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India's response to HIV & Sexually Transmitted Infections
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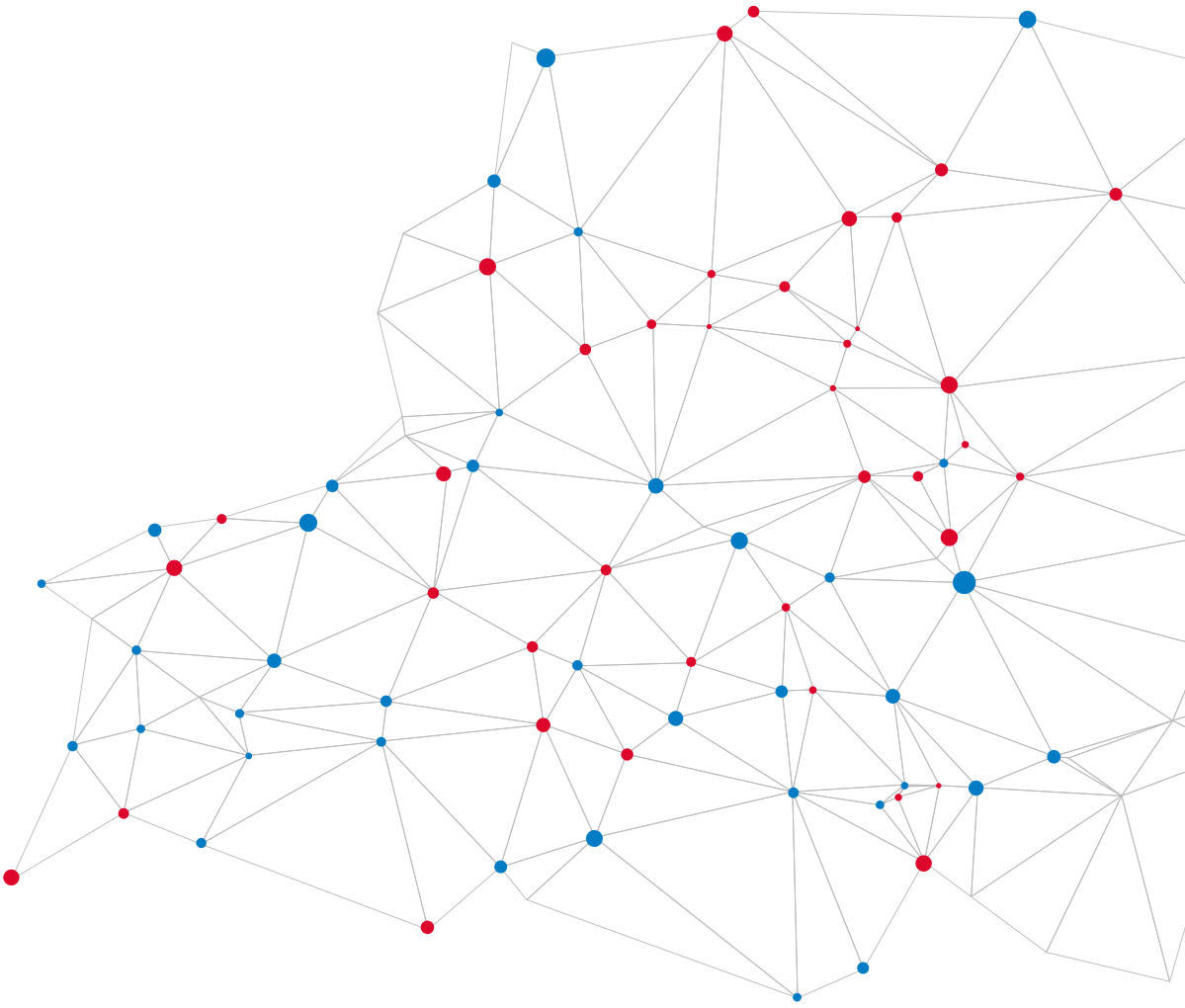
INDIA HIV ESTIMATES 2022

TECHNICAL REPORT



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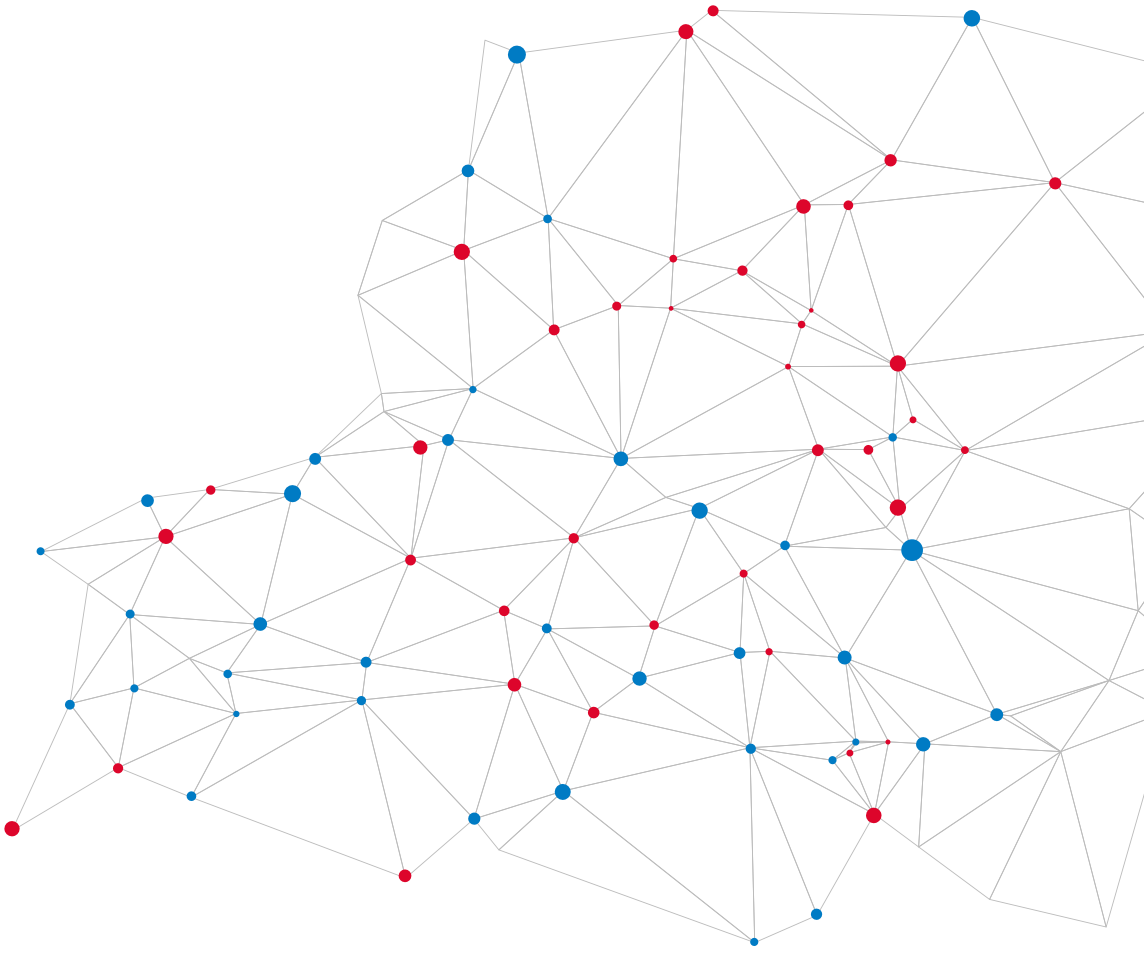

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GoI/NACO/Surveillance & Epidemiology/India HIV Estimates 2022: Technical Report/09112023

सत्यमेव जयते

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Foreword

Disease burden exercise is about quantifying the impact of a disease on the health and well-being of a population. It is fundamental to public health response not only for monitoring the magnitude and trajectory of an epidemic to prioritize locations and populations for interventions but also for allocating resources and evaluating the effectiveness of health policies and programmes. As one of the best practices for evidence-based decision making under the National AIDS and STD Control Programme (NACP) of the Government of India, HIV burden estimation through robust institutional arrangements is integral to the national AIDS response since 1998. Seventeen rounds of HIV burden estimations have been completed under NACP till now.

HIV Estimates 2022, the latest round, updates the evidence on the level and trend of the HIV epidemic in India on key parameters of prevalence, incidence, mortality and elimination of vertical transmission of HIV. These updates are critical to measure country's progress on Goal 1 of reduction of new infections, Goal 2 of reduction of AIDS-related mortality and Goal 3 of elimination of vertical transmission of HIV. Based on UNAIDS's recommended 'Spectrum' model and using the most recent population projections, fertility estimates, programmatic and epidemiological data as inputs, this report details the method, inputs and findings of the HIV burden estimates 2022 by States/UTs.

HIV Estimates 2022 shows that the national AIDS response continues to be successful in preventing new infections, AIDS-related deaths, and vertical HIV transmission. It does, however, also demonstrate rising new infection trends in some States, which is a matter of concern. Despite the decline, the vertical transmission rate is still too high. Clearly there is no room for complacency, and we must constantly push ourselves to broaden the horizon for integrated AIDS response at the most local level to accelerate the country's progress towards ending the AIDS epidemic as a public health threat.

(V. Hekali Zhimomi)

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आज़ादी का अमृत महोत्सव

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निदेशक
Nidhi Kesarwani, I.A.S.
Director

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Preface

Aligned with the United Nations' Sustainable Development Goals 3.3, National AIDS and STD Control Programme (NACP) is committed to ending AIDS epidemic as a public health threat by 2030 through comprehensive prevention, detection and treatment services. Phase-V of NACP targets a reduction of 80% new HIV infections and AIDS-related deaths by 2025-26, compared to the 2010 baseline. Additionally, it aims for dual elimination of vertical transmission of HIV & STI, as well as elimination of HIV/AIDS-related stigma.

In the third year of NACP Phase-V, the 'HIV Estimations 2022: Technical Report' plays a crucial role by providing updated estimates on key indicators of prevalence, incidence, mortality, and need for elimination of vertical transmission of HIV (EVTH) for all States & Union Territories of India. This comprehensive report covers the context, methodology, results (both nationally and at the State/UT levels), and programme implications across five chapters. Highlighting elevated epidemic levels in multiple States in north-eastern India, the report underscores the need for concentrated attention on detailed planning tailored to the specific characteristics of the local epidemic and community contexts.

Spearheaded by NACO's SI-Surveillance & Epidemiology division, ten institutes (AIIMS-New Delhi, ICMR-NIMS-New Delhi, ICMR-NARI-Pune, ICMR-NIE-Chennai, ICMR-NICED-Kolkata, PGIMER-Chandigarh, AIIMS-Bhubaneshwar, AIIMS-Jodhpur, VMMC & SH-New Delhi, and RIMS-Imphal) collaborated under the Integrated and Enhanced Surveillance and Epidemiology Framework of NACP Phase-V. This technical report is a product of these collaborative efforts, and we extend our appreciation to each institute for their role in developing this report. We are confident that the epidemiological insights presented in this report will not only inform stakeholders about the current status of the epidemic but will also inspire them to refine their strategies in pursuit of the 2030 end goal.

(Nidhi Kesarwani)

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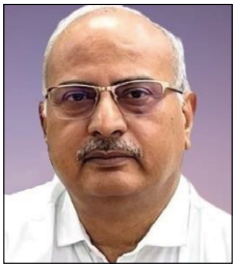

Preface

HIV burden estimation is a major activity within the Integrated and Enhanced Surveillance and Epidemiology (IESE) framework under the National AIDS and STD Control Programme (NACP). National AIDS Control Organisation (NACO) undertakes the estimation process in collaboration with the Indian Council of Medical Research-National Institute of Medical Statistics (ICMR-NIMS) as the apex technical body for HIV estimation in India. The estimates bring forth updated epidemiological evidence for understanding the trends of HIV epidemic and its burden at the national as well as State/Union Territory (UT) levels, which is critical for the decision makers for programme planning and channelizing resources at geographical and key population levels.

