup> to 10 <sup>th</sup> Standard | 11 <sup>th</sup> to graduation | Post-Gra duation & above |
| Andhra Pradesh   | 800          | 38.4                          | 66.3                | 19.0          | 14.6                         | 32.4                  | 19.4                                       | 32.1   | 12.9                           | 2.0                      |
| Assam            | 800          | 34.5                          | 56.1                | 36.6          | 7.1                          | 21.4                  | 35.1                                       | 33.1   | 9.4                            | 0.8                      |
| Chandigarh       | 400          | 33.1                          | 47.5                | 50.0          | 2.5                          | 16.5                  | 14.5                                       | 40.5   | 20.3                           | 8.3                      |
| Chhattisgarh     | 396          | 35.6                          | 52.5                | 37.1          | 10.1                         | 7.6                   | 22.7                                       | 51.3   | 16.4                           | 2.0                      |
| Delhi            | 804          | 31.8                          | 53.1                | 46.0          | 0.7                          | 18.5                  | 11.7                                       | 40.5   | 25.1                           | 4.0                      |
| Gujarat          | 800          | 37.2                          | 54.1                | 30.1          | 15.6                         | 17.9                  | 19.4                                       | 46.6   | 11.8                           | 4.0                      |
| Haryana          | 800          | 34.3                          | 54.6                | 42.6          | 2.3                          | 11.5                  | 16.0                                       | 41.6   | 28.3                           | 2.1                      |
| Himachal Pradesh | 400          | 38.4                          | 66.3                | 31.0          | 2.5                          | 13.0                  | 17.8                                       | 44.3   | 22.0                           | 3.0                      |
| Jharkhand        | 737          | 37.5                          | 72.7                | 25.0          | 0.4                          | 10.2                  | 43.6                                       | 21.8   | 11.4                           | 1.5                      |
| Karnataka        | 1200         | 35.2                          | 53.0                | 42.0          | 3.2                          | 20.0                  | 17.8                                       | 38.2   | 21.9                           | 1.6                      |
| Kerala           | 400          | 44.8                          | 58.0                | 28.0          | 13.8                         | 6.3                   | 20.8                                       | 57.5   | 15.0                           | 0.5                      |
| Madhya Pradesh   | 1200         | 37.3                          | 52.2                | 35.3          | 12.5                         | 11.3                  | 36.7                                       | 35.4   | 14.8                           | 1.8                      |
| Maharashtra      | 1197         | 34.5                          | 54.1                | 42.6          | 2.8                          | 12.1                  | 18.4                                       | 46.0   | 20.1                           | 3.1                      |
| Manipur          | 397          | 35.2                          | 55.7                | 39.8          | 4.5                          | 13.6                  | 9.8  | 49.1   | 24.7                           | 2.8                      |
| Mizoram          | 399          | 36.0                          | 29.3                | 32.8          | 37.8                         | 5.8                   | 17.3                                       | 61.9   | 13.8                           | 1.3                      |
| Nagaland         | 300          | 33.6                          | 66.1                | 32.6          | 1.3                          | 17.6                  | 23.3                                       | 44.9   | 12.8                           | 0.9                      |
| Odisha           | 717          | 30.8                          | 59.7                | 40.2          | 0.0                          | 8.5                   | 23.0                                       | 46.0   | 21.9                           | 0.4                      |
| Punjab           | 1200         | 34.2                          | 61.9                | 33.9          | 3.9                          | 17.2                  | 15.3                                       | 47.8   | 18.5                           | 1.1                      |
| Rajasthan        | 1200         | 34.7                          | 61.9                | 32.5          | 5.6                          | 25.1                  | 15.1                                       | 35.7   | 16.7                           | 7.4                      |
| Tamil Nadu       | 1200         | 36.1                          | 69.3                | 29.8          | 0.8                          | 4.8                   | 19.1                                       | 53.8   | 18.9                           | 3.3                      |
| Telangana        | 400          | 36.8                          | 82.5                | 17.0          | 0.3                          | 8.8                   | 27.8                                       | 43.5   | 15.0                           | 4.5                      |
| Tripura          | 400          | 38.2                          | 67.0                | 30.5          | 2.5                          | 23.5                  | 18.0                                       | 41.8   | 14.8                           | 2.0                      |
| Uttar Pradesh    | 800          | 48.8                          | 81.4                | 18.1          | 0.4                          | 30.9                  | 33.9                                       | 20.8   | 11.9                           | 2.6                      |
| Uttarakhand      | 379          | 36.4                          | 63.1                | 36.9          | 0.0                          | 6.1                   | 23.0                                       | 46.7   | 19.5                           | 3.7                      |
| West Bengal      | 1083         | 35.7                          | 65.9                | 26.9          | 6.1                          | 25.6                  | 38.0                                       | 24.3   | 9.5                            | 0.8                      |
| <b>India</b>     | <b>18809</b> | <b>36.1</b>                   | <b>60.3</b>         | <b>33.6</b>   | <b>5.7</b>                   | <b>16.5</b>           | <b>22.8</b>                                | <b>40.2</b>                                  | <b>17.1</b>                    | <b>2.7</b>               |

\* May not add up to 100% due to missing responses

**Table 4: Imprisonment characteristics of inmates by State and UT**

| State/UT         | N            | Inmate Type (%)* |             | Duration of current imprisonment (%)* |                    |                | Previous history of imprisonment (%)* |             |                   |
|------------------|--------------|------------------|-------------|---------------------------------------|--------------------|----------------|---------------------------------------|-------------|-------------------|
|                  |              | Undertrial       | Convict     | <3 Months                             | 3 Months to 1 Year | 1 Year or more | Never                                 | One time    | Two times or more |
| Andhra Pradesh   | 800          | 29.4             | 69.4        | 12.5                                  | 15.0               | 71.4           | 71.0                                  | 19.9        | 4.1               |
| Assam            | 800          | 61.9             | 38.0        | 35.5                                  | 23.9               | 40.6           | 88.6                                  | 8.8         | 2.6               |
| Chandigarh       | 400          | 31.5             | 68.3        | 4.0                                   | 22.5               | 73.0           | 76.3                                  | 12.5        | 11.0              |
| Chhattisgarh     | 396          | 37.1             | 59.3        | 0.8                                   | 30.8               | 68.4           | 83.3                                  | 12.1        | 4.5               |
| Delhi            | 804          | 91.9             | 7.8         | 7.7                                   | 28.1               | 64.2           | 61.3                                  | 19.0        | 19.7              |
| Gujarat          | 800          | 41.9             | 57.9        | 0.4                                   | 11.8               | 87.5           | 84.4                                  | 10.3        | 5.4               |
| Haryana          | 800          | 41.3             | 57.9        | 8.5                                   | 31.4               | 59.1           | 65.9                                  | 17.0        | 15.1              |
| Himachal Pradesh | 400          | 29.0             | 70.8        | 0.5                                   | 10.8               | 88.8           | 52.0                                  | 29.3        | 18.8              |
| Jharkhand        | 737          | 41.5             | 57.7        | 7.5                                   | 24.3               | 60.8           | 19.8                                  | 71.9        | 7.9               |
| Karnataka        | 1200         | 54.8             | 44.8        | 6.7                                   | 25.0               | 68.3           | 79.3                                  | 13.3        | 7.3               |
| Kerala           | 400          | 21.8             | 78.3        | 0.8                                   | 26.5               | 72.8           | 36.8                                  | 41.5        | 21.5              |
| Madhya Pradesh   | 1200         | 22.0             | 77.7        | 0.3                                   | 12.5               | 87.3           | 72.7                                  | 14.5        | 12.8              |
| Maharashtra      | 1597         | 66.2             | 32.5        | 1.8                                   | 28.4               | 69.3           | 79.2                                  | 16.5        | 3.9               |
| Manipur          | 397          | 88.4             | 11.6        | 7.8                                   | 47.9               | 43.3           | 71.3                                  | 18.9        | 9.3               |
| Mizoram          | 399          | 56.6             | 43.1        | 38.6                                  | 21.1               | 40.4           | 70.9                                  | 17.3        | 10.5              |
| Nagaland         | 300          | 85.7             | 14.0        | 70.3                                  | 13.7               | 15.7           | 27.3                                  | 59.7        | 13.0              |
| Odisha           | 717          | 78.7             | 20.5        | 5.6                                   | 50.2               | 43.9           | 86.1                                  | 9.3         | 4.2               |
| Punjab           | 1200         | 48.3             | 50.6        | 2.3                                   | 29.3               | 68.3           | 23.8                                  | 45.2        | 30.9              |
| Rajasthan        | 1200         | 49.0             | 50.8        | 1.6                                   | 25.8               | 72.7           | 73.7                                  | 12.7        | 13.7              |
| Tamil Nadu       | 1200         | 53.8             | 44.7        | 6.4                                   | 44.3               | 49.1           | 46.1                                  | 31.7        | 20.1              |
| Telangana        | 400          | 17.0             | 82.3        | 4.5                                   | 18.8               | 76.0           | 81.0                                  | 12.8        | 4.0               |
| Tripura          | 400          | 38.3             | 61.8        | 22.0                                  | 16.5               | 61.5           | 85.3                                  | 12.0        | 2.8               |
| Uttar Pradesh    | 800          | 0.1              | 99.6        | 0.4                                   | 1.6                | 97.8           | 76.6                                  | 17.3        | 6.1               |
| Uttarakhand      | 379          | 52.0             | 48.0        | 5.0                                   | 25.6               | 69.4           | 95.3                                  | 2.6         | 2.1               |
| West Bengal      | 1083         | 64.7             | 34.1        | 4.3                                   | 11.2               | 84.1           | 58.6                                  | 34.3        | 6.3               |
| <b>India</b>     | <b>18809</b> | <b>49.1</b>      | <b>50.2</b> | <b>7.7</b>                            | <b>24.3</b>        | <b>67.5</b>    | <b>66.2</b>                           | <b>22.3</b> | <b>10.8</b>       |