The 2022 HIV estimates were generated under the expert guidance of the Technical Sub-Group on HIV Burden Estimation. The methods and results were reviewed and approved by the oversight bodies, namely the Technical Working Group and the Technical Resource Group on HIV Surveillance and Epidemiology, which comprise of epidemiologists, public health experts, demographers, statisticians, and monitoring & evaluation experts. The current round of estimates was computed using the Spectrum version 6.24 as recommended by UNAIDS. The State/UT Spectrum files were updated with the latest demographic as well as programme and epidemiological data. The 2022 estimates provide an updated and sound understanding of the trajectory of HIV epidemic in India in the form of prevalence, incidence and AIDS-related deaths.

I would like to acknowledge the entire ICMR-NIMS team, in particular Dr. Damodar Sahu, Scientist G and Focal Person of HIV Estimations, along with other team members: Dr. KH Jiten Kumar Singh, Scientist E; Dr. Vishal Deo, Scientist C; Dr. Barnali Deka, Project Coordinator; Dr. Anmol Daulat, Junior Consultant (Epidemiology); and Mr. Pravesh Kushwaha, Data Programmer.

Dr. Himanshu Kr. Chaturvedi
Scientist G & Director (In-Charge), ICMR-NIMS
Co-Chair, Technical Sub-Group on HIV Burden Estimation

Message

On behalf of UNAIDS, I would like to recognize the Government of India (GoI) for remaining firmly committed to achieving the Sustainable Development Goal of ending the AIDS epidemic as a public health threat by 2030. To advance towards this goal and build on all the progress made over the last several decades, the National AIDS and STD Control Programme phase-V (2021 to 2026) has been launched by GOI with a sizeable domestic resource envelop allocation and clear targets set for 2026, which include: ensuring an 80% reduction in annual new HIV infections and AIDS-related deaths, and elimination of vertical transmission of HIV. A key data source to monitor progress towards these targets and inform planning and resource allocation process is the annual HIV estimates. The 2022 round of HIV estimates is the latest in the series of HIV estimates in India.

The 2022 round of HIV estimates has been generated by the National AIDS Control Organisation, Ministry of Health and Family Welfare (NACO, MoHFW) in collaboration with ICMR-NIMS, Regional Institutes, and other members of the NACO Technical Sub-Group (HIV Burden Estimation) who have worked under the oversight of the high-level TWG and TRG (Surveillance and Epidemiology) bodies. The 2022 round of HIV estimates have been generated using the UNAIDS-recommended Spectrum software version 6.24 and following rigorous scientific methods and adherence to robust processes.

The HIV estimates highlight the overall declining epidemic at the national level, which is commendable. However, it equally indicates the need to keep reinforcing AIDS response efforts as planned, as 2.467 million people continue to be affected by HIV – and it is important that they get to know their HIV status quickly and are put on treatment and are virally suppressed at the earliest possible. Annual new HIV infections have declined by 42% from 2010 to 2022 (around 66,000 estimated in 2022), which is notable. But more needs to be done to reduce it by 80% from 2010 to 2026 by scaling up HIV prevention efforts and reaching the unreached populations as envisaged under NACP-V. Annual AIDS-related deaths have reduced significantly by nearly 77% from 2010 to 2022 (nearly 40,000 estimated in 2022) because of the free national HIV treatment programme, and these efforts must be sustained and expanded so that the target of 80% decline from 2010 to 2026 can be quickly reached and surpassed in order to achieve zero AIDS-related deaths.

At the State level, the epidemic is highly diverse, for which tailored State and district-level action planning is ever critical. For instance, three States with the highest adult HIV prevalence are in the north-eastern part of India (Mizoram, Nagaland and Manipur). However, considering the total population size, the number of people living with HIV is estimated to be the highest in Maharashtra, Andhra Pradesh, Karnataka, Uttar Pradesh, Tamil Nadu, Telangana, Bihar and Gujarat at over 1,00,000 each. Five States with the highest incidence per 1000 uninfected population include Mizoram, Nagaland, Meghalaya, Manipur and Tripura. The top five States that are estimated to have the highest number of annual new HIV infections in 2022 are Uttar Pradesh, Bihar, Andhra Pradesh, Maharashtra and Karnataka – they also account for the highest need for services to eliminate vertical transmission of HIV. Annual AIDS-related deaths are declining in nearly all States, except for Puducherry, Arunachal Pradesh, Tripura and Delhi where it is estimated to be increasing from 2010 to 2022.

On behalf of UNAIDS, I would like to congratulate NACO, ICMR-NIMS, Regional Institutes and all other members of the Sub-Group (HIV Burden Estimation), TWG and TRG for bringing out these quality estimates. I encourage all stakeholders to review this technical report on the 2022 HIV estimates as it provides rich information on the status of the HIV epidemic in the country and a basis to inform future programme planning, along with other key data, as the NACP-V approaches its mid-year.

UNAIDS remains committed to supporting national efforts led by NACO to achieve the NACP-V goals towards the 2030 Sustainable Development Goals with partners and the civil society.

David Bridger
UNAIDS Country Director for India

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Acknowledgement

The HIV Estimations 2022 report is aimed at updating the State/UT-specific epidemiological data. As in the past, the completion of HIV Estimations 2022 round is a result of collaborative efforts of India's leading epidemiologists, demographers, biostatisticians, community representatives, and programme managers (both State and national). We acknowledge the contributions made by all experts and stakeholders engaged in the process.

The Technical Resource Group (TRG) for HIV Surveillance and Epidemiology, under the Chairpersonship of Ms. V. Hekali Zhimomi (Addl. Secretary & DG, NACO) and the Co-chairpersonship of Dr. Sanjay Mehendale (Former Addl. DG, ICMR), reviewed and approved the process, methods and report for HIV Estimations 2022. We place on record our sincere thanks to the leadership for providing vision, insights and support towards HIV Estimations 2022.

Thorough review of methods and findings of HIV Estimations 2022 was done by the Technical Working Group (TWG) (S&E), under the Chairpersonship of Dr. DCS Reddy (Former Head, Dept. of Community Medicine, BHU, UP) and the Co-Chairpersonship of Dr. Shobini Rajan (CMO-SAG, NACO), and also by the Technical Sub-Group (HIV Burden Estimation) under the Chairpersonship of Prof. Arvind Pandey (Former Director, ICMR-NIMS). Dr. H. K. Chaturvedi (Director-in-Charge, ICMR-NIMS) led the implementation of HIV Estimations 2022 at ICMR-NIMS, New Delhi. Dr. Shashi Kant (Former Head, CCM, AIIMS, New Delhi), Dr. Bilali Camara (Senior Medical Epidemiologist), Dr. Raman Gangakhedkar (Former Head, ECD, ICMR-New Delhi), Dr. John Stover (Avenir Health), Mr. Taoufik Bakkali (UNAIDS), Dr. Keith Sabin (UNAIDS, Geneva), Dr. S.K. Singh (IIPS, India), Dr. Sheela Godbole (ICMR-NARI, Pune), Dr. A. Elangovan (ICMR-NIE, Chennai), Dr. Shanta Dutta (ICMR-NICED, Kolkata), Dr. Sanjay Rai (AIIMS, New Delhi), Dr. P.V.M. Lakshmi (PGIMER, Chandigarh), Dr. H. Sanyaima Devi (RIMS, Imphal), Dr. Arvind Kumar Singh (AIIMS, Bhubaneshwar), Dr. Pankaj Bhardwaj (AIIMS, Jodhpur), Dr. Sumati Muralidhar (VMMC & SH, New Delhi), Dr. David Bridger (UNAIDS India), Dr Melissa Nyendak (CDC India) and Mx Abhina Aher (Community Expert) strengthened the exercise as TRG and TWG members/invitees. We thank all these experts for their critical input and technical guidance at all stages of HIV Estimations 2022.

We express our sincere thanks to Ms. Nidhi Kesarwani (Director, NACO), Dr. A.K. Puri (DDG, NACO), Dr. U.B. Das (Sr CMO-SAG, NACO), Dr. Shobini Rajan (CMO-SAG, NACO), and all Deputy Directors – Dr. Bhawani Singh Kushwaha, Dr. Sai Prasad Bhavsar and Dr. Bhawna Rao. We place on record our sincere thanks to NACO's leadership and programme division officers for providing insights and support towards HIV Estimations 2022.

The implementation of HIV Estimations 2022, including the drafting and finalization of the report, was led by Dr. Pradeep Kumar (NACO) and Dr. Damodar Sahu (ICMR-NIMS). Dr. Subrata Biswas (NACO), Dr. Nidhi Priyam (NACO), Mr. Lalit S. Kharayat (NACO), Ms. Shreena Ramanathan (NACO), Dr. P. Sujith (NACO), Dr. Vishal Deo (ICMR-NIMS), Dr. Barnali Deka (ICMR-NIMS) and Ms. Nalini Chandra (UNAIDS India) undertook the exercise of HIV Estimations 2022, including the activities of data inputs, curve fitting, calibrations, model review and report drafting. UNAIDS India supported the publication of this technical report. We acknowledge each of them for their valuable contributions towards the successful completion of the HIV Estimations 2022 report.

The publication of HIV Estimations 2022 comes at a pivotal moment, providing an assessment of the progress achieved to date and emphasizing the key areas that require attention to reach the 2030 goal of ending AIDS epidemic as a public health threat.

(Dr. Chinmoyee Das)

Contents

Acronyms

AIDS	Acquired Immuno-Deficiency Syndrome
AIM	AIDS Impact Module
AIIMS	All India Institute of Medical Sciences
ANC	Antenatal Care
ANI	Annual New HIV Infection
ARD	AIDS-Related Death
ART	Anti-Retroviral Therapy
ASFR	Age-Specific Fertility Rate
CBR	Crude Birth Rate
CDR	Crude Death Rate
CSAVR	Case Surveillance and Vital Registration
DemProj	Demographic Projection Module
ECDC	European Centre for Disease Prevention and Control HIV Modelling Tool
EPP	Estimation and Projection Package
EVTH	Elimination of Vertical Transmission of HIV
FSW	Female Sex Worker
HIV	Human Immunodeficiency Virus
HRG	High Risk Group
HSS	HIV Sentinel Surveillance
H/TG	Hijra/Transgender people
IBBS	Integrated Biological and Behavioural Surveillance
ICMR	Indian Council of Medical Research
ICTC	Integrated Counselling and Testing Centres
IDU	Injecting Drug User
IESE	Integrated and Enhanced Surveillance and Epidemiology
IIPS	International Institute for Population Sciences
IMR	Infant Mortality Rate
MoHFW	Ministry of Health and Family Welfare
MSM	Men who have Sex with Men

NACO	National AIDS Control Organisation
NACP	National AIDS and STD Control Programme
NFHS	National Family Health Survey
NHM	National Health Mission
NI	National Institute
NIMS	National Institute of Medical Statistics
p-MPSE	Programmatic-Mapping & Population Size Estimation
PLHIV	People Living with HIV
RI	Regional Institute
RT	Routine Testing
SACS	State AIDS Control Society
SIMS	Strategic Information Management System
SRS	Sample Registration System
STD	Sexually Transmitted Disease
TFR	Total Fertility Rate
TI	Targeted Intervention
TWG	Technical Working Group
TRG	Technical Resource Group
UNAIDS	Joint United Nations Programme on HIV and AIDS
UT	Union Territory

Executive Summary

Introduction

Disease burden estimation is an integral part of the National AIDS and STD Control Programme (NACP) to provide updated evidence on the status of the HIV/AIDS epidemic in India. The exercise of model-based HIV estimation is undertaken periodically by the National AIDS Control Organisation (NACO), Ministry of Health and Family Welfare (MoHFW). HIV burden estimation in India is carried out by NACO in accordance with the recommendations of the NACO's Technical Sub-Group (HIV Burden Estimation) and in collaboration with Indian Council of Medical Research – National Institute of Medical Statistics (ICMR-NIMS), New Delhi and other regional institutes for surveillance and epidemiology under NACP. The entire estimation process uses Spectrum software, which is a UNAIDS-supported suite of easy-to-use models to facilitate analysis, planning and advocacy for various public health programmes. HIV Estimates 2022 is the latest round in the series of HIV burden estimation in India under the NACP, based on latest evidence on demographics, programme coverage and epidemiology. Spectrum version 6.24 was employed to generate results for the current round of estimation. The methods and results were duly approved by the Technical Working Group (TWG) (Surveillance & Epidemiology) and the Technical Resource Group (TRG) (Surveillance & Epidemiology) under NACP after extensive deliberations. This technical report presents the comprehensive methodology used in the estimation process, and provides the results on key epidemiological parameters of prevalence, incidence, mortality and associated programmatic needs at the national and sub-national (State/UT) levels.