\* May not add up to 100% due to missing responses



### 4.3 HIV/AIDS related knowledge

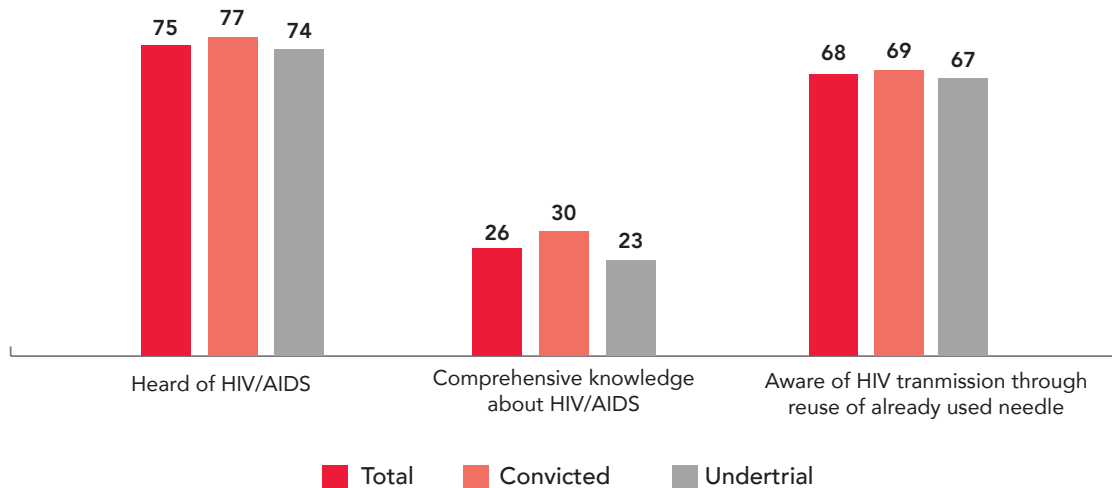
Overall, three-fourths of inmates recruited in HSS Plus 2019 reported to be aware of HIV/AIDS. Having one uninfected sexual partner and consistent condom use as mode of HIV prevention was identified by 57% and 63% of the respondents respectively. Correct knowledge that HIV cannot be transmitted by mosquito bites or through sharing a meal with HIV infected person was reported by 49% and 58% of the inmates respectively. Two thirds (68%) were aware of that HIV can be transmitted by needle sharing. Slightly more than half (52%) reported that a healthy-looking person may have HIV/AIDS. Overall, only around one fourth (26%) had comprehensive and correct knowledge about HIV/AIDS<sup>5</sup>. The pattern of HIV/AIDS awareness, transmission risk through used needle and comprehensive knowledge was almost similar among convicts' vis-à-vis undertrials (Figure 3). State/UT-wise status of inmates about HIV/AIDS related knowledge is presented in Table 5.

State/UT-wise, awareness about HIV/AIDS among inmates was almost universal in Kerala (99%) and Mizoram (97%) while in Himachal Pradesh, almost 93% were aware.

Chandigarh, Gujarat, Haryana, Punjab, Tamil Nadu, Telangana and Uttar Pradesh were other States/UT where 80-90% of inmates reported to be aware of HIV/AIDS. In Jharkhand, less than half (45%) of the inmates reported to be aware of HIV/AIDS. Chhattisgarh, Karnataka and Manipur were other States where 53-57% of inmates were aware of HIV/AIDS.

Knowledge that a person can get HIV by using an injecting needle that someone else has already used was highest in Mizoram (91%). In Chandigarh, Gujarat, Himachal Pradesh, Kerala and Punjab, 84-88% of inmates reported to be aware of HIV transmission risk through reuse of already used needles. In Manipur, 50% of inmates reported to be aware of transmission risk through used needles while in Assam, around two thirds (65%) were aware of the same. In Nagaland, 75% of inmates were aware of this risk while in Delhi 65% reported to be aware of this risk.

Figure 3: Knowledge about HIV/AIDS among inmates (%)



<sup>5</sup> Comprehensive Correct HIV/AIDS Knowledge is defined as ability to correctly knowing the two major ways of preventing the sexual transmission of HIV (i.e. consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chances of getting HIV/AIDS), rejecting two most common misconceptions about HIV transmission and knowing that a healthy-looking person can have HIV/AIDS.



**Table 5. HIV/AIDS related knowledge by State and UT**

| State            | N            | Heard of HIV/AIDS | Awareness about HIV prevention (%) |                              | Had Misconception about HIV transmission (%) |                                       | Aware that healthy looking person may have HIV (%) | HIV can be transmitted through reuse of already used needle (%) | Comprehensive knowledge about HIV (%) |
|------------------|--------------|-------------------|------------------------------------|------------------------------|--|---------------------------------------|--|---|---------------------------------------|
|                  |              |                   | Having one uninfected partner      | Use of condom during sex act | Mosquito bite                                | Sharing meal with HIV infected person |  |   |                                       |
| Andhra Pradesh   | 800          | 74.0              | 62.0                               | 57.0                         | 18.0   | 4.8                                   | 40.4   | 62.8  | 20.6                                  |
| Assam            | 800          | 67.8              | 66.3                               | 65.9                         | 10.1   | 9.0                                   | 39.3   | 65.1  | 30.0                                  |
| Chandigarh       | 400          | 87.0              | 71.0                               | 77.8                         | 23.8   | 10.0                                  | 62.8   | 83.8  | 30.8                                  |
| Chhattisgarh     | 396          | 56.8              | 41.9                               | 47.7                         | 16.4   | 15.2                                  | 41.7   | 51.0  | 15.9                                  |
| Delhi            | 804          | 67.9              | 57.1                               | 45.6                         | 12.4   | 5.8                                   | 8.0  | 65.3  | 1.9                                   |
| Gujarat          | 800          | 88.4              | 70.5                               | 72.8                         | 33.0   | 23.8                                  | 64.8   | 83.6  | 22.4                                  |
| Haryana          | 800          | 81.1              | 71.9                               | 73.0                         | 16.1   | 5.5                                   | 63.4   | 76.3  | 39.6                                  |
| Himachal Pradesh | 400          | 92.8              | 80.0                               | 85.0                         | 27.3   | 11.8                                  | 71.8   | 85.5  | 40.0                                  |
| Jharkhand        | 737          | 45.3              | 31.8                               | 33.8                         | 10.2   | 7.3                                   | 36.0   | 38.3  | 14.0                                  |
| Karnataka        | 1200         | 57.1              | 49.7                               | 50.8                         | 11.3   | 6.4                                   | 34.4   | 40.3  | 22.2                                  |
| Kerala           | 400          | 99.3              | 87.5                               | 81.8                         | 26.0   | 3.3                                   | 67.5   | 87.8  | 39.3                                  |
| Madhya Pradesh   | 1200         | 71.8              | 48.8                               | 56.8                         | 18.9   | 9.5                                   | 42.4   | 61.8  | 18.1                                  |
| Maharashtra      | 1597         | 71.0              | 62.0                               | 66.3                         | 14.3   | 5.5                                   | 52.8   | 67.3  | 35.7                                  |
| Manipur          | 397          | 53.4              | 40.1                               | 42.1                         | 4.3  | 2.3                                   | 30.5   | 50.4  | 20.7                                  |
| Mizoram          | 399          | 97.2              | 76.9                               | 75.7                         | 11.3   | 5.3                                   | 87.7   | 90.7  | 48.4                                  |
| Nagaland         | 300          | 77.3              | 52.3                               | 62.3                         | 7.3  | 23.0                                  | 49.3   | 75.0  | 0.0                                   |
| Odisha           | 717          | 72.2              | 3.8                                | 53.7                         | 15.2   | 14.5                                  | 51.6   | 67.8  | 0.6                                   |
| Punjab           | 1200         | 86.2              | 74.7                               | 81.7                         | 21.9   | 11.8                                  | 68.8   | 85.6  | 43.5                                  |
| Rajasthan        | 1200         | 77.7              | 50.4                               | 63.9                         | 24.7   | 17.4                                  | 44.6   | 70.7  | 16.1                                  |
| Tamil Nadu       | 1200         | 83.3              | 57.1                               | 63.2                         | 8.9  | 4.9                                   | 68.3   | 77.3  | 40.3                                  |
| Telangana        | 400          | 86.8              | 46.5                               | 48.8                         | 24.0   | 37.5                                  | 65.0   | 73.8  | 15.8                                  |
| Tripura          | 400          | 68.8              | 32.5                               | 49.3                         | 27.5   | 15.0                                  | 49.0   | 61.3  | 10.0                                  |
| Uttar Pradesh    | 800          | 84.4              | 79.5                               | 75.3                         | 1.6  | 1.5                                   | 77.4   | 73.8  | 66.3                                  |
| Uttarakhand      | 379          | 72.8              | 30.6                               | 70.4                         | 13.5   | 9.0                                   | 56.2   | 72.3  | 16.1                                  |
| West Bengal      | 1083         | 79.2              | 53.6                               | 67.2                         | 23.4   | 30.5                                  | 49.2   | 64.8  | 16.5                                  |
| <b>India</b>     | <b>18809</b> | <b>75.2</b>       | <b>56.5</b>                        | <b>62.8</b>                  | <b>16.7</b>                                  | <b>11.1</b>                           | <b>51.7</b>  | <b>68.2</b>   | <b>26.4</b>                           |

## 4.4 HIV/AIDS related services uptake

This section describes State/UT-wise information on HIV/AIDS related services uptake in context of history of HIV testing among all recruited inmates as well as status of ART among HIV positive inmates and it has been presented in Table 6.

Overall, less than half (47%) of recruited inmates were ever tested for HIV. Less than one third (29%) reported to be tested in last 12 months. In Mizoram, more than three fourth (78%) of inmates reported to be tested for HIV in last 12 months preceding the survey. In Himachal Pradesh and Madhya Pradesh, around two thirds were tested for HIV in last 12 months while in Tamil Nadu and West Bengal, 55-56% of respondents reported doing so.

Overall, there were 386 (2.1%) inmates who were reactive for HIV in HSS Plus 2019. Out of these, 57% reported to be aware that they are HIV positive. Among inmates who reported to be aware that they are HIV positive, 82% were on ART (Figure 4). Overall, less than half of total HIV infected inmates were on ART.

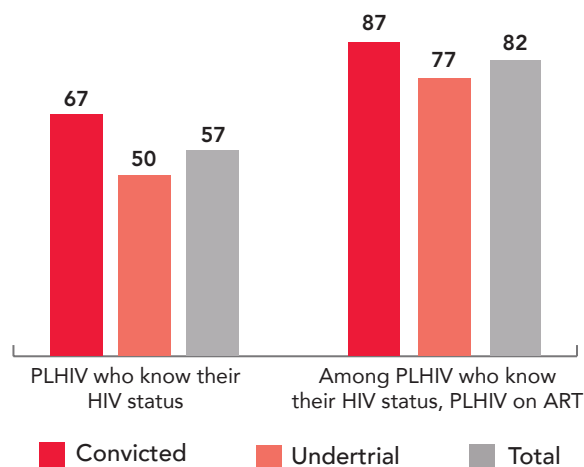
Out of total 9,450 sampled inmates who reported to be convict at the time of interview, 146 (1.5%) were HIV positive. Two thirds of HIV positive convicted inmates were aware that they are HIV positive. Around 87% of the HIV infected convicted inmates, who knew that they are HIV positive, reported to be on ART. Overall, 58% of total HIV infected convicted inmates were on ART.

Overall 9,227 of sampled inmates were undertrial and 2.6% of them were HIV positive. Only half of the HIV infected undertrial inmates were aware that they are HIV positive. Around 77% of the HIV infected undertrial inmates, who knew that they are HIV positive, reported to be on ART. Overall, 39% of total HIV infected undertrial inmates were on ART.

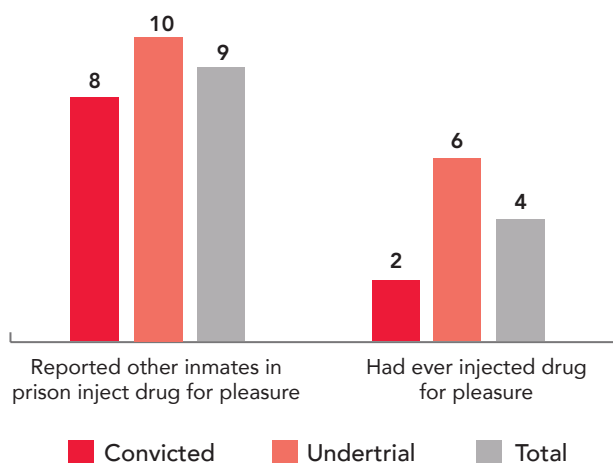
**Table 6: HIV testing history among inmates by State and UT**

| State/UT         | N            | Ever Tested for HIV (%) | Tested for HIV in last 12 months (%) |
|------------------|--------------|-------------------------|--------------------------------------|
| Andhra Pradesh   | 800          | 28.9                    | 7.8                                  |
| Assam            | 800          | 10.8                    | 4.3                                  |
| Chandigarh       | 400          | 71.5                    | 35.8                                 |
| Chhattisgarh     | 396          | 23.7                    | 5.6                                  |
| Delhi            | 804          | 38.3                    | 23.9                                 |
| Gujarat          | 800          | 23.5                    | 9.4                                  |
| Haryana          | 800          | 49.0                    | 40.1                                 |
| Himachal Pradesh | 400          | 86.8                    | 66.5                                 |
| Jharkhand        | 737          | 18.5                    | 8.5                                  |
| Karnataka        | 1200         | 34.9                    | 22.3                                 |
| Kerala           | 400          | 59.0                    | 7.8                                  |
| Madhya Pradesh   | 1200         | 69.4                    | 67.3                                 |
| Maharashtra      | 1597         | 44.0                    | 18.7                                 |
| Manipur          | 397          | 28.7                    | 13.4                                 |
| Mizoram          | 399          | 91.5                    | 78.4                                 |
| Nagaland         | 300          | 50.3                    | 26.7                                 |
| Odisha           | 717          | 28.3                    | 21.6                                 |
| Punjab           | 1200         | 57.9                    | 37.1                                 |
| Rajasthan        | 1200         | 49.5                    | 20.8                                 |
| Tamil Nadu       | 1200         | 70.8                    | 54.8                                 |
| Telangana        | 400          | 36.8                    | 8.8                                  |
| Tripura          | 400          | 27.3                    | 17.5                                 |
| Uttar Pradesh    | 800          | 82.8                    | 30.5                                 |
| Uttarakhand      | 379          | 11.6                    | 5.3                                  |
| West Bengal      | 1083         | 57.3                    | 56.3                                 |
| <b>India</b>     | <b>18809</b> | <b>46.9</b>             | <b>29.3</b>                          |

**Figure 4: Knowledge about their HIV status and ART uptake among inmates (%)**



**Figure 5: Knowledge about injecting drug use behaviour in prison in general and their own injecting drug experiences among inmates (%)**



## 4.5 Injecting drug use practices

HSS Plus 2019 among inmates at central jails enquired about the injecting drug practices. As the injecting drug behaviour are illicit in nature, respondents were first asked about prevalence of the injecting drug behaviours in general in their setting to understand how common the behaviour might be. Subsequently, recruited inmates were asked about their injecting drug behaviours to measure the prevalence of behaviour and related practices among the inmates. State/UT-wise findings on injecting drug use practices are presented in Table 7.

Overall, around 9% of recruited inmates (8% of convicts and 10% of undertrial) reported that inmates in their prison inject drugs for pleasure (Figure 5). In Punjab, 60% of respondents reported that inmates in their prison were injecting drugs for pleasure. In Mizoram (39%), Delhi (35%) and Haryana (20%) also a significant proportion of inmates reported the same.

When asked about their own behaviour of injecting drugs for pleasure, a small proportion (4%) of total recruited inmates (2% of convicts and 6% of undertrials) reported to have had a lifetime experience of injecting any drug for pleasure. In Mizoram, 39% of respondents reported doing so followed by 17% in Manipur and Punjab, 14% in Assam and 11% in Chandigarh.

More than half (58%) inmates with history of injecting drug for pleasures reported to use sterile needle/syringe (N/S) during their last injecting episode (61% among convicts and 57% among undertrials) while 40% of them reported sharing of used needle/ syringe (39% among convicts and 40% among undertrials) (Figure 6). In States with more than 10% of respondents having history of injecting drug for pleasure, 84% in Manipur reported to use sterile needle/ syringe in their last injecting episode followed by 64% in Chandigarh, 68% in Punjab, 58% in Mizoram and 28% in Assam.

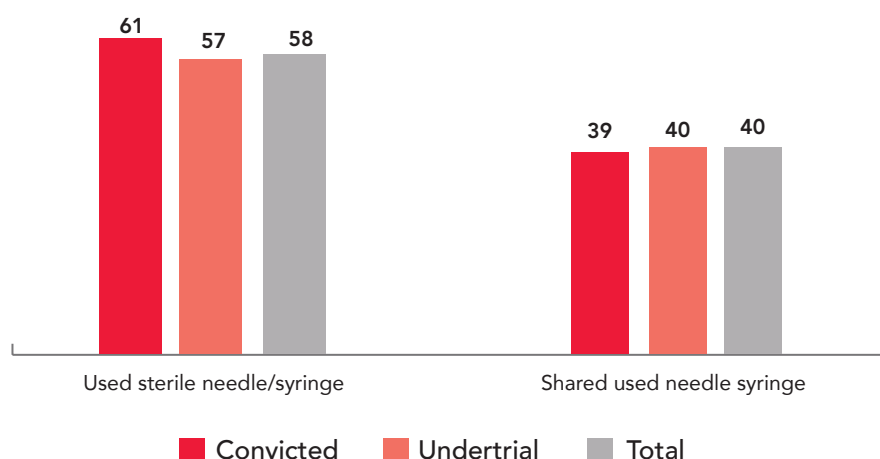
In States with more than 10% of respondents having history of injecting drug for pleasure, **84% in Manipur** reported to use sterile needle/syringe in their last injecting episode followed by **64% in Chandigarh, 68% in Punjab, 58% in Mizoram and 28% in Assam.**

**Table 7: Injecting drug use practices among inmates by State and UT**

| State/UT         | N            | Inmates in prison inject drug for pleasure (%) | Ever injected drug for pleasure (%) | When injected last time (%) *#@ |   |   |                      | Use of sterile N/S when injected last (%)** | Sharing of N/S when Injected last (%)** |
|------------------|--------------|--|-------------------------------------|---------------------------------|---|---|----------------------|---|---|
|                  |              |  |                                     | Less than one month ago         | Between one month to less than 3 months ago | Between three months to less than 12 months ago | More than a year ago |   |   |
| Andhra Pradesh   | 800          | 4.9  | -                                   | -                               | -   | -   | -                    | -   | -                                       |
| Assam            | 800          | 1.3  | 13.5                                | 10.2                            | 36.1  | 40.7  | 13.0                 | 27.8  | 68.5                                    |
| Chandigarh       | 400          | 4.5  | 11.3                                | 0.0                             | 4.4   | 17.8  | 73.3                 | 64.4  | 26.7                                    |
| Chhattisgarh     | 396          | 2.5  | 0.5                                 | 0.0                             | 0.0   | 0.0   | 100.0                | 50.0  | 0.0                                     |
| Delhi            | 804          | 35.1   | 4.4                                 | 0.0                             | 5.7   | 42.9  | 51.4                 | 42.9  | 28.6                                    |
| Gujarat          | 800          | 2.3  | 0.9                                 | 14.3                            | 0.0   | 14.3  | 71.4                 | 14.3  | 14.3                                    |
| Haryana          | 800          | 19.9   | 4.1                                 | 0.0                             | 9.1   | 33.3  | 54.5                 | 75.8  | 57.6                                    |
| Himachal Pradesh | 400          | 0.5  | 2.0                                 | 0.0                             | 0.0   | 12.5  | 75.0                 | 37.5  | 25.0                                    |
| Jharkhand        | 737          | 3.4  | 0.3                                 | 0.0                             | 0.0   | 0.0   | 50.0                 | 0.0   | 0.0                                     |
| Karnataka        | 1200         | 4.8  | 1.4                                 | 0.0                             | 0.0   | 11.8  | 76.5                 | 29.4  | 11.8                                    |
| Kerala           | 400          | 0.8  | 3.3                                 | 0.0                             | 0.0   | 7.7   | 92.3                 | 76.9  | 15.4                                    |
| Madhya Pradesh   | 1200         | 1.3  | 1.1                                 | 7.7                             | 7.7   | 7.7   | 76.9                 | 46.2  | 30.8                                    |
| Maharashtra      | 1597         | 1.9  | 1.5                                 | 0.0                             | 4.2   | 37.5  | 54.2                 | 41.7  | 8.3                                     |
| Manipur          | 397          | 3.3  | 17.1                                | 0.0                             | 2.9   | 26.5  | 70.6                 | 83.8  | 25.0                                    |
| Mizoram          | 399          | 38.8   | 39.3                                | 17.8                            | 13.4  | 19.7  | 31.8                 | 58.0  | 45.9                                    |
| Nagaland         | 300          | 9.0  | 7.3                                 | 13.6                            | 13.6  | 4.5   | 68.2                 | 77.3  | 31.8                                    |
| Odisha           | 717          | 0.0  | 0.1                                 | 0.0                             | 0.0   | 0.0   | 100.0                | 100.0                                       | 0.0                                     |
| Punjab           | 1200         | 60.0   | 16.8                                | 7.5                             | 7.0   | 25.9  | 58.2                 | 68.2  | 44.8                                    |
| Rajasthan        | 1200         | 8.0  | 1.1                                 | 7.7                             | 7.7   | 7.7   | 76.9                 | 61.5  | 7.7                                     |
| Tamil Nadu       | 1200         | 1.3  | 0.5                                 | 0.0                             | 33.3  | 16.7  | 33.3                 | 83.3  | 16.7                                    |
| Telangana        | 400          | 1.0  | 2.0                                 | 0.0                             | 0.0   | 12.5  | 0.0                  | 25.0  | 0.0                                     |
| Tripura          | 400          | 1.5  | 2.0                                 | 12.5                            | 25.0  | 37.5  | 25.0                 | 75.0  | 0.0                                     |
| Uttar Pradesh    | 800          | 0.1  | 0.1                                 | 0.0                             | 0.0   | 0.0   | 100.0                | 100.0                                       | 0.0                                     |
| Uttarakhand      | 379          | 0.0  | 0.5                                 | 0.0                             | 50.0  | 0.0   | 50.0                 | 0.0   | 0.0                                     |
| West Bengal      | 1083         | 5.6  | 1.4                                 | 0.0                             | 6.7   | 0.0   | 93.3                 | 53.3  | 26.7                                    |
| <b>India</b>     | <b>18809</b> | <b>9.4</b>                                     | <b>4.3</b>                          | <b>7.5</b>                      | <b>11.7</b>                                 | <b>24.8</b>                                     | <b>50.2</b>          | <b>57.8</b>                                 | <b>39.6</b>                             |

\* Among those who reported to be had history of injecting drug for pleasure; # Except for Assam, Manipur, Mizoram and Punjab, less than 50 sampled inmates reported to inject drug for pleasure in all other States/UT. In these States/UT, finding on injecting drug practices among inmates shall be interpreted with caution, @ responses may not add to 100% due to missing values.