Process

HIV burden estimation is one of the activities carried out at the national and State/UT-levels by NACO. The rigorous iterative process was initiated in February 2023. The Technical Sub-Group (HIV Burden Estimation) met on 17 February where NACO and ICMR-NIMS presented the methodology and implementation plan for the 2022 round of HIV estimation using Spectrum software. It was further deliberated by the group of experts and stakeholders participating in the national capacity building-cum-consultation workshop held during 21–23 March 2023. Two more meetings of the Sub-Group were held on 12–13 April 2023 and 29 April 2023 to review all the data inputs and methods as well as to validate the results. Methods and results were then presented before the TWG (Surveillance & Epidemiology) in its meeting on 3 May 2023. The State/UT Spectrum models were then revised to include the feedback from the TWG. Subsequently, the method and results of HIV estimation were presented for perusal and approval of the TRG (Surveillance & Epidemiology) on 16 May 2023.

Method

The 2022 round of HIV burden estimation was conducted using the latest version 6.24 of the Spectrum model. Population sizes and its projection till 2036 for 34 States/UTs were updated in the demographic projection module (DemProj module) of Spectrum using the population forecasts from 2011 to 2036 published by the Technical Group, National Commission on Population, in continuation with the key update introduced in the 2021 round of estimation.

DemProj model has two important updates on total fertility rate (TFR) and age-specific fertility rate (ASFR). For the period 2016 to 2020, TFR and ASFR were updated using the latest sample registration system (SRS) reports; and from 2021 to 2036, TFR was projected using the method suggested by the National Commission on Population expert group. Since SRS data was not available for some of the States in the north-eastern (NE) region and UTs, results from the National Family Health Survey (NFHS-4 and NFHS-5) were used in these States/UTs to update both TFR and ASFR for the survey years 2015 and 2021, with interpolation between these two-time points.

Programme data on the number of HIV-positive pregnant women and mothers receiving antiretroviral therapy (ART) for elimination of vertical transmission of HIV (EVTH) and the number of adult males and females as well as children alive and on ART have been updated for the year 2022 in the AIM module of Spectrum. Programme data was entered into the AIDS Impact Module (AIM) after careful deliberation and analysis considering domicile data from Maharashtra/Mumbai, Karnataka, Tamil Nadu, Delhi and Chandigarh. Programme coverage from 2023 to 2036 was projected using a percentage increase in observed values of 2020 and 2021 and applying this rate of increase to future years with a capping at 95% coverage.

The projection of key population sizes from 1981 to 2036 has been updated using the latest key population mapping and size estimation data for the year 2022. The latest population sizes for female sex workers (FSW), men who have sex with men (MSM), injecting drug users (IDU) and hijra/transgender (H/TG) people have been added to 2022 along with the previously estimated 2009 population sizes estimates for FSW, MSM and IDU (for H/TG people, the population size estimate exercise was implemented in 2012 and hence was the year of reference). Population sizes for intermediate years between 2009 and 2022 (2012 to 2022 for H/TG people) have been interpolated, and the percent distribution for the population groups was taken constant for the historical years 1981 to 2009 as well as for the future years 2022 to 2036. Also, the State/UT-wise proportion of females among the total IDU population was updated based on the evidence from the 2022 p-MPSE exercise. Routine testing (RT) data from the antenatal care (ANC) census and targeted intervention (TI) programme have been updated for 2022.

The R-Hybrid model has been used to fit the epidemic curve for the general population in the States/UTs with 10 or more HIV sentinel Surveillance (HSS) sites. The classic model of Estimation and Projection Package (EPP) has been used for fitting the epidemic curve among the general population in the rest of the States/UTs. EPP was also used to fit the epidemic curve for the high-risk group (HRG) population in all States/UTs. HIV prevalence data from NFHS-4 (2015-16) and IBBS (2014–15) were used to calibrate the prevalence curve for the general and HRG populations, respectively.

Results

HIV burden estimates 2022 highlights the latest and updated information on India's HIV epidemic, which would help us understand the trends in key indicators, and thus enable efficient programme planning at the

State/UT levels. There have been declining trends of the HIV epidemic in most States/UTs and a reduction in the number of annual new HIV infections and AIDS-related deaths during the period 2010–2022. However, the progress towards the NACP-V goal of achieving an 80% decline in annual new HIV infections (ANIs) and AIDS-related deaths (ARDs) from 2010 to 2025 would require more intensive and targeted efforts. Key findings from the 2022 round of HIV estimation have been summarized in the following paragraphs.

Adult (15–49 years) HIV prevalence in India has declined considerably since 2000, falling from 0.56% in 2000 to 0.32% in 2010 and further declining to 0.20% in 2022. The NE States of Mizoram, Nagaland and Manipur are estimated to have the highest adult HIV prevalence, followed by Andhra Pradesh, Telangana, Karnataka, Meghalaya and Delhi, with prevalence ranging between 0.70% and 0.30%. The trend in adult HIV prevalence continues to be heterogeneous across States/UTs over the years. Southern States display declining trends, unlike the rising trends in Mizoram, Arunachal Pradesh, Meghalaya and Tripura.

The number of people living with HIV (PLHIV) in India is estimated at around 24.67 lakhs in 2022, with adults (15+ years) accounting for 97% of total PLHIV. States with the highest number of PLHIV are Maharashtra, Andhra Pradesh and Karnataka, followed by Uttar Pradesh, Tamil Nadu, Telangana, Bihar and Gujarat. Together, these eight States account for around 72% of the national PLHIV burden. Maharashtra and Andhra Pradesh are estimated to have more than 3 lakh PLHIV among the adult population (15+ years).

ANIs are estimated at around 66.41 thousand in 2022 in India, with adults accounting for 94% of the total new infections. Uttar Pradesh, Bihar, Andhra Pradesh, Maharashtra and Karnataka are the top five States, with each having ANIs of over 3 thousand cases, collectively representing 48% of the total ANIs. These five States also have the highest estimated ANIs among the adult population. There has been a 42% decline in ANIs at the national level from that of 2010. Kerala has seen the highest decline in ANIs from 2010 at 77%, followed by Telangana, Karnataka, Andaman and Nicobar Islands, Maharashtra and Punjab, unlike the increase observed in Tripura, Arunachal Pradesh, Meghalaya, Assam, DNH&DD and Goa. Estimates of HIV incidence per 1000 uninfected population are highest for Mizoram, Nagaland, Meghalaya, Manipur and Tripura, with incidence rates being above 0.20 in each of these States. The HIV incidence rate was found to be declining in nearly all other States/UTs over the years.

The total number of annual ARDs in India is estimated at around 39.60 thousand in 2022. Andhra Pradesh, Maharashtra and Karnataka have the highest estimated ARD. With more than 6 thousand cases in each State, they account for around 50% of the national total. These three States also have the highest estimated ARD among the adult population. There has been an approximate 77% decline in ARD at the national level from that of 2010. Goa has seen the fastest drop in ARD from 2010 at 90%, followed by Kerala and Telangana, unlike the increase observed in Puducherry, Arunachal Pradesh, Tripura and Delhi. ARD per 1,00,000 population is estimated to have declined from 25.75 in 2005 to 14.34 in 2010 and reduced further to an estimated 2.90 in 2022. It is estimated to be highest in Manipur, followed by Andhra Pradesh, Nagaland, Karnataka and Mizoram. The trend in AIDS mortality rate is estimated to be declining in nearly all other States/UTs over the years.

The estimated number of HIV-positive mothers needing EVTH-related services is estimated at around 20.70 thousand in 2022, indicating a 34% decline since 2010. Bihar, Maharashtra, Uttar Pradesh, Andhra Pradesh and Karnataka are the five States with the highest need, accounting for 49% of the total EVTH-related services need in India.

Chapter 1
Introduction

Overview

India has developed a robust HIV sentinel surveillance (HSS) system for tracking of HIV trends and to understand the epidemic patterns at national, State and district levels. The data collected through this system play a crucial role in making informed decisions and shaping policies related to HIV prevention and treatment. The primary sources of information used for policy formulations for the prevention and control of HIV/AIDS in India are the estimations on adult HIV prevalence, the total number of PLHIV, incidence (ANIs), annual ARDs, and need of services for elimination of vertical transmission of HIV (EVTH). These key indicators provide meaningful insights on the burden and trends of the HIV epidemic, and are critical resources for programme planning, prioritization and resource allocation process.

India has adopted the ambitious '95-95-95' fast-track targets to end the global AIDS epidemic. Decentralized, sub-national-level programme planning, implementation and monitoring is an integral component of NACP. New strategies have been adopted by NACO such as 'Dolutegravir-based regimen', 'Treat All', 'Mission Sampark' and 'Sampoorna Suraksha Kendra.'

Model-based HIV estimates are crucial information in a country like India as it is not possible to enumerate PLHIV by performing census-based testing of each individual for HIV regularly. Similarly, it is not possible to count the number of ARD because it will require investigation into the cause of all reported deaths. Model-based estimates provide scientifically appropriate and programmatically acceptable information on the level and trends of the HIV epidemic, which can inform decisions related to resource allocation and planning and insight into the impact of the AIDS response.

HIV Estimation 2022

The first HIV estimation in India under NACP was conducted in 1998 using an indigenous spreadsheet method. Since then, the process of HIV estimation in the country has evolved significantly, marking a substantial advancement in our understanding and monitoring of the HIV epidemic. Estimates for key HIV indicators in 2022 have been generated using the software Spectrum version 6.24. The Spectrum is continuously updated and improved to provide epidemic update using the latest evidence. These newer versions are improved to reflect the emerging scientific evidence as per the recommendation of the UNAIDS team on HIV Estimates, Projections and Modelling. A detailed explanation of the recent modifications in the Spectrum version for generating estimates can be found in Chapter 2.

HIV burden estimation is a periodic exercise under the robust surveillance and epidemiology system of NACP in India. NACO has designated the Indian Council of Medical Research-National Institute of Medical Statistics (ICMR-NIMS), New Delhi, as the nodal institute to anchor the HIV burden estimation under the guidance of the NACO's Technical Sub-Group (HIV Burden Estimation), Technical Working Group (Surveillance and Epidemiology) (TWG-S&E) and Technical Resource Group (Surveillance and Epidemiology) (TRG-S&E). The members include multidisciplinary subject matter experts and representatives from national and regional institutes (S&E), State AIDS Control Societies (SACS), International Institute for Population Science (IIPS), independent experts, other key national partners who are part of the national surveillance and epidemiology system, and UNAIDS.

The 2022 HIV estimates provide the updated and most comprehensive information on the HIV epidemic, where HIV estimates on the following key indicators have been generated at the national level and for 34 States/UTs by age, sex and population group: adult HIV prevalence (number of PLHIV), HIV incidence (number of ANIs), mortality (number of annual ARDs), and need of services for EVTH.

There are five chapters in the technical report on HIV estimates. This first chapter introduces the objectives and process of generating the HIV estimates for the national and State/UT-levels. The second chapter describes the tools and methods used for the generation of estimates. The third and fourth chapters highlight the results on various indicators for India and States/UTs, respectively. The fifth chapter presents a discussion of the key findings. The report also has nine annexures. The members of the NACO's Sub-Group (HIV Burden Estimation) are presented under annexure 1. Annexure 2 highlights the institutional arrangements for surveillance and epidemiology. The members of NACO's TWG and TRG are presented under annexures 3 and 4 respectively. Annexures 5–8 present estimates on key indicators at the national and State/UT levels. State/UT-wise factsheets are presented in Annexure 9.

Objectives

The overarching objective of the 2022 HIV estimation round is to generate HIV estimates using the latest demographic, programme and epidemiological data inputs, updated tools and methods, and to follow a rigorous scientific process.

The specific objectives of 2022 HIV estimations are as follows:

1. To generate HIV estimates for the key indicators of adult HIV prevalence (number of PLHIV), HIV incidence (number of ANIs), mortality (number of annual ARD) and need of services for EVTH for 34 States/UTs using the latest UNAIDS-recommended Spectrum modelling tool version 6.24.

2. To analyse the epidemic patterns at various geographic levels, understand key trends, and measure progress towards the following national targets listed in the NACP-V (2021–2026): progress towards achieving an 80% decline in ANIs as well as ARD from 2010 to 2026, and EVTH by 2025.

This report focuses on the method, results and key findings from the 2022 HIV estimation exercise, which has been implemented at the national and State/UT levels.

Process

HIV estimation is one of the major activities under the NACO's Integrated and Enhanced Surveillance and Epidemiology Framework (IESE) for NACP-V, which was carried out by the Sub-Group (HIV Burden Estimation), TWG-S&E and TRG-S&E. NACO and ICMR-NIMS presented the method for 2022 HIV estimates using Spectrum modelling tool at the Capacity Building-cum-Consultation workshop, held during 21–23 March 2023. To compile this technical report on HIV estimates for 2022, a series of steps were followed (see Table 1):

Table 1: Key Steps in the 2022 HIV Estimation Process

S. No	Steps	Date
1	Regional Capacity Building Workshop	30 January – 3 February 2023
2	First meeting of the Technical Sub-Group to discuss timeline and process	17 February 2023
3	Capacity Building-cum-Consultation Workshop	21–23 March 2023
4	Inputs data compilation, review and finalization	24 March – 5 April 2023
5	Creation of State-wise projections, their review and finalization	6–11 April 2023
6	Second meeting of the Technical Sub-Group to review curve fitting	12–13 April 2023
7	Incorporation of inputs/feedback from the second Sub-Group meeting	14–28 April 2023
8	Third meeting of the Technical Sub-Group review draft results	29 April 2023
9	Incorporation of inputs/feedback from third Sub-Group meeting	30 April – 2 May 2023
10	Meeting of the TWG for presentation of method and results	3 May 2023
11	Incorporation of inputs/feedback TWG and Preparation for the TRG	4–15 May 2023
12	Meeting of the TRG for presentation of method and estimates	16 May 2023

Chapter 2
Methodology and Data Inputs

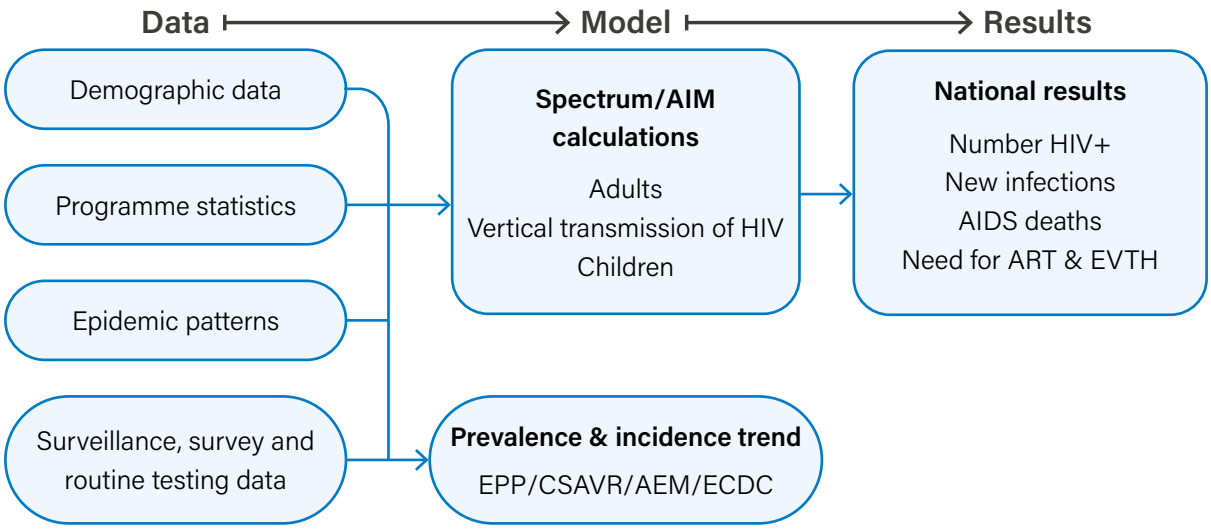
The HIV estimates for 2022 were generated using the Spectrum modelling programme version 6.24 and scientific methodologies confirmed by the National Technical Resource Group (TRG) on HIV Surveillance and Epidemiology. This chapter delivers a summary of the techniques and approaches used to create the 2022 HIV estimates at the national and State/UT levels.

Tool

Since 2006, the UNAIDS-supported Spectrum programme has been used in India for HIV estimation along with the Estimation and Projection Package (EPP). EPP was incorporated as part of the Spectrum AIM (AIDS Impact Module) in 2011 and has since been employed.

HIV estimation uses two modules – DemProj for demographic projections, and AIM for predicting the effects of the epidemic and providing estimates on key indicators for programme planning such as prevalence, incidence and death. Figure 1 depicts the Spectrum (AIDS Impact Module) conceptual framework.

Figure 1: Spectrum Model Overview



Every year, the Spectrum software is updated based on evidence generated from the most recent global studies recommended for inclusion by an international group of multidisciplinary experts from various countries who are members of the UNAIDS Global Reference Group on HIV Estimates, Projections and Modelling.

UNAIDS-recommended Spectrum 6.24 version was employed for HIV projections in 2022. There were a few modifications in the Spectrum 6.24 version vis-à-vis 6.18 version which was used for the 2021 cycle. The

box below summarizes some of the important improvements made to the Spectrum model for concentrated epidemics. More information can be found elsewhere.[1]

Box 1: Improvements Made to the State/UT Spectrum Model for Concentrated Epidemics

- Two major updates in DemProj included updating TFR and ASFR.
- TFR was updated from 2016 to 2020, taking values from the latest SRS reports.
- TFR was projected for the year 2021–2036 using the same method proposed by the Technical Group for Population Projection of the Ministry of Health and Family Welfare (MoHFW).
- TFR was calculated using NFHS-4 and NFHS-5 for small States in the NE region and UTs where SRS data was not available. The data was interpolated between the two years of 2015 and 2021.
- In DemProj, the ASFR distribution was also updated. ASFR for the years 2016–2020 was updated using SRS reports. Similarly, NFHS data was used for the small NE States and UTs.
- In EPP model, a major update was to include all four major categories of HRGs in all the States, which was not available in the 2021 estimation.
- Key population in EPP model was updated by using the latest data from NACP.
- Key population as a proportion of total 15–49 years was calculated in Spectrum and assumed to be constant for future years from 2022 to 2036.
- Data on key population size estimates was available for FSW, MSM and IDU for the year 2009, while for H/TG people it was available for the year 2012 from the earlier round of key population mapping and size estimation exercise. That data was inputted to the years 2009 and 2012 respectively in Spectrum. Interpolation was done for the period 2009–2022 (or 2012–2022 for H/TG people).
- Another major change was to update the proportion of males who were assumed to be IDU in the population configuration section of Spectrum. Till the last 2021 HIV estimation round, 90% of IDUs were assumed to be males. This was updated considering the data from the Programmatic Mapping and Population Size Estimation (p-MPSE) conducted by NACO in 2022.

Method

The NACO Sub-Group (HIV Burden Estimation) constructed 34 unique State/UT Spectrum models to generate State/UT-specific information on key epidemic indicators. The aggregate function of the Spectrum modelling tool was used to obtain national-level results by aggregating the State/UT models.

As a result, before obtaining national estimates, the initial step was to create the 34 State/UT models. Similar to the previous rounds, the technique employed was to view the final Spectrum files from the previous estimates rounds, update them in the newest version of the Spectrum and add the most recent data.

In the 2022 round, the changes made in the demographic part are as follows. In the DemProj model, the TFR and ASFR were updated. TFR was updated from 2016 to 2020 using SRS and NFHS. The major update in the AIM was to include all HRGs in all the States and UTs.

[1] For further reference please visit the UNAIDS Reference Group on Estimates, Modelling and Projections, https://www.epidem.org/

Step 1: Updating the Total Fertility Rate

- **In major States:** TFR was updated for the years 2016–2020, considering the observed values from the latest SRS reports. TFR was projected for the years 2021–2036 using the same method that was used by the MoHFW's Technical Group for Population Projection.

- **For small States in the NE region and UTs where SRS data was not available:** NFHS-4 and NFHS-5 were considered for the years 2015 and 2021 (and interpolating between the two survey years). For the future years, the population was projected by ICMR-NIMS as it was not available in the report of the MoHFW's Technical Group for Population Projection.

Step 2: Updating the Demographic Projections in DemProj for Age-Specific Fertility Rate

- **For major States:** For the years 2016–2020, ASFR was updated considering the observed values from the latest SRS reports. For the period 2021–2036, ASFR was kept constant as per the last observed value from SRS.

- **For small States in the NE region and UTs:** ASFR data was updated from NFHS-4 and NFHS-5 for the years 2015 and 2021 (and interpolating between the two survey years). For the period 2022–2036, ASFR was kept constant as per the last observed value from NFHS-5.

Base year and Census years: The Sub-Group (HIV Burden Estimation) noted that during the earlier estimation rounds, steps had been taken to ensure that there was a perfect match between the population numbers by sex and age group in the DemProj system's output and the various Census years: 1981, 1991, 2001 and 2011 using a smoothening statistical technique. Because of several issues, including age under-reporting, age misreporting, and age not reporting, the population numbers by age and sex for the base year as provided by the Census for each State/UT could not be directly included.

As a result, the population for the base year was modified to reflect an equal distribution of 'age-not-stated population' across all age groups. Age-not-stated population was taken into account before applying the Strong method, which was employed by the MoHFW's National Commission on Population Expert Group for the 2006 population forecast. This smoothing operation was performed for the 1981, 1991, 2001 and 2011 Census years. DemProj received the population data after it had been normalized and smoothed.

Key revisions for the projection period beginning in 2011 were introduced by this Sub-Group. These updates pertain to population forecasts for the years 2011 through 2036. The Sub-Group examined the population forecasts for the years 2011–2036 from the MoHFW's National Commission on Population Expert Group and compared them with those from DemProj, which were utilized during prior estimating rounds. The comparison was done using 2022 as the reference year, and it found very modest variations.

To maintain consistency with the prediction produced by the Technical Group on Population Projection at the National Commission on Population, MoHFW, Government of India, the Sub-Group agreed to update the population size for the projected period of 2011–2036 in DemProj. The national technical group's forecasts were considered while updating the indicators of TFR, ASFR, sex ratio at birth, life expectancy at birth by sex, and net migration by age and sex for the years 2011–2036.

Level and age-sex pattern of mortality: From 1981 to 1985, 1986 to 1990, 1991 to 1995, 1996 to 2000, 2001 to 2005, and 2002 to 2007, information on life expectancy by sex from the SRS reports was used. According to the methodology used by the MoHFW's National Commission on Population Expert Group, life expectancy was projected for the years 2008 through 2036. The model life tables were used to get

the equivalent value for each estimate of infant mortality rate (IMR). Except for Meghalaya, where the UN South-Asia model life table was taken into account due to high newborn mortality rate, the Coale-Demeny West model life table for the age-sex pattern of mortality was used.

Net migration: Based on the available Census volume, age-sex distribution and migration data for various Census years beginning in 1981, 1991 and 2001, as well as crude birth rate (CBR) and crude death rate (CDR) data from SRS, inputs on net migration were obtained using various methodologies. The necessary inputs were obtained using both direct and indirect approaches. For the years 1981–1991 and 1991–2001, the direct approach required data on place of residency, duration (0–9 years) and place of enumeration. For the years 1991–2001, the direct approach was used to estimate the age and sex distribution of migrants based on their location, duration (0–9 years) and site of enumeration. Vital statistics (birth and death rates) were used to apply the indirect residual approach for the years 2001 through 2011.