**Figure 6: Injecting practices among undertrial and convicted inmates (%)**



Almost two thirds of the recruited inmates were in prison for one year or more. Among them, around 3% reported to have had a lifetime experience of injecting drug for pleasure. However, only 6% of those with lifetime experience reported last injecting episode within three months of preceding the survey. More than half (59%) reported use of sterile needle/ syringe during their last injecting episode while 34% reported sharing of used needle/syringe.

## 4.6 Sexual behaviour and condom use practices

HSS Plus 2019 among inmates at central jails enquired about the sexual behaviour and condom use practices. Similar to the injecting drug use practices, respondents were first asked about sexual behaviour of inmates in general followed by their own sexual behaviour and condom use. State/UT-wise findings on sexual behaviour and condom use practices are presented in Table 8.

Overall, around 16% of the recruited inmates (20% of convicts and 12% of undertrial) reported that inmates in their prison do have the sexual intercourse with other prisoners (Figure 7). In Gujarat, Punjab, Uttar Pradesh and West Bengal, 29-34% of inmates reported such a practice. In Andhra Pradesh, Karnataka, Madhya Pradesh and Odisha, 20-22% of the respondents reported doing so.

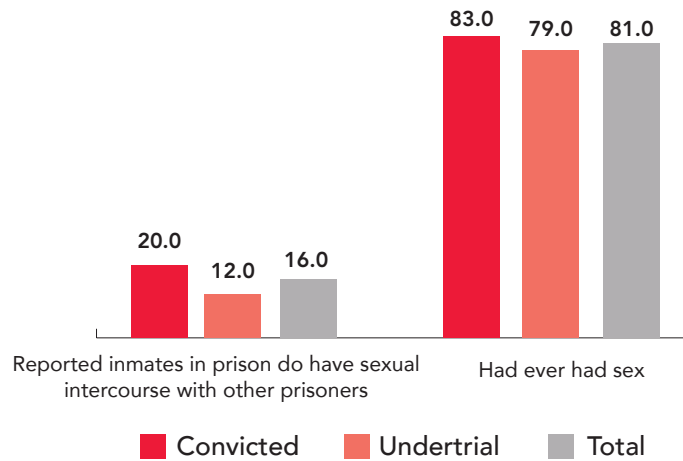
When recruited respondents were asked if they are sexually active, more than four-fifth (83% of convicts and 79% of undertrials) reported to be sexually active. In all States/UTs, three-fourth or more of the inmates were sexually active except for the States of Tamil Nadu (28%), Jharkhand (62%) and Tripura (70%).

**Table 8: Sexual behaviour among inmates by State and UT**

| State/UT         | N            | Inmates have sex with other inmates in the prison | Have ever had sex | When had sexual intercourse last time (%)*# |   |   |                      | Last Sexual Partner (%)*# |                     |                                     |              |                             |
|------------------|--------------|---|-------------------|---|---|---|----------------------|---------------------------|---------------------|-------------------------------------|--------------|-----------------------------|
|                  |              |   |                   | Less than a month ago                       | Between 1 month to less than 3 months ago | Between 3 months to less than 12 months ago | More than a year ago | Regular female partner    | Paid female partner | Non-paid non-regular female partner | Male partner | Hijra/ Trans-gender partner |
| Andhra Pradesh   | 800          | 22.0  | 87.1              | 6.6   | 10.2                                      | 22.1  | 60.5                 | 88.5                      | 5.3                 | 5.9                                 | 0.0          | 0.0                         |
| Assam            | 800          | 2.4   | 77.4              | 9.0   | 17.9                                      | 27.9  | 45.1                 | 87.2                      | 4.4                 | 8.2                                 | 0.2          | 0.0                         |
| Chandigarh       | 400          | 14.0  | 88.0              | 4.5   | 7.1                                       | 22.4  | 65.9                 | 96.6                      | 3.1                 | 0.0                                 | 0.3          | 0.0                         |
| Chhattisgarh     | 396          | 17.7  | 84.1              | 1.2   | 3.6                                       | 33.9  | 60.1                 | 80.2                      | 9.9                 | 9.0                                 | 0.0          | 0.0                         |
| Delhi            | 804          | 17.9  | 84.7              | 1.5   | 5.6                                       | 21.7  | 71.2                 | 86.5                      | 12.9                | 0.3                                 | 0.3          | 0.0                         |
| Gujarat          | 800          | 34.5  | 95.1              | 10.6  | 6.0                                       | 19.4  | 63.7                 | 95.4                      | 3.4                 | 0.8                                 | 0.4          | 0.0                         |
| Haryana          | 800          | 17.6  | 88.4              | 2.4   | 5.5                                       | 32.1  | 59.3                 | 82.5                      | 7.9                 | 7.8                                 | 1.1          | 0.0                         |
| Himachal Pradesh | 400          | 3.8   | 90.8              | 0.3   | 4.4                                       | 17.4  | 78.0                 | 87.3                      | 6.1                 | 6.1                                 | 0.6          | 0.0                         |
| Jharkhand        | 737          | 8.8   | 62.4              | 6.7   | 16.1                                      | 7.6   | 63.5                 | 94.3                      | 0.0                 | 5.0                                 | 0.0          | 0.0                         |
| Karnataka        | 1200         | 20.3  | 83.0              | 0.4   | 2.7                                       | 15.5  | 81.2                 | 72.3                      | 14.0                | 7.4                                 | 2.7          | 0.0                         |
| Kerala           | 400          | 6.5   | 87.5              | 0.6   | 0.3                                       | 11.4  | 84.6                 | 83.7                      | 15.7                | 0.0                                 | 0.0          | 0.0                         |
| Madhya Pradesh   | 1200         | 21.5  | 86.1              | 1.0   | 2.5                                       | 16.2  | 80.3                 | 92.0                      | 3.4                 | 4.3                                 | 0.4          | 0.0                         |
| Maharashtra      | 1597         | 10.8  | 86.2              | 2.8   | 5.4                                       | 17.9  | 73.6                 | 90.3                      | 7.1                 | 1.5                                 | 0.5          | 0.1                         |
| Manipur          | 397          | 0.3   | 75.8              | 0.0   | 3.7                                       | 34.2  | 60.8                 | 93.7                      | 2.7                 | 1.0                                 | 0.0          | 0.0                         |
| Mizoram          | 399          | 6.0   | 90.7              | 8.8   | 13.3                                      | 21.3  | 56.6                 | 95.0                      | 1.7                 | 2.5                                 | 0.8          | 0.0                         |
| Nagaland         | 300          | 0.7   | 93.7              | 45.2  | 12.5                                      | 16.4  | 25.6                 | 92.9                      | 1.4                 | 5.7                                 | 0.0          | 0.0                         |
| Odisha           | 717          | 19.7  | 77.5              | 0.4   | 2.3                                       | 43.9  | 53.2                 | 82.4                      | 5.8                 | 11.9                                | 0.0          | 0.0                         |
| Punjab           | 1200         | 29.3  | 88.9              | 0.7   | 2.4                                       | 24.2  | 72.2                 | 98.4                      | 0.9                 | 0.2                                 | 0.0          | 0.0                         |
| Rajasthan        | 1200         | 16.8  | 88.7              | 0.5   | 2.4                                       | 18.4  | 78.3                 | 84.8                      | 3.8                 | 10.7                                | 0.2          | 0.0                         |
| Tamil Nadu       | 1200         | 2.0   | 28.3              | 0.3   | 3.8                                       | 40.0  | 55.9                 | 81.8                      | 11.5                | 6.5                                 | 0.3          | 0.0                         |
| Telangana        | 400          | 8.8   | 94.5              | 0.0   | 1.3                                       | 14.0  | 84.7                 | 89.7                      | 4.5                 | 5.6                                 | 0.0          | 0.0                         |
| Tripura          | 400          | 5.8   | 69.5              | 1.4   | 19.1                                      | 10.4  | 69.1                 | 88.8                      | 5.4                 | 5.4                                 | 0.4          | 0.0                         |
| Uttar Pradesh    | 800          | 31.1  | 83.9              | 0.3   | 0.0                                       | 0.0   | 99.3                 | 99.0                      | 0.3                 | 0.6                                 | 0.0          | 0.0                         |
| Uttarakhand      | 379          | 0.5   | 79.2              | 0.3   | 1.3                                       | 10.0  | 84.0                 | 99.3                      | 0.3                 | 0.0                                 | 0.0          | 0.0                         |
| West Bengal      | 1083         | 31.1  | 86.2              | 0.6   | 4.1                                       | 14.6  | 80.7                 | 86.1                      | 9.4                 | 3.2                                 | 0.7          | 0.0                         |
| <b>India</b>     | <b>18809</b> | <b>16.2</b>                                       | <b>81.1</b>       | <b>3.3</b>                                  | <b>5.5</b>                                | <b>20.0</b>                                 | <b>70.6</b>          | <b>88.8</b>               | <b>5.8</b>          | <b>4.4</b>                          | <b>0.5</b>   | <b>0.0</b>                  |

\* Among inmates who reported to ever had sex, # Total may not add upto 100% due to missing values

**Figure 7: Knowledge about sexual activities in prison in general and their own sexual experiences among inmates (%)**



Among the sexually active inmates, the last partner with whom the recruited inmates reported having sex was almost universally reported as a female partner (including 6% paid female partner and 4% casual female partner) nationally. In Delhi, Karnataka, Kerala, Mumbai and Tamil Nadu, 12-16% of the respondents reported their last sexual intercourse with a paid female partner. In Haryana and Karnataka, 1-3% of recruited inmates reported their last sexual partner being a male.

Reported condom use, when the last sexual act was with a regular female partner, was 16% (Table 9). It was 31% with a casual female partner and 50% with a paid female partner (47% among convicts

and 51% among undertrial). While a very negligible proportion (0.5%) of inmates reported their last sexual act with a male partner, condom use was reported in only 8% of such acts.

Delhi, Haryana, Karnataka, Kerala, Maharashtra and West Bengal were the States where at least 50 of the sexually active recruited inmates reported to have their last sexual act with a paid female partner. In these States, highest condom act during last sex act with paid female partner was reported in Karnataka (66%), followed by Haryana (64%) and Maharashtra (55%). Around two fifth in Delhi and Kerala while only 26% of the inmates in West Bengal reported to use condom when they had sex with a paid partner last.



In Delhi, Haryana, Karnataka, Kerala, Maharashtra and West Bengal, **highest condom act during last sex act with paid female partner was reported in Karnataka (66%), followed by Haryana (64%) and Maharashtra (55%).**

**Table 9: Condom use practices with last female partners among inmates who reported to ever had sex**

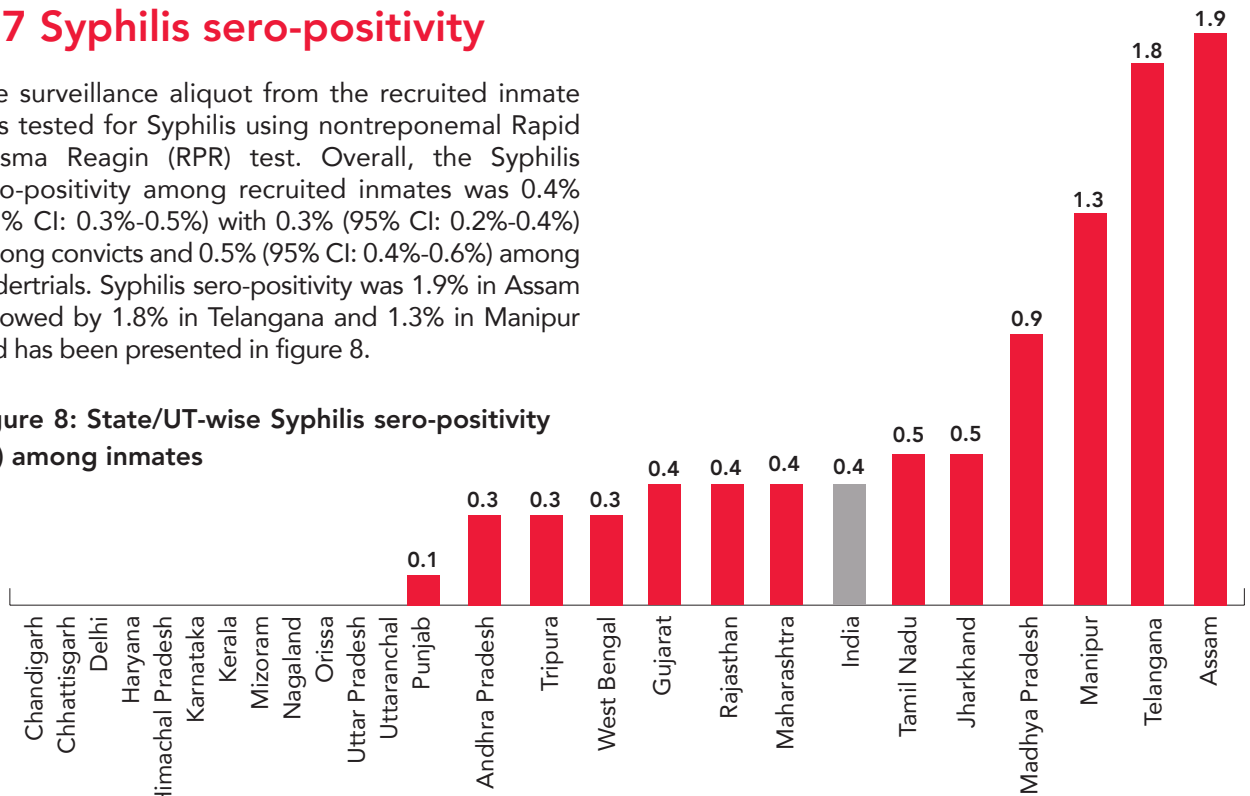
| State/UT         | Partner type (%)           |                         |                           | Condom use (%) during last sex act with the partner |  |  |
|------------------|----------------------------|-------------------------|---------------------------|---|--|--|
|                  | Had regular female partner | Had paid female partner | Had casual female partner | Condom use in last sex act with regular partner     | Condom use in last sex act with paid partner | Condom use in last sex act with casual partner |
| Andhra Pradesh   | 88.5                       | 5.3                     | 5.9                       | 4.7   | 27.0   | 22.0   |
| Assam            | 87.2                       | 4.4                     | 8.2                       | 8.3   | 22.2   | 23.5   |
| Chandigarh       | 96.6                       | 3.1                     | 0.0                       | 33.5  | 72.7   | 0.0  |
| Chhattisgarh     | 80.2                       | 9.9                     | 9.0                       | 17.2  | 39.4   | 26.7   |
| Delhi            | 86.5                       | 12.9                    | 0.3                       | 27.7  | 40.9   | 0.0  |
| Gujarat          | 95.4                       | 3.4                     | 0.8                       | 19.8  | 61.5   | 0.0  |
| Haryana          | 82.5                       | 7.9                     | 7.8                       | 19.6  | 64.3   | 54.5   |
| Himachal Pradesh | 87.3                       | 6.1                     | 6.1                       | 19.9  | 54.5   | 27.3   |
| Jharkhand        | 94.3                       | 0.0                     | 5.0                       | 5.3   | 0.0  | 26.1   |
| Karnataka        | 72.3                       | 14.0                    | 7.4                       | 13.1  | 65.5   | 28.4   |
| Kerala           | 83.7                       | 15.7                    | 0.0                       | 2.4   | 41.8   | 0.0  |
| Madhya Pradesh   | 92.0                       | 3.4                     | 4.3                       | 21.3  | 40.0   | 22.7   |
| Maharashtra      | 90.3                       | 7.1                     | 1.5                       | 32.6  | 55.1   | 55.0   |
| Manipur          | 93.7                       | 2.7                     | 1.0                       | 9.9   | 50.0   | 33.3   |
| Mizoram          | 95.0                       | 1.7                     | 2.5                       | 14.8  | 33.3   | 11.1   |
| Nagaland         | 92.9                       | 1.4                     | 5.7                       | 19.2  | 50.0   | 31.3   |
| Odisha           | 82.4                       | 5.8                     | 11.9                      | 13.8  | 34.4   | 19.7   |
| Punjab           | 98.4                       | 0.9                     | 0.2                       | 15.7  | 60.0   | 50.0   |
| Rajasthan        | 84.8                       | 3.8                     | 10.7                      | 17.1  | 50.0   | 41.2   |
| Tamil Nadu       | 81.8                       | 11.5                    | 6.5                       | 2.2   | 84.6   | 13.6   |
| Telangana        | 89.7                       | 4.5                     | 5.6                       | 21.5  | 88.2   | 76.2   |
| Tripura          | 88.8                       | 5.4                     | 5.4                       | 7.3   | 13.3   | 13.3   |
| Uttar Pradesh    | 99.0                       | 0.3                     | 0.6                       | 9.8   | 0.0  | 0.0  |
| Uttarakhand      | 99.3                       | 0.3                     | 0.0                       | 10.4  | 0.0  | 0.0  |
| West Bengal      | 86.1                       | 9.4                     | 3.2                       | 6.2   | 26.1   | 13.3   |
| <b>India</b>     | <b>88.8</b>                | <b>5.8</b>              | <b>4.4</b>                | <b>16.3</b>   | <b>49.2</b>                                  | <b>30.7</b>                                    |



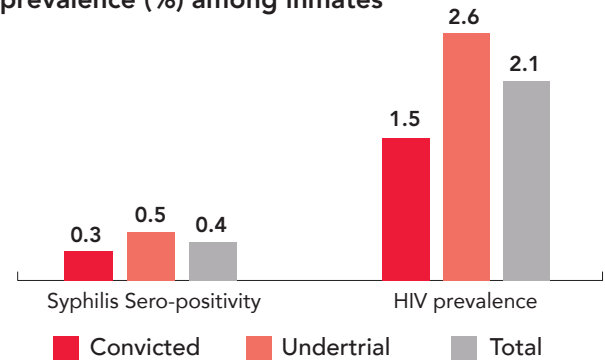
## 4.7 Syphilis sero-positivity

The surveillance aliquot from the recruited inmate was tested for Syphilis using nontreponemal Rapid Plasma Reagin (RPR) test. Overall, the Syphilis sero-positivity among recruited inmates was 0.4% (95% CI: 0.3%-0.5%) with 0.3% (95% CI: 0.2%-0.4%) among convicts and 0.5% (95% CI: 0.4%-0.6%) among undertrials. Syphilis sero-positivity was 1.9% in Assam followed by 1.8% in Telangana and 1.3% in Manipur and has been presented in figure 8.