From 2011 to 2036, the same approach was proposed by the National Commission on Population expert group on population projection.

Net migrants = (Population 2011 – Population 2001) – (Births – Deaths)

Step 3: Updating the Input Data in the AIM Module

Treatment eligibility standards: Considering the national policy for the projected period, AIM was given the treatment eligibility standards for adults and children. The treatment eligibility (based on CD4 level) for adults had already been entered under the previous estimates cycle and for the years 1981 to 2036 as follows: 200 cells/µl up to 2008; 250 cells/µl from 2009 to 2011; 350 cells/µl from 2012 to 2015; and 500 cells/µl in 2016. In 2017, the 'Treat All' Policy was introduced (reflected as 999 cells/µl in Spectrum), which was inputted from 2017 to 2026 and has now been extended to 2036. Similarly, the treatment eligibility criteria for children were also updated considering the evolving national policy — the latest being 'Treat All' in 2017.

Programme coverage statistics: Programme data on the number of HIV-positive pregnant women/mothers getting EVTH-related services, the number of adult males and females who are on ART, and the number of children who are on ART need to be entered. For the duration of the projected period, year-wise data had to be entered. Data from 2004 onwards, when free ART became available under NACP, up to 2021 had already been included in the previous estimate phase. Data for the year 2022 had to be included as well for the estimating cycle in 2022. Data collected from the programme monitoring system of NACP was used to provide this information.

Data for the 2022 programme treatment was then entered into AIM. This came about through careful examination, evaluation and reconciliation taking private sector data and addressing information of patients seeking care at major medical centres in Delhi, Chandigarh, Mumbai/Maharashtra, Tamil Nadu, West Bengal and Telangana from outside their home States/UTs. For projecting the treatment coverage for the period 2023–2036, the earlier method used by the Sub-Group (HIV Burden Estimation) was retained, which was to apply the rate of scale-up observed over the last few years to the future years and flatlining it at 95% coverage once reached.

Updating the epidemic configuration: The Spectrum State/UT models have already been built up to reflect the sort of epidemic that is concentrated in India. The Sub-Group examined how each demographic category was represented in the epidemic structure of State/UT models. Since 2008, the general population has been accounted for in the epidemic configuration for all 34 States and UTs.

As advised by the Sub-Group (HIV Burden Estimation) and TWG, the latest 2022 key population mapping and size estimation data available from NACP was used to update the key population size data for the year

2022 in EPP. The percent distribution of the population by various groups (key population and general population) was calculated in Spectrum and assumed to be constant for future years from 2022 to 2036. Percent distribution of the population by various groups (key population and general population) were calculated in Spectrum for the years 2009 for FSW, MSM and IDU based on the population size estimate data available for them (and for H/TG people, data for 2012 was available based on the population size estimate done at that time), and assumed to be constant for historical years 1981–2009. Interpolation for the key population data for FSW, MSM and IDU was done for the period 2009–2022 (for H/TG people, interpolation was done for the period 2012–2022).

Table 2: Population Sub-Groups Represented in States/UTs in 2022

S. No	State/UT	General Population	MSM	FSW	IDU	H/TG People
1	Andaman and Nicobar Islands	✓				
2	Andhra Pradesh	✓	✓	✓	✓	✓
3	Arunachal Pradesh	✓	✓	✓	✓	
4	Assam	✓	✓	✓	✓	✓
5	Bihar	✓	✓	✓	✓	
6	Chhattisgarh	✓	✓	✓	✓	✓
7	Chandigarh	✓	✓	✓	✓	✓
8	Delhi	✓	✓	✓	✓	✓
9	DNH&DD	✓				
10	Gujarat	✓	✓	✓	✓	✓
11	Goa	✓	✓	✓	✓	✓
12	Himachal Pradesh	✓	✓	✓	✓	
13	Haryana	✓	✓	✓	✓	✓
14	Jharkhand	✓	✓	✓	✓	✓
15	J&K and Ladakh	✓		✓	✓	
16	Karnataka	✓	✓	✓	✓	✓
17	Kerala	✓	✓	✓	✓	✓
18	Meghalaya	✓	✓	✓	✓	
19	Maharashtra	✓	✓	✓	✓	✓
20	Manipur	✓	✓	✓	✓	✓
21	Madhya Pradesh	✓	✓	✓	✓	✓
22	Mizoram	✓	✓	✓	✓	
23	Nagaland	✓	✓	✓	✓	
24	Odisha	✓	✓	✓	✓	✓
25	Punjab	✓	✓	✓	✓	✓
26	Puducherry	✓	✓	✓		✓
27	Rajasthan	✓	✓	✓	✓	✓
28	Sikkim	✓		✓	✓	
29	Telangana	✓	✓	✓	✓	✓
30	Tamil Nadu	✓	✓	✓	✓	✓
31	Tripura	✓	✓	✓	✓	
32	Uttarakhand	✓	✓	✓	✓	✓
33	Uttar Pradesh	✓	✓	✓	✓	✓
34	West Bengal	✓	✓	✓	✓	✓

The 2021 HSS round, which comprised the FSW, MSM, H/TG people and IDU populations as well as ANC participants (who acted as a proxy for the general population), was administered using the NACO's Surveillance system. These data were rigorously checked by NACO, ICMR-NIMS, NI-AIIMS and Regional Institutes before being incorporated into the Spectrum model to filter out outliers and allocate data to the correct places in case of name changes. A second evaluation of the model's input data from earlier iterations of the HSS was performed to identify and correct any inconsistencies.

When the population-specific data was not available, such as when there were less than three years of data points for one HSS site or two years of data points for two HSS sites, NACO provided the population-specific data for the HRG population.

One of the main updates made was the inclusion of ANC RT data for the year 2022. As in previous rounds, the ANC positivity statistics for the most recent years were inputted under the ANC Census for the general population. These data were available from NACO Stand-alone integrated counselling and testing centres (ICTCs) and were included. The data entered for 2010–2021 in the preceding estimate rounds did not change. Another update was the inclusion of RT data for key population groups, which was inputted for the last three years in the surveillance page of Spectrum. These data were made available from the Targeted Intervention programme of NACP.

Data from population-based surveys were utilized to inform the epidemic curve fits and calibrations in the EPP for HIV Estimations 2022, as in the previous rounds. The general population group was studied using information from the NFHS-3 and NFHS-4. Prevalence data from Integrated Biological and Behavioural Surveillance Survey (IBBS) 2014–2015 was used for HRG populations. The population-based prevalence was utilized to inform both curve fits and calibrations for States/UTs where data from both NFHS-3 and NFHS-4 were available. It was used for calibration for States/UTs where only NFHS-4 data was available.

Step 4: Curve Fitting

Curve fitting parameters remain the same as the last rounds. Epidemic curves fitting using R-hybrid for the general population in States with a large number of sites (10 or more HSS sites) and EPP classic model for the general population in States/UTs with a lesser number of sites (less than 10 HSS sites) was used. EPP classic model was used for HRG population in all States/UTs.

Step 5: Calibration

The calibration of the HIV prevalence curve using information from large-scale population representative surveys was the second-to-last phase in the process of HIV estimate modelling. The general population prevalence curves for States/UTs were calibrated using NFHS-4, 2015–16 data (95% CI), using the same procedure as in the earlier rounds. The HRG population prevalence curves were calibrated using the IBBS data for the years 2014–15 as in the earlier rounds.

Step 6: Results Generation, Validation and Uncertainty Analysis

The last phase involved reviewing the key indicator findings for each State/UT and validating them using information from several sources, including the NFHS, programme monitoring data, and local HIV epidemic intelligence. The 'uncertainty bounds' were then determined through the use of uncertainty analysis.

Chapter 3
National-Level Estimates

This chapter illustrates the national HIV epidemic by providing the estimates for key indicators: adult HIV prevalence (15–49 years), total number of PLHIV, HIV incidence, AIDS-related mortality, and need of services for EVTH.

Table 3: National Summary of the HIV/AIDS Epidemic in 2022

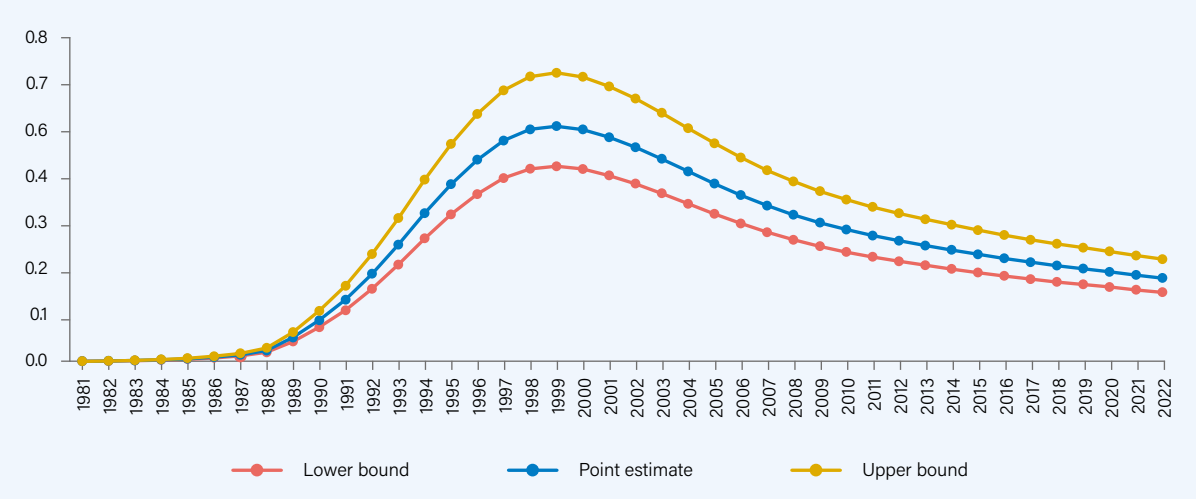
Indicator	Category	Value
Adult (15–49 years) prevalence (in %)	**Total**	**0.20 (0.17–0.25)**
	Male	0.22 (0.18–0.27)
	Female	0.19 (0.16–0.23)
Number of people living with HIV (in lakhs)	**Total**	**24.67 (20.84–29.52)**
	Adult (15+ years)	23.99 (20.29–28.70)
	Women (15+ years)	10.86 (9.19–12.94)
	Children (<15 years)	0.68 (0.55–0.85)
	Young people (15–24)	1.70 (1.31–2.25)
HIV incidence per 1000 uninfected population	**Total**	**0.05 (0.03–0.08)**
	Male	0.05 (0.03–0.09)
	Female	0.04 (0.03–0.07)
New HIV infections (in thousands)	**Total**	**66.41 (41.51–106.94)**
	Adults (15+ years)	62.28 (38.71–100.63)
	Women (15+ years)	26.11 (16.19–42.06)
	Children (<15 years)	4.13 (2.53–6.50)
	Young people (15–24)	15.94 (9.72–25.71)
Decline in new HIV infections since 2010 (%)	**Total**	**42.17**
	Adults (15+ years)	38.97
	Female (15+ years)	38.60
	Children (<15 years)	67.68
	Young people (15–24)	44.04
AIDS- related deaths per 1,00,000 population	**Total**	**2.90 (1.89–4.53)**
	Male	3.87 (2.63–5.79)
	Female	1.87 (1.02–3.29)

Indicator	Category	Value
AIDS-related deaths (in thousands)	**Total**	**39.63 (25.79–61.95)**
	Adults (15+ years)	37.44 (24.49–58.46)
	Women (15+ years)	11.38 (6.18–20.14)
	Children (<15 years)	2.18 (1.13–3.90)
	Young people (15–24)	1.05 (0.62–1.82)
Decline in AIDS-related deaths since 2010 (%)	**Total**	**76.57**
	Adults (15+ years)	76.26
	Female (15+ years)	81.07
	Children (<15 years)	80.88
	Young people (15–24)	69.27
Need of services for EVTH (in thousands)	**Total**	**20.74 (16.91–25.75)**
MTCT rate of HIV (%)	**Total**	**19.91 (14.84–25.55)**

Adult HIV Prevalence (15–49 years)

Overall, the estimated adult HIV prevalence (15–49 years) has been declining in India since the epidemic's peak in 2000 when it was estimated at 0.56%, decreasing to 0.32% in 2010, and further reducing to an estimated 0.20% in 2022. In 2022, HIV prevalence among the adult male population was estimated at 0.22% while among the adult female population, it was 0.19%.

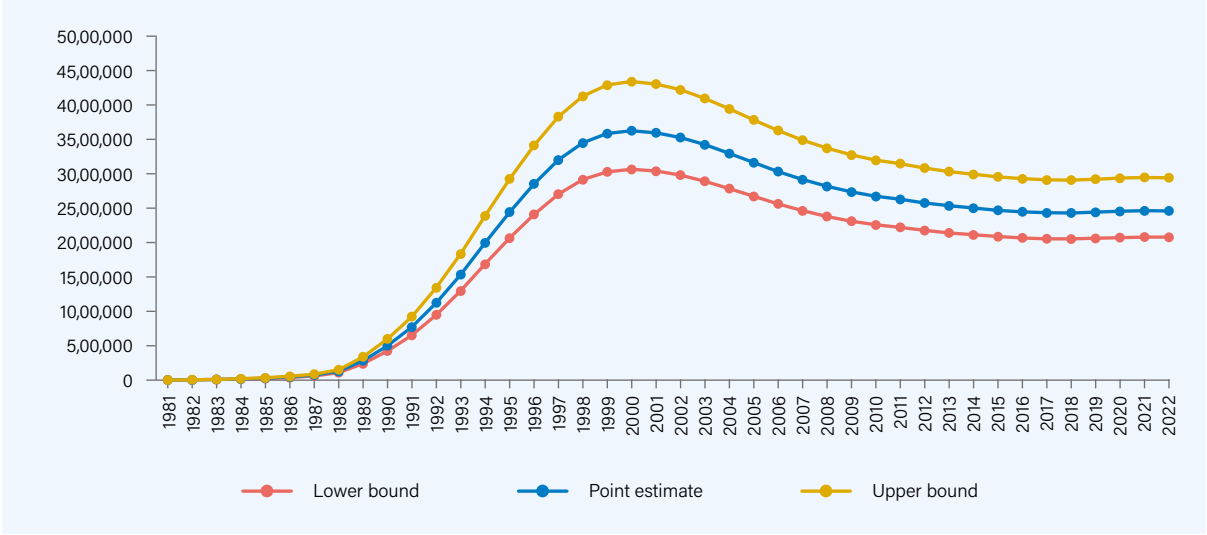
Figure 2: Estimated Adult HIV Prevalence (%) in India (1981–2022)



Number of People Living with HIV

The number of PLHIV was estimated at 24.67 lakhs in 2022. Adults (15+ years) were estimated to account for 97% (23.99 lakhs) of the total infections, while children (0–14 years) were estimated to account for 3% (0.68 lakh) of the same. Young people (15–24 years) were estimated to account for 7% (1.70 lakhs) of the total PLHIV cases. In terms of sex disaggregation, adult male and female populations accounted for 53% and 44% of the total estimated PLHIV in 2022, respectively.

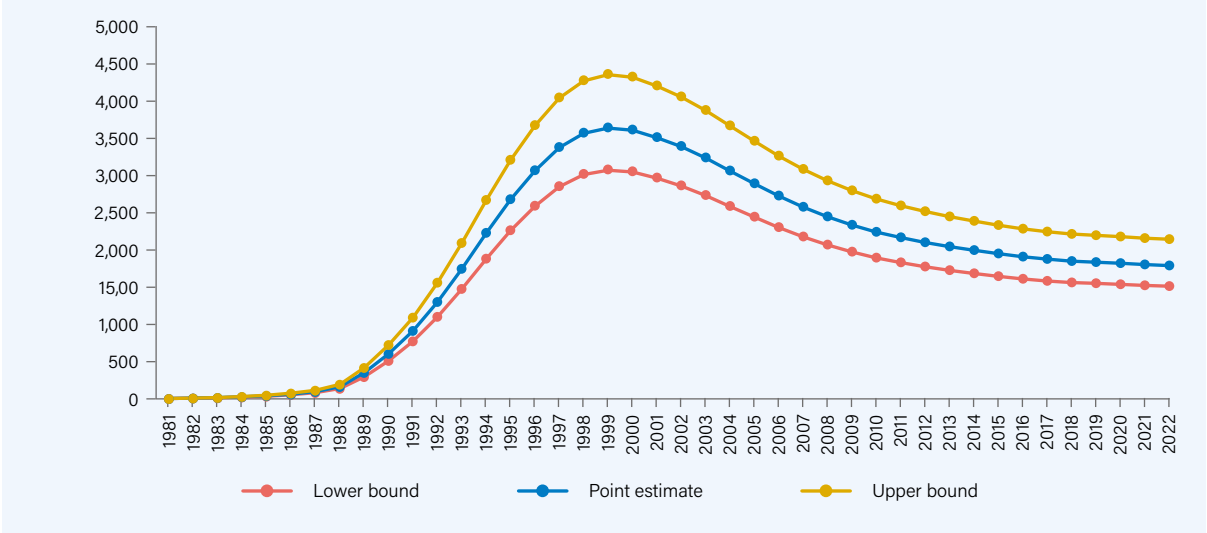
Figure 3: Estimated Number of PLHIV in India (1981–2022)



Number of People Living with HIV per Million Population (or per Ten Lakh Population)

The number of PLHIV per million population has also been declining since the epidemic's peak. This was estimated at 1,798 in 2022.

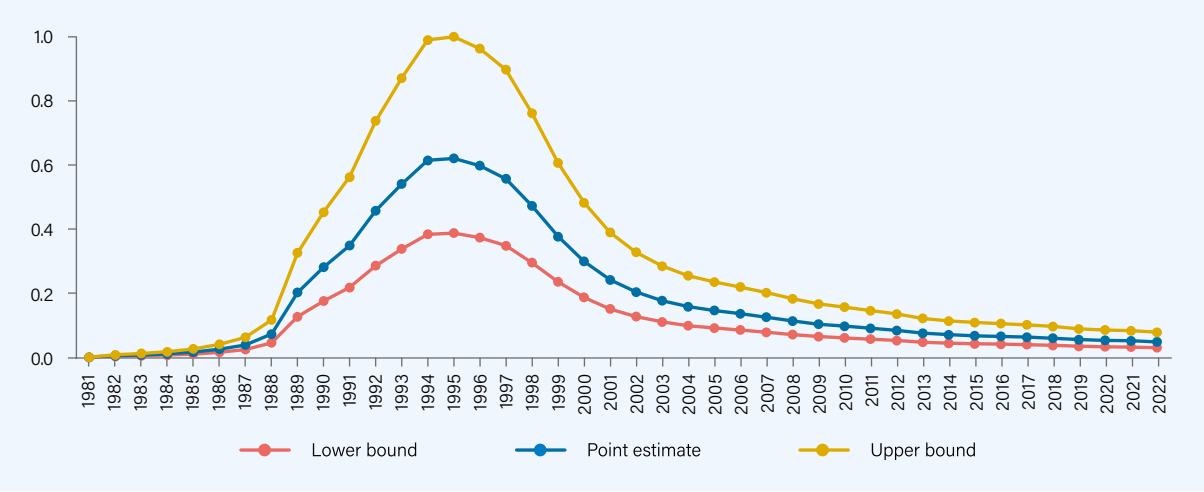
Figure 4: Estimated Number of PLHIV per Million Population in India (or per Ten Lakh Population (1981–2022)



HIV Incidence per 1000 Uninfected Population

Prevention of new HIV infections is a key focus of the NACP. HIV incidence per 1000 uninfected population is a critical indicator to measure progress and impact of the various prevention efforts. HIV incidence per 1000 uninfected population declined from 0.60 in 1996 to 0.10 in 2010 and reduced further to an estimated 0.05 in 2020. This level was maintained from 2020 to 2022. HIV incidence among the male population was estimated at 0.05 while among the female population, it was estimated at 0.04 in 2022.

Figure 5: HIV Incidence per 1000 Uninfected Population in India (1981–2022)

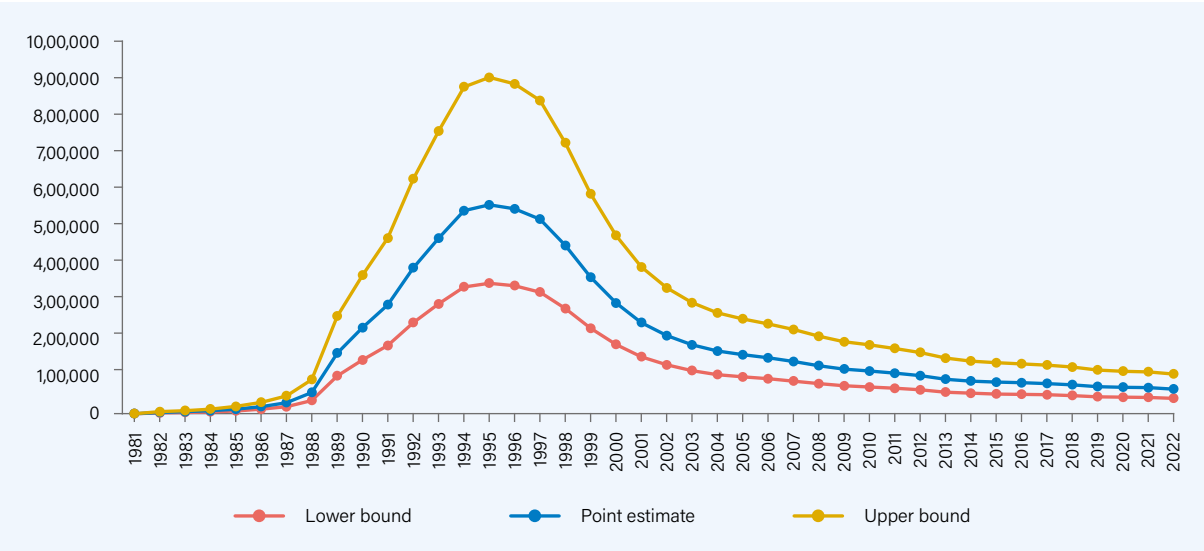


Number of Annual New HIV Infections

The number of ANIs in 2022 was estimated at 66.41 thousand. Adults (15+ years) accounted for almost 94% (62.28 thousand) of the total new infections, while children (0–14 years) accounted for 6% (4 thousand) of the total. The number of new HIV infections among young people (15–24 years) was estimated at around 16 thousand in 2022. In terms of sex disaggregation, the adult female population accounted for around 39% of the total number of ANIs, while the adult male population accounted for around 55% of the total.

Estimated ANIs have been declining with the scale-up of HIV prevention interventions under the various phases of the NACP. From 1997 to 2010, ANIs declined rapidly by 78%. The total decline from 2010 to 2022 was estimated to be 42%; while among the adult female population (15+ years), the decline was estimated at around 39%; and among children (0–14 years), the decline was estimated at around 68%.