**Figure 8: State/UT-wise Syphilis sero-positivity (%) among inmates**



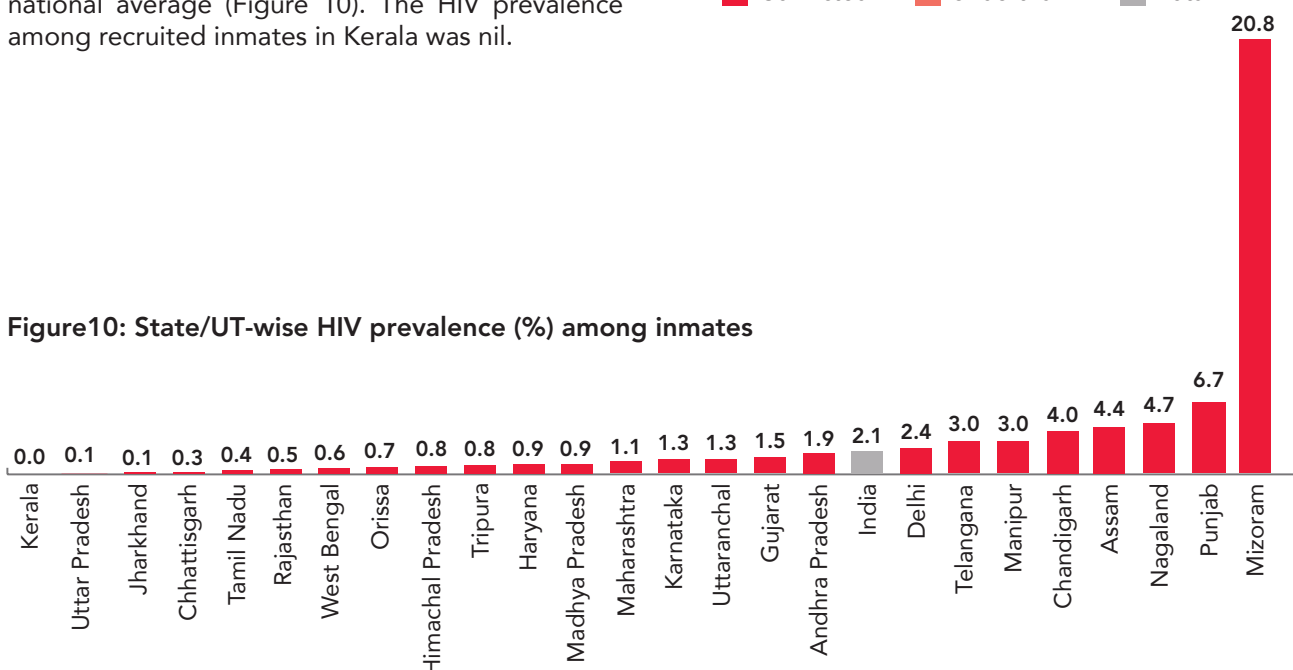
**Figure 9: Syphilis sero-positivity (%) and HIV prevalence (%) among inmates**



## 4.8 HIV prevalence

Overall, HIV prevalence was 2.1% (95% CI: 1.9%-2.3%) among recruited inmates; 1.5% (95% CI: 1.3%-1.8%) among convicts and 2.6% (95% CI: 2.3%-2.9%) among undertrials (Figure 9). However, the prevalence in the group was as high as around 21% in Mizoram. In Punjab, the HIV prevalence was at 6.7% in the group. In Assam, Chandigarh and Nagaland, the prevalence was almost two times of national average (Figure 10). The HIV prevalence among recruited inmates in Kerala was nil.

**Figure10: State/UT-wise HIV prevalence (%) among inmates**



# 05 Discussion

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With HSS Plus 2019 conducted among inmates at the central prisons under the NACP, India is one among the few countries across the globe with large-scale systematic HIV/AIDS related bio-behavioural surveillance systems among this key population. The latest figures from “National Crime Records Bureau on Prison Statistics-2017” reports 4.51 lakh (0.45 million) prisoners as of end of year 2017. In the same year, around 16.56 lakh (1.65 million) people were admitted in various jails of the country. Findings from the HSS Plus 2019 will be helpful to augment evidence driven national AIDS response aiming to reach more than 16.50 lakh inmates.

In this first round of HSS Plus among inmates at selected central prisons, the prevalence of HIV infection among prisoners was observed to be about 2% in 2019. This is almost 9 times higher than that in the general population and comparable to HIV prevalence observed among FSWs in India. However, although prevalence is much higher, the knowledge about HIV/AIDS is much below the desired levels. Less than 3 of every 10 inmates had comprehensive correct knowledge of HIV/AIDS. In high prevalence States of Manipur, the knowledge about HIV prevention through consistent use of condom is reported by only 4 of every 10 respondent.

The findings show sub-optimal coverage of HIV testing in a population where HIV prevalence is much higher than the general population. Only three prison inmates out of 10 reported to have tested for HIV in the last 12 months. As a result of sub-optimal testing coverage, less than half of HIV positive inmates were on ART. This is a critical gap and a priority area of future interventions designing as national programme aims to achieve Fast-Track treatment target of 90-90-90 by 2020.

The findings establish over-representation of IDUs in Indian prisons than people from the general population. In Mizoram, almost 4 of every 10 inmates reported ever injecting drug for pleasure. Less than 60% of IDU inmates reported use of sterile N/S for their last injecting episode in comparison to 85% by IDU in general (National Integrated Biological Behavioural Surveillance Survey, India, 2015). Clearly, the inmates with IDU history are less likely to follow safe injecting drug practices.

The findings also indicate presence of sexual activities in prison with 16 of every 100 inmates reporting the same. Also, the clients of sex workers are represented in central prisons in a significant proportion with only half reporting use of condoms during their last sexual act with paid partners.

Overall 2019 round of HSS Plus establishes that people at high risk of HIV infection are over-represented in Indian prisons. The prison population are not completely isolated from the general community as majority return to their villages, towns or cities from where they come. The comprehensive package of services, across prevention-detection-treatment continuum in prisons and other closed settings, being launched and expanded under the NACP is a critical step in right direction as country moves towards achieving ‘End of AIDS’ as a public health threat by 2030.



# 06 Annexures

## 6.1. Annexure 1: Composition of technical Resource Group on HIV Surveillance & Estimation

**Chair:** Shri Sanjeeva Kumar, Special Secretary and Director General, NAGO

**Co-chair:** Dr Sanjay Mehendale, Additional Director General, ICMR

**Member Secretary:** Dr Shobini Rajan, Assistant Director General, NACO

### Members:

1. Shri Alok Saxena, Joint Secretary, NACO
2. Dr Henk Bekedam, WHO County Representative to India
3. Dr Bilali Camara, UNAIDS Country Director, India
4. Dr N.S. Dharmshaktu, Principal Advisor to Ministry on Public Health, MoHFW, GoI
5. Dr Peter Ghys, Director, Strategic Information and Evaluation, UNAIDS, Geneva
6. Dr DCS Reddy, Independent Expert
7. Prof. Arvind Pandey, Advisor, National Institute of Medical Statistics.
8. Dr Rajesh Kumar, Head, School of Public Health, PGIMER Chandigarh
9. Dr Samiran Panda, Director, National AIDS Research Institute, Pune
10. Dr Manoj Vasant Murhekar, Director, National Institute Epidemiology, Chennai
11. Dr Shante Dutta, Director, National Institute of Cholera and Enteric Disease, Kolkata
12. Dr Shashi Kant, Professor and Head, Centre for Community Medicine, AIIMS, New Delhi
13. Dr S. Baby Vasumathi, Director, Institute of Obstetrics & Gynaecology, Madras Medical College, Chennai
14. Dr Sanjay Dixit, Head, Dept of Community Medicine, MGM Medical College, Indore
15. Dr D K Shukla Scientist G, National Institute of Medical Statistics, New Delhi
16. Dr Laxmisha Chandrashekar, Head of Department, Department of Dermatology and STD, JIPMER, Puducherry
17. Mr Taoufik Bakkali, Senior M&E advisor, UNAIDS Regional Support Team for Asia and the Pacific, Thailand
18. Dr Laishram Ladu Singh, Officiating Director, IIPS, Mumbai
19. Dr Jagdish Chandra, Former Director, Kalawati Saran Children's Hospital, Delhi
20. Dr Timothy Holtz, Director, CDC-DGHT, India
21. Dr John Stover, Vice President, Avenir Health and member, UNAIDS
22. Mr Ashok R Kavi, Chairman, the Humsafar Trust
23. Mx Abhina Aher, Associate Director: Sexuality, Gender & Rights, India INV/HIV Alliance
24. Dr Naresh Goel, DDG, IEC and Lab Services, NACO
25. Dr R S Gupta DDG, CST, NACO
26. Dr K S Sachdeva, DDG, Basic Service division, NACO

## 6.2. Annexure 2: Participant Information Sheet and Informed Consent Form

### Participant Information Sheet

\*\*\*

This form explains the purpose and details of HIV surveillance (survey) activity for which information and blood sample is proposed to be collected from you. On reading/ understanding the following information, if you agree to take part in this survey, you will be interviewed using a data sheet as well as blood sample will be collected. You are requested to sign or make a thumb impression at the end of form. If you have any questions/ queries, you can ask us before giving the consent.

HIV/AIDS disease is one of the major public health problems in India. National AIDS Control Organization (NACO), Ministry of Health and Family Welfare, Govt of India, the nodal national agency for control of HIV/AIDS disease in India, conducts biennial HIV surveys in different population groups to know how prevalent the HIV/AIDS disease is in different groups and overall. This biennial survey is called HIV Sentinel Surveillance. Inmates in central jail are one of the groups among whom this survey is being implemented. The results of this survey will help NACO to understand how big the HIV/AIDS disease among inmates is in India and develop and augment appropriate services for HIV/AIDS disease among them. 400 inmates have been randomly selected for the survey in this prison and you are one among them. All the data collected under this HIV Survey will be completely confidential and will not be shared with anyone outside the surveillance survey team. The complete survey process will take around 15-20 minutes.

Some of the questions appear sensitive but it is important that you answer them all. Your answers will help improving policies and programs related to services". Please rest assured that personal identifier like name, mobile etc. is not mentioned on HIV survey data forms and hence the information provided by you will be completely confidential and anonymous. You do not have to answer any question that you do not wish to answer. However, your honest answer to these questions will help us better understand the risk factors associated with HIV or Syphilis.

After completion of data forms, the survey team will also collect about 5 ml (approximately one teaspoon) of blood sample. The equipment used to take the blood is clean and completely safe. It has never been used before and will be discarded after each collection. The blood sample will be tested for HIV and Syphilis. As a part of this survey, the results of the test results will be provided to you. All the information that you provide, and your test results will be kept confidential and anonymous. The programme will also offer necessary free of cost follow-up services for treatment of HIV/Syphilis if you need them.

I hope the aforesaid information answers all your questions and you agree to participate in this HIV survey. Though there is no other direct benefit to you, except for those mentioned above, your participation and results of this survey will help the national health system to develop appropriate programs to prevent these diseases among prison inmates in India as a whole. You are free to refuse to participate in the survey. Your decision to agree or refuse to participate in the survey will not affect the provision of any services to you in any way at the prison.

Do you have any Questions?

.....

### Informed Consent Form

I, ....., aged.....yrs\*, have fully understood the contents and agree to participate in this survey and give my blood for HIV/Syphilis test by my own volition. I know that the data collected under this survey will be used by the National AIDS Control Programme to improve the HIV/AIDS services with full confidentiality.

Signature/thumb impression: ..... Date: .....

(This is the left thumb impression of ..... Counsellor's Signature: .....)

Name of witness: ..... Signature: .....

Date:.....Counsellor's Name:.....Signature:.....Date:.....

### 6.3. Annexure 3: Prison Data Forms

## HSS 2019: Data Form for Prisoners

### एच.एस.एस. 2019; कैदियों के लिए डेटा प्रपत्र

[Please fill the site details in the box below OR Paste the sticker with site details/Stamp the site details in the empty box]/ कृपया सेंटिनल साइट की जानकारी निचे दिए गए बाक्स में भरे/खाली दिए गए बाँक्स में मोहर लगाए/स्टीकर चिपकाएँ

|   |                      |                      |                      |
|---|----------------------|----------------------|----------------------|
| State/राज्य:.....                             |                      |                      |                      |
| District/जिला:.....                           |                      |                      |                      |
| Site/Sub-site Name/साइट/सब साइट का नाम: ..... |                      |                      |                      |
| (Site Code)                                   | (Sub-Site No)        | (Sample No)          | (Date-DD/MM/YY)      |
| <input type="text"/>                          | <input type="text"/> | <input type="text"/> | <input type="text"/> |

#### Section 1

#### Background Characteristic/ परिप्रेक्ष्य विशेषताएं

**Introductory Statement:** Thank you very much for agreeing to participate in this surveillance survey. As I mentioned, this survey is completely anonymous, confidential and will help government of India to design and enhance HIV/AIDS services in prison and other correctional institutions. So, we will now start the interview/इस सर्वेक्षण में भाग लेने की सहमति देने के लिए आपका धन्यवाद। जैसा की आपको बताया गया है, ये सर्वेक्षण पूर्ण रूप से नामरहित व गोपनीय है और इससे भारत सरकार को जेल व सुधार केन्द्रों में एचआईवी/एड्स सम्बंधित सुविधाओं की योजना बनाने व सुधारने में मदद मिलेगी। अब हम साक्षात्कार शुरू करेंगे।

1. How old are you/आपकी उम्र कितनी है? (Age in completed years/आयु सम्पूर्ण वर्षों में)

2. What is your current marital status/आपकी वर्तमान स्थिति क्या है?

1. Never Married/कभी शादी नहीं हुई

2. Currently Married/ विवाहित

3. Divorced/Separated/Widower/तलाकशुदा/अलग रह रहे है/विधवा

3. What is the highest grade/class you have completed/आजतक आपने कितनी उच्चतम शिक्षा प्राप्त की है?

1. Illiterate/निरक्षर

2. Literate and till 5<sup>th</sup> Standard/साक्षर और पांचवी तक

3. 6<sup>th</sup> to 10<sup>th</sup> Standard/छठी से दसवी तक

4. 11<sup>th</sup> to graduation/ग्यारहवी से स्नातक

5. Post-Graduation & above/स्नातकोत्तर

4. What is your current prisoner status/आपकी वर्तमान कैदी अवस्था क्या है?

1. Convicted/अपराधी

2. Under trial/विचाराधीन

5. Since how long you are in this prison/आप कितने समय से इस जेल में है?

1. Less than one month/एक महीने से कम

2. 1 month to less than 3 months/एक महीने से लेकर 3 महीने से कम तक

3. 3 month to less than 12 months/3 महीने से लेकर 12 महीने से कम तक
4. 1 year to less than 3 years/1 साल से लेकर 3 साल से कम तक
5. More than 3 years/3 साल से ज्यादा

6. How many times you had been in prison before the present imprisonment/इससे पहले आप कितनी बार जेल में कैदी रह चुके हैं?

1. Never/कभी नहीं
2. One time/एक बार
3. 2 times or more/दो बार से ज्यादा

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## Section 2

### HIV/AIDS related knowledge/ एचआईवी/एड्स सम्बंधित जानकारी

**Statement:** As we mentioned before, the focus of the current survey is to further augment the healthcare services among prison population. So, now I will like to ask you some questions about awareness about the health programme for which this survey is being done/ जैसा की हमने पहले बताया है, इस सर्वे का मुख्य केंद्र कैदियों में स्वास्थ्य सुविधाओं को बढ़ावा देना है। मैं अब आपसे स्वास्थ्य प्रोग्राम की जानकारी से सम्बंधित सवाल पूछूंगा/पूछूंगी जिसके लिए ये सर्वेक्षण किया जा रहा है।

7. Have you heard of HIV or AIDS/ क्या आपने एचआईवी या एड्स के बारे में सुना है?

1. Yes/ हाँ
2. No/ नहीं

**Note:** If the response for question no. 7 is 'No' (i.e. code '2'), then skip the rest of section 2 and whole section 3 and go to the section 4 please/ अगर प्र.7 का उत्तर 'नहीं' (2) है तो भाग 2 के बाकी प्र. और भाग 3 के सभी प्र. छोड़ दें और भाग 4 पर जाएँ।

8. Is it possible to reduce the risk of HIV infection by having sexual relations with just one uninfected faithful sexual partner/क्या एक ही विश्वसनीय यौन साथी से यौन सम्बंध रखने से एचआईवी संक्रमण का खतरा कम किया जा सकता है?

1. Yes/ हाँ
2. No/ नहीं
3. Don't know/ पता नहीं

9. Is it possible to reduce the risk of HIV infection by using a condom every time one has sex/क्या हर बार यौन सम्बंध के समय कंडोम के प्रयोग से एचआईवी संक्रमण का खतरा कम किया जा सकता है?

1. Yes/ हाँ
2. No/ नहीं
3. Don't know/ पता नहीं

10. Can a person get HIV from mosquito bites/ क्या किसी व्यक्ति को मच्छर के काटने से एचआईवी संक्रमण हो सकता है?

1. Yes/ हाँ
2. No/ नहीं
3. Don't know/ पता नहीं

11. Is it possible to become HIV infected by sharing a meal with a person infected with HIV/क्या HIV से संक्रमित व्यक्ति के साथ खाना खाने से एचआईवी संक्रमण हो सकता है?

1. Yes/ हाँ
2. No/ नहीं
3. Don't know/ पता नहीं

12. Is it possible for a healthy-looking person to have HIV/AIDS/क्या स्वस्थ दिखने वाले व्यक्ति को एचआईवी/एड्स हो सकता है?

1. Yes/ हाँ
2. No/ नहीं
3. Don't know/ पता नहीं





## Section 4

### Injecting Drug Use Practices/नशीली दवाओं के इंजेक्शन का प्रयोग

**Statement:** Now I would like to ask some questions on injecting drug use. I will like to reassure you that the sentinel survey is fully anonymous and confidential. And honest response of these questions will be of extreme help to the national health programme. Please feel to stop me and ask your doubts at any time if you desire so/ अब मैं आपसे इंजेक्शन द्वारा नशीली दवाओं के प्रयोग के बारे में कुछ सवाल पूछूंगा। मैं आपको फिर से आश्वासन दिलाता हूँ कि ये सर्वेक्षण पूर्णतः नामरहित व गोपनीय है और सही रूप से दिया गया जवाब राष्ट्रीय स्वास्थ्य प्रोग्राम में मदद करेगा। आप अपनी कोई भी आशंका बेझिझक कभी भी पूछ सकते हैं।

18. In your opinion, do inmates in this prison INJECT DRUGS for pleasure/ आपकी राय में, क्या इस जेल में कैदी आनंद के लिए इंजेक्शन द्वारा नशीली दवाओं का प्रयोग करते हैं?

1. Yes/ हाँ                      2. No/नहीं                      3. Don't know/No Response/पता नहीं/कोई जवाब नहीं

19. Have you ever injected yourself with any drug for pleasure in your lifetime/ क्या आपने जीवन में आनंद के लिए इंजेक्शन द्वारा नशीली दवाओं का प्रयोग किया है?

1. Yes/ हाँ                      2. No/नहीं

**Note:** If the response for question no. 19 is 'No (i.e. code '2")', then skip the rest of section 4 and go to the section 5 please/ अगर प्र.14 का उत्तर 'नहीं' (2) है, भाग 3 के बाकी प्र. छोड़ दें और भाग 4 पर जाएं

20. When was the last time when you injected yourself with any drug for pleasure/आपने पिछली बार आनंद के लिए नशीली दवा का इंजेक्शन कब लिया था?

1. Less than a month/एक महीने से कम  
2. 1 month to less than 3 months/1 महीने-3 महीने से कम  
3. 3 months to less than 12 months/3 महीने-12 महीने से कम  
4. More than 1 year/1 साल से ज्यादा

21. When you injected last for pleasure, did you use a sterile needle/syringe for injecting yourself/ जब पिछले बार आपने आनंद के लिए नशीली दवा का इंजेक्शन लिया था, तो क्या आपने विसंक्रमित सुई का प्रयोग किया था?

1. Yes/ हाँ                      2. No/नहीं                      3. Don't remember/ याद नहीं

22. When you injected last, did you share needle/syringe already used by you with a fellow injecting drug user/जब पिछले बार आपने नशीली दवा का इंजेक्शन लिया था, तो क्या अपने द्वारा प्रयोग किया हुआ इंजेक्शन किसी और के साथ साझा किया था?

1. Yes/ हाँ                      2. No/नहीं                      3. Don't remember/ याद नहीं

## Section 5

### Sexual Behaviour and Condom Use Practices

**Statement:** We have reached the last part of our interview. Thank you very much for all the support provided till now. In this final section, we would like to ask you some questions regarding sexual behaviour. I understand how personal those questions are, but at the same time I would like you to note once again that confidentiality is fully maintained in this survey, and the same questions are being asked to all the participants/ हम इस साक्षातकार के आखिरी चरण पर पहुँच चुके हैं। अभी तक आपके सहयोग के लिए धन्यवाद। अब इस आखिरी भाग में हम आपके यौन सम्बंधित व्यवहार के बारे में कुछ प्रश्न पछेंगे। हम ये समझते हैं की ये प्रश्न व्यक्तिगत हैं, लेकिन मैं आपको फिर से याद करा दूँ की ये सर्वे पूर्णतः गोपनीय है और सभी प्रतिभागियों से समान प्रश्न पछे जा रहे हैं।

**23. In your opinion, do inmates in this prison are having sexual intercourse with other prisoners?  
क्या आपके राय में इस जेल के कैदी अन्य कैदियों के साथ संभोग करते हैं?**

1. Yes/हाँ                      2. No/नहीं                      3. Don't know/No Response/ पता नहीं/कोई जवाब नहीं

**24. Have you ever had sexual intercourse in your lifetime/क्या आपने अपने जीवन में कभी संभोग किया है?**

1. Yes/हाँ                      2. No/नहीं

**Note:** If the response for question no. 24 is 'No' (i.e. code '2'), then skip the rest of section5/  
अगर प्र.24 का उत्तर 'नहीं' (2) है, भाग 5 के बाकी प्र. छोड़ दे