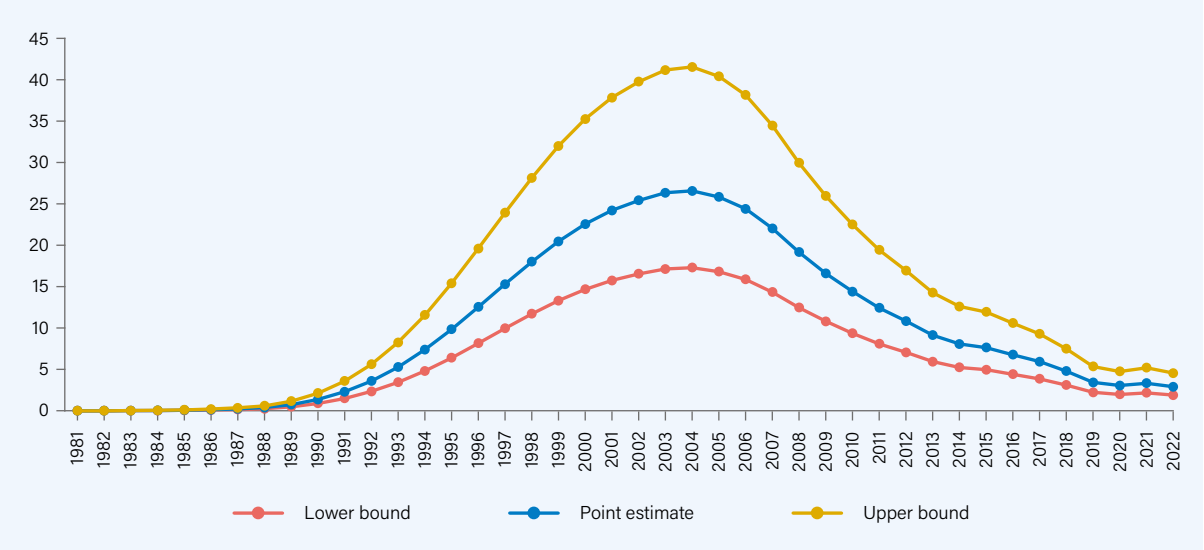
Figure 6: Number of Annual New HIV Infections in India (1981–2022)



AIDS-Related Deaths per 1,00,000 Population

With the scaling up in treatment coverage, ARD per 1,00,000 population have been declining since 2005. ARD per 1,00,000 population was estimated to have declined from 25.75 in 2005 to 14.34 in 2010 and reduced further to an estimated 2.90 in 2022. Among the male population, ARD per 100 thousand population was estimated at 3.87, while among females it was estimated at 1.87 in 2022.

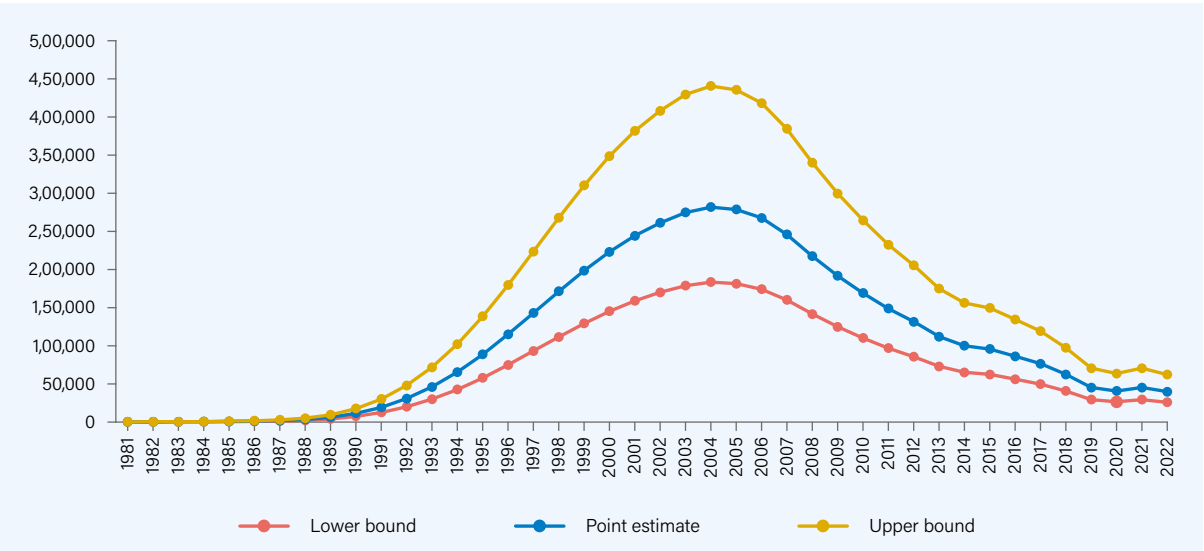
Figure 7: AIDS-Related Deaths per 1,00,000 Population in India (1981–2022)



Number of Annual AIDS-Related Deaths

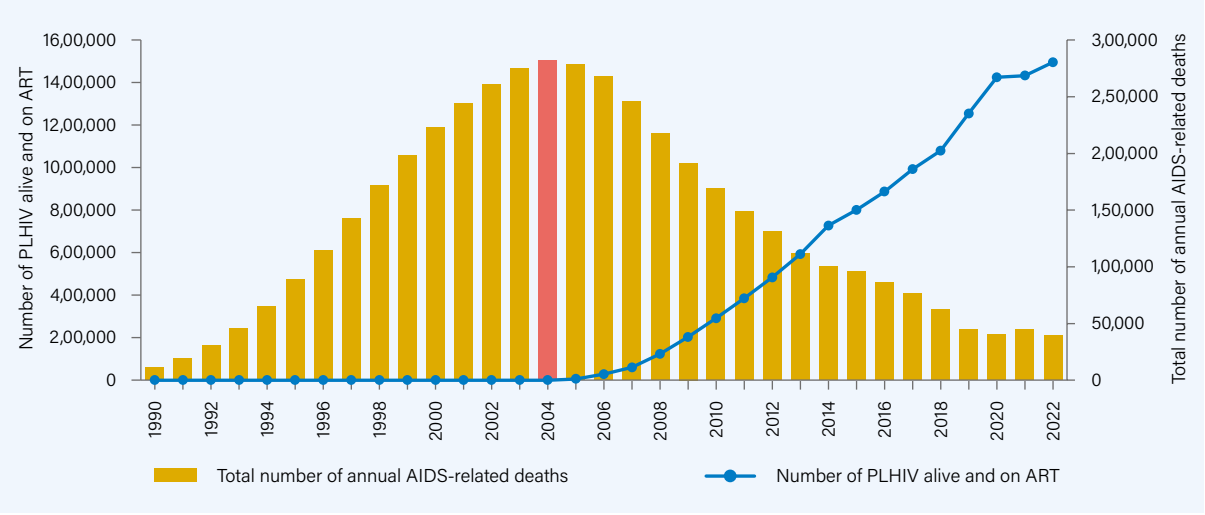
A key objective along the various phases of NACP under the 'Test and Treat' policy is the saturation of early HIV treatment among PLHIV given the positive effect of treatment on saving lives and preventing onward transmission of HIV. The total number of annual ARD in India was estimated at 39.63 thousand in 2022. Annual ARD among the adult female (15+ years) population was estimated at 11.38 thousand; and among young people (15–24 years) and children (0–14 years), it was estimated at 1.05 thousand and 2.18 thousand in 2022 respectively.

Figure 8: Number of Annual AIDS-Related Deaths in India (1981–2022)



With the availability of the free ART under the NACP, a rapid decline in ARDs has been observed in India, with around 86% decline from an estimate of 278.72 thousand deaths in 2005 to 39.63 thousand in 2022. During the last 12 years, around a 77% decline has been seen in the total ARDs. Among the adult population (15+ years), the rate of decline was at similar levels (76.26%), while among the adult female population, ARD was estimated to have reduced more rapidly by 81%. The decline was by nearly 81% and 69% from 2010 to 2022 among children and young people (15–24 years), respectively.

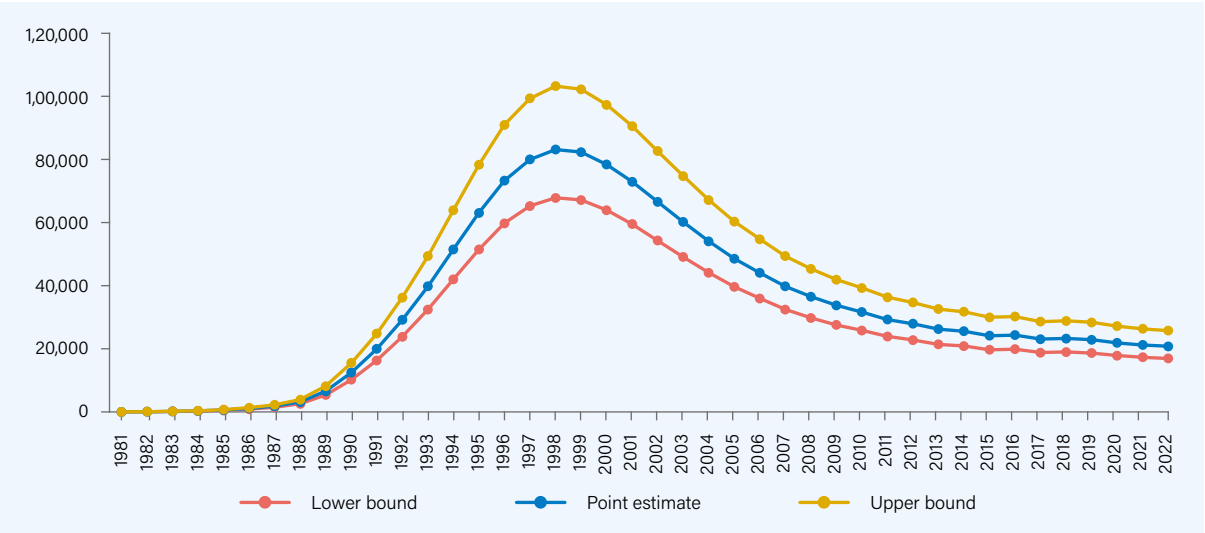
Figure 9: Number of Annual AIDS-Related Deaths and ART Uptake (1990–2022)



Need of Services for EVTH

Elimination of vertical transmission of HIV (EVTH) by 2025 is one of the commitments under the NACP. HIV testing services among pregnant women are being saturated under NACP and NHM towards this end along with various treatment services for EVTH. The estimated number of pregnant mothers needing EVTH services was 20.74 thousand in 2022, which has declined by around 34% from 31.61 thousand in 2010. One of the key impact indicators for measuring progress towards EVTH is the mother-to-child transmission (MTCT) rate. As per the 2022 HIV estimates, the final MTCT rate in India was estimated to be 19.91% in 2022.

Figure 10: Need of EVTH-Related Services in India (1981–2022)



Chapter 4
State/UT-Wise Estimates

This chapter provides the latest evidence on the state of the HIV epidemic at the sub-national level for key indicators: adult HIV prevalence (15–49 years), overall PLHIV population, HIV incidence, AIDS-related mortality, and need of services for EVTH at the State/UT levels.

Adult HIV Prevalence (15–49 years)

The 2022 round estimate of adult (15–49 years) HIV prevalence across States/UTs highlights the level and spread of the HIV epidemic across geographies within India. The highest adult HIV prevalence in 2022 is found to be in the NE States of Mizoram (2.34%), Nagaland (1.34%) and Manipur (0.94%). Other States with HIV prevalence higher than the national average of 0.20% are Andhra Pradesh (0.64%), Telangana (0.45%), Karnataka (0.43%) in the Southern region; Meghalaya (0.39%) in the NE region; and Delhi (0.32). The States of Punjab, Maharashtra and Goa have an adult HIV prevalence of 0.30% each, followed by Chandigarh (0.24%), Haryana (0.23%), Tripura (0.22%), Puducherry (0.21%) and Tamil Nadu (0.21%). The States/UTs of DNH&DD, Gujarat, Chhattisgarh, Bihar, Andaman and Nicobar Islands, Odisha, Arunachal Pradesh, Uttarakhand, Assam, Rajasthan, Uttar Pradesh and Himachal Pradesh have an adult HIV prevalence in the range of 0.10% to 0.20%. States with a prevalence of less than 0.10% are Madhya Pradesh, West Bengal, Jharkhand, Sikkim, Jammu & Kashmir and Ladakh, and Kerala.

The trend of adult HIV prevalence is not uniform across geographical regions. In Mizoram, Arunachal Pradesh, Meghalaya and Tripura, the estimated adult HIV prevalence has risen over previous years. The prevalence appears to be stable in Nagaland, Assam and Sikkim. The trend for adult HIV prevalence is declining in Andhra Pradesh, Chhattisgarh, Goa, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Tamil Nadu and Telangana since the epidemic's peak.