**25. When was the last time when you had sexual intercourse/ आपने आखिरी बार कब संभोग किया था?**

1. Less than a month /एक महीने से कम  
2. 1 month to less than 3 months/1 महीने से लेकर 3 महीने से कम तक  
3. 3 months to less than 12 months/3 महीने से लेकर 12 महीने से कम तक  
4. More than 1 year/1 साल से ज्यादा

**26. During your last sexual intercourse, did you use condoms/आपके आखिरी संभोग के समय क्या आपने कंडोम का प्रयोग किया था?**

1. Yes/हाँ                      2. No/नहीं                      3. Don't remember/ याद नहीं

**27. With whom you had your last sexual intercourse/ आपने आखिरी बार किसके साथ संभोग किया था?**

1. Regular female partner (spouse/lover/girlfriend/Live-in partner)/ नियमित महिला साथी (जीवनसाथी/प्रेमिका/साथ रहने वाले साथी)  
2. Commercial female partner/महिला यौन कर्मी  
3. Non-commercial non-regular female partner (casual partner)/अव्यावसायिक अनियमित महिला साथी  
4. Male Partner/पुरुष साथी  
5. Hijra/Transgender/partner/हिजड़ा/किन्नर साथी

**Note:** Thank the inmate for his support and cooperation and reassure him about the anonymity and confidentiality of answers. Take him to lab technician for blood specimen collection. Ensure that the sample number on data form and blood specimen vial is same/ उनके समर्थन और सहयोग के लिए कैदी का शुक्रिया अदा करें और उन्हें आश्वस्त करें कि उनके द्वारा दिए गए उत्तर नामरहित और गोपनीय रखे जाएंगे। रक्त नमूना के लिए लैब तकनीशियन के पास ले जाएं। सुनिश्चित करें कि डाटा फॉर्म और रक्त नमूना शीशी पर नमूना संख्या समान है।

Signature/हस्ताक्षर:.....

Signature/हस्ताक्षर:.....

Name/ नाम:.....

Name/नाम:.....

(Person who filled the form)/

(Sentinel Site in-charge)/

व्यक्ति जिसके द्वारा फॉर्म भरा गया:

सैंटिनल साइट प्रभारी:

## 6.4. Annexure 4: Data Form Transportation Sheet

### DATA FORM TRANSPORTATION SHEET

(To be sent in duplicate along with the data forms)

- Name and Complete Address of the Sentinel Site/Sub-site:.....  
District:..... State:.....
- A) Type of Site:..... B) Site Code: .....C) Sub-site No:
- Period of Sample Collection:.....(dd/mm/yy) to.....(dd/mm/yy)
- Total No. of Data Forms:.....
- Total Number of Envelopes:.....
- Details of Sample Numbers whose data forms are being sent:

| S. No | Date of Collection | Sample No. | S. No | Date of Collection | Sample No. | S. No | Date of Collection | Sample No. | S. No | Date of Collection | Sample No. |
|-------|--------------------|------------|-------|--------------------|------------|-------|--------------------|------------|-------|--------------------|------------|
| 1     |                    |            | 26    |                    |            | 51    |                    |            | 76    |                    |            |
| 2     |                    |            | 27    |                    |            | 52    |                    |            | 77    |                    |            |
| 3     |                    |            | 28    |                    |            | 53    |                    |            | 78    |                    |            |
| 4     |                    |            | 29    |                    |            | 54    |                    |            | 79    |                    |            |
| 5     |                    |            | 30    |                    |            | 55    |                    |            | 80    |                    |            |
| 6     |                    |            | 31    |                    |            | 56    |                    |            | 81    |                    |            |
| 7     |                    |            | 32    |                    |            | 57    |                    |            | 82    |                    |            |
| 8     |                    |            | 33    |                    |            | 58    |                    |            | 83    |                    |            |
| 9     |                    |            | 34    |                    |            | 59    |                    |            | 84    |                    |            |
| 10    |                    |            | 35    |                    |            | 60    |                    |            | 85    |                    |            |
| 11    |                    |            | 36    |                    |            | 61    |                    |            | 86    |                    |            |
| 12    |                    |            | 37    |                    |            | 62    |                    |            | 87    |                    |            |
| 13    |                    |            | 38    |                    |            | 63    |                    |            | 88    |                    |            |
| 14    |                    |            | 39    |                    |            | 64    |                    |            | 89    |                    |            |
| 15    |                    |            | 40    |                    |            | 65    |                    |            | 90    |                    |            |
| 16    |                    |            | 41    |                    |            | 66    |                    |            | 91    |                    |            |
| 17    |                    |            | 42    |                    |            | 67    |                    |            | 92    |                    |            |
| 18    |                    |            | 43    |                    |            | 68    |                    |            | 93    |                    |            |
| 19    |                    |            | 44    |                    |            | 69    |                    |            | 94    |                    |            |
| 20    |                    |            | 45    |                    |            | 70    |                    |            | 95    |                    |            |
| 21    |                    |            | 46    |                    |            | 71    |                    |            | 96    |                    |            |
| 22    |                    |            | 47    |                    |            | 72    |                    |            | 97    |                    |            |
| 23    |                    |            | 48    |                    |            | 73    |                    |            | 98    |                    |            |
| 24    |                    |            | 49    |                    |            | 74    |                    |            | 99    |                    |            |
| 25    |                    |            | 50    |                    |            | 75    |                    |            | 100   |                    |            |

If space provided above is not sufficient, please attach another sheet.

Data Forms Sent by:.....  
(Name) (Signature) (Tel/ Mobile No.)

Date of Sending Data Forms:.....

Data Forms Received by:.....  
(Name) (Signature)

Date of Receipt of Data Forms:.....

## 6.5. Annexure 5: Sample Transportation Sheet

### SAMPLE TRANSPORTATION SHEET

(To be sent in duplicate along with the samples)

1. Name and Complete Address of the Sentinel Site/Sub-site: .....  
 District: ..... State: .....

2. A) Type of Site: ..... B) Site Code:..... C) Sub-site No:

3. Period of Sample Collection:.....(dd/mm/yy) to.....(dd/mm/yy)

4. Total Number of Samples:.....

5. Total Number of Boxes: .....

6. Details of Sample Numbers:

| S. No | Date of Collection | Sample No. | S. No | Date of Collection | Sample No. | S. No | Date of Collection | Sample No. | S. No | Date of Collection |
|-------|--------------------|------------|-------|--------------------|------------|-------|--------------------|------------|-------|--------------------|
| 1     |                    |            | 26    |                    |            | 51    |                    |            | 76    |                    |
| 2     |                    |            | 27    |                    |            | 52    |                    |            | 77    |                    |
| 3     |                    |            | 28    |                    |            | 53    |                    |            | 78    |                    |
| 4     |                    |            | 29    |                    |            | 54    |                    |            | 79    |                    |
| 5     |                    |            | 30    |                    |            | 55    |                    |            | 80    |                    |
| 6     |                    |            | 31    |                    |            | 56    |                    |            | 81    |                    |
| 7     |                    |            | 32    |                    |            | 57    |                    |            | 82    |                    |
| 8     |                    |            | 33    |                    |            | 58    |                    |            | 83    |                    |
| 9     |                    |            | 34    |                    |            | 59    |                    |            | 84    |                    |
| 10    |                    |            | 35    |                    |            | 60    |                    |            | 85    |                    |
| 11    |                    |            | 36    |                    |            | 61    |                    |            | 86    |                    |
| 12    |                    |            | 37    |                    |            | 62    |                    |            | 87    |                    |
| 13    |                    |            | 38    |                    |            | 63    |                    |            | 88    |                    |
| 14    |                    |            | 39    |                    |            | 64    |                    |            | 89    |                    |
| 15    |                    |            | 40    |                    |            | 65    |                    |            | 90    |                    |
| 16    |                    |            | 41    |                    |            | 66    |                    |            | 91    |                    |
| 17    |                    |            | 42    |                    |            | 67    |                    |            | 92    |                    |
| 18    |                    |            | 43    |                    |            | 68    |                    |            | 93    |                    |
| 19    |                    |            | 44    |                    |            | 69    |                    |            | 94    |                    |
| 20    |                    |            | 45    |                    |            | 70    |                    |            | 95    |                    |
| 21    |                    |            | 46    |                    |            | 71    |                    |            | 96    |                    |
| 22    |                    |            | 47    |                    |            | 72    |                    |            | 97    |                    |
| 23    |                    |            | 48    |                    |            | 73    |                    |            | 98    |                    |
| 24    |                    |            | 49    |                    |            | 74    |                    |            | 99    |                    |
| 25    |                    |            | 50    |                    |            | 75    |                    |            | 100   |                    |

If space provided above is not sufficient, please attach another sheet.

Data Forms Sent by:.....  
 (Name) (Signature) (Tel/ Mobile No.) .....

Date of Sending Data Forms:.....

Data Forms Received by:.....  
 (Name) (Signature) .....

Date of Receipt of Data Forms:.....

## 6.6. Annexure 6: Ethics committee recommendations



Government of India  
Ministry of Health & Family Welfare  
National AIDS Control Organisation  
6<sup>th</sup> Floor, Chandralok Building  
36 Janpath, New Delhi – 110001  
Tel. No. -011-23731810

T-11020/48/2019-NACO (R&D)  
12<sup>th</sup> September, 2019

To

National AIDS Control Organisation (NACO),  
Ministry of Health and Family Welfare,  
Government of India, 9<sup>th</sup> Floor, Chandralok Building  
36 Janpath, New Delhi – 110001

Subject: Recommendations of 15<sup>th</sup> Ethics Committee Meeting on Project titled, 'HIV Sentinel Surveillance Survey among Prisoners'-reg.

I am directed to convey the recommendations of the 15<sup>th</sup> meeting of the NACO-Ethics Committee held on 30-31 July, 2019. The recommendations of the NACO-Ethics Committee are as follows.

### DECISION:

1. The NACO Ethics Committee opined that since this is a service oriented programme there is no need for Ethics Committee review.

Copy for information:

1. PS to JS, NACO/GOI

Yours faithfully  
(Dr Shobini Rajan)  
ADG, NACO

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GOI/NACO/Surveillance/ HSS Plus 2019: Central Prison Sites /16122019

Inmates in prisons are considered as one of the groups who are at higher risk of acquiring HIV infection. The group is included as 8<sup>th</sup> population group for the first time in 2019 round of HIV surveillance under India's National AIDS Control Program (NACP) to monitor the level and trend of the HIV/AIDS prevalence and related risk behaviours among them. This technical report presents the results from the first-round of surveillance among the inmates.



सत्यमेव जयते



संन्यासं कुरु कर्मणाम्