Figure 11: State/UT-Wide Adult HIV Prevalence (%) in India, 2022

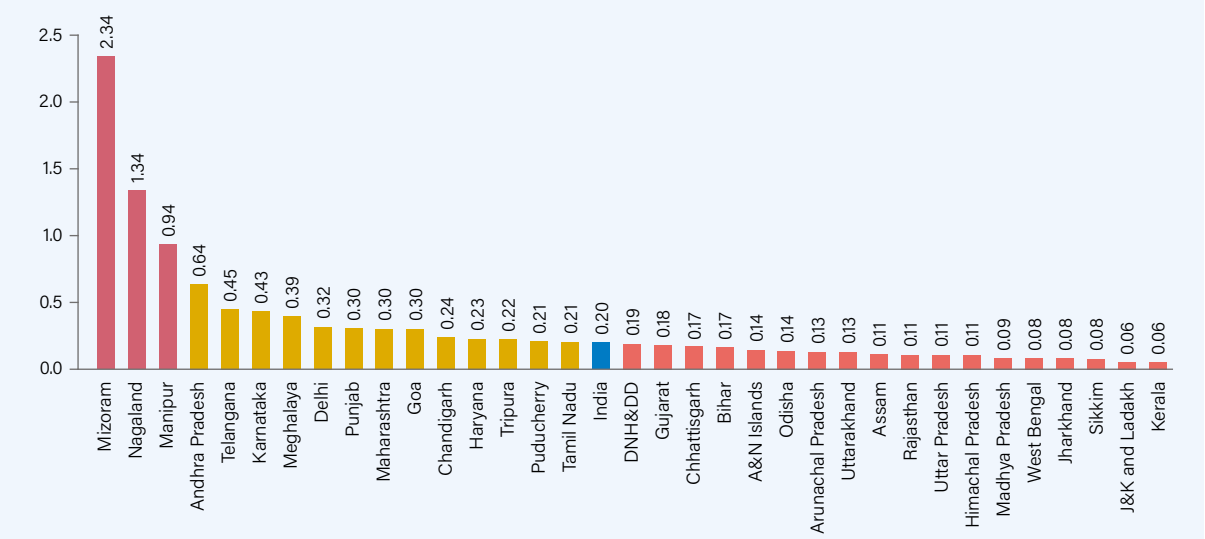
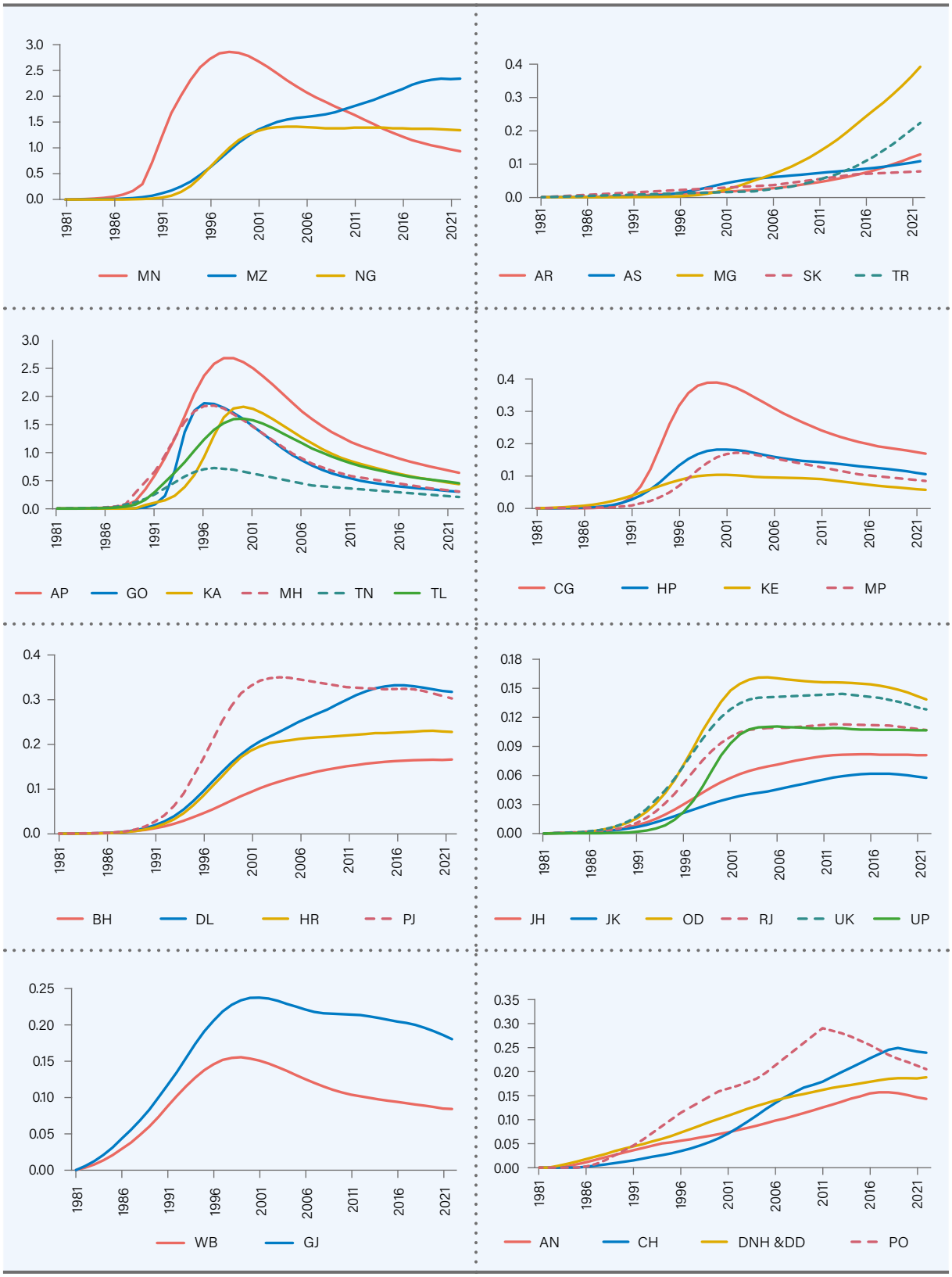


Figure 12: Trend in Adult HIV Prevalence (%) in States/UTs, 1981–2022



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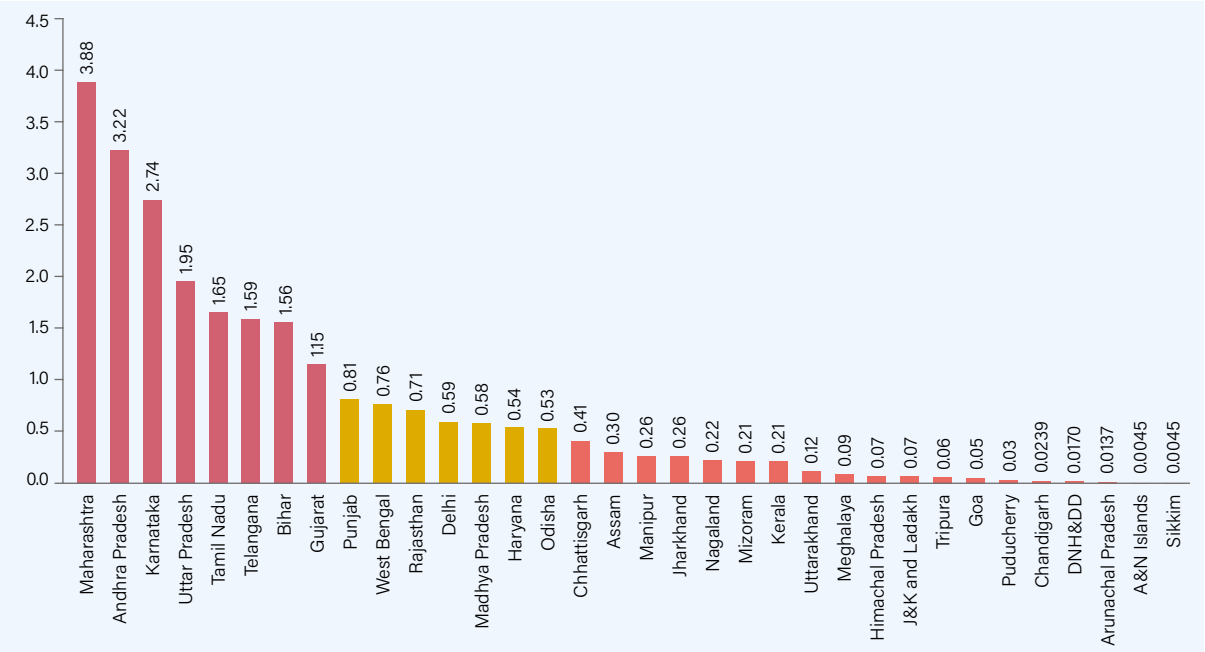
Number of People Living with HIV

The estimated number of PLHIV at the State/UT level provides critical information to assess the burden of the disease, the future need for treatment, and to plan testing programmes in specific geographical areas. States/UTs estimated to have the highest number of PLHIV at more than 1 lakh each are Maharashtra (3.88 lakhs), Andhra Pradesh (3.22 lakhs), Karnataka (2.74 lakhs), Uttar Pradesh (1.95 lakhs), Tamil Nadu (1.65 lakhs), Telangana (1.59 lakhs), Bihar (1.56 lakhs) and Gujarat (1.15 lakhs). These eight States account for around 72% of the total PLHIV burden. States with PLHIV estimates in the range of 0.50 lakh to 1 lakh are Punjab (0.81 lakh), West Bengal (0.76 lakh), Rajasthan (0.71 lakh), Delhi (0.59 lakh), Madhya Pradesh (0.58 lakh), Haryana (0.54 lakh) and Odisha (0.53 lakh) – these seven States account for around 18% of the total PLHIV burden. The remaining 19 States/UTs have PLHIV estimated at less than 0.50 lakh each and together account for 10% of the PLHIV burden.

The number of PLHIV among the adult population (15+ years) has been estimated at over 3 lakh infections in Maharashtra (3.79 lakhs) and Andhra Pradesh (3.16 lakhs). States of Karnataka (2.68 lakhs), Uttar Pradesh (1.89 lakhs), Tamil Nadu (1.61 lakhs), Telangana (1.56 lakhs), Bihar (1.48 lakhs) and Gujarat (1.12 lakhs) have adult PLHIV cases between 1 lakh and 3 lakhs. The estimated number of adult PLHIV between 50,000 and 1 lakh are in the States of Punjab, West Bengal, Rajasthan, Delhi, Madhya Pradesh, Haryana and Odisha. In the rest of the States, the estimated number is less than 50,000.

In the case of young people (15–24 years), the PLHIV burden has been estimated at over 15 thousand in Maharashtra (21.50 thousand), Andhra Pradesh (18.85 thousand), Karnataka (18.42 thousand), Uttar Pradesh (17.92 thousand) and Bihar (16.11 thousand). In Telangana, Tamil Nadu, Gujarat, Rajasthan and West Bengal, this estimate is in the range of 5 thousand to 10 thousand; while in Madhya Pradesh, Punjab, Haryana, Odisha, Chhattisgarh, Delhi, Assam, Manipur, Nagaland, Jharkhand, Mizoram and Meghalaya, PLHIV among this age group is between 1 thousand and 5 thousand. In the remaining States/UTs, it is less than 1 thousand.

Figure 13: State/UT-Wide Number of PLHIV (in Lakhs) in India, 2022



HIV burden of more than 5 thousand children is found in the States of Maharashtra (9.07 thousand), Bihar (8 thousand), Karnataka (5.97 thousand), Andhra Pradesh (5.87 thousand) and Uttar Pradesh ((5.74 thousand). States like Gujarat, Tamil Nadu, Telangana, Rajasthan, West Bengal, Punjab, Madhya Pradesh, Odisha, Chhattisgarh, Haryana, Manipur, Delhi, Jharkhand and Assam have between 1 thousand to 5 thousand children living with HIV.

Figure 14: State/UT-Wide Number of PLHIV (in Lakhs) in 15+ Population, 2022

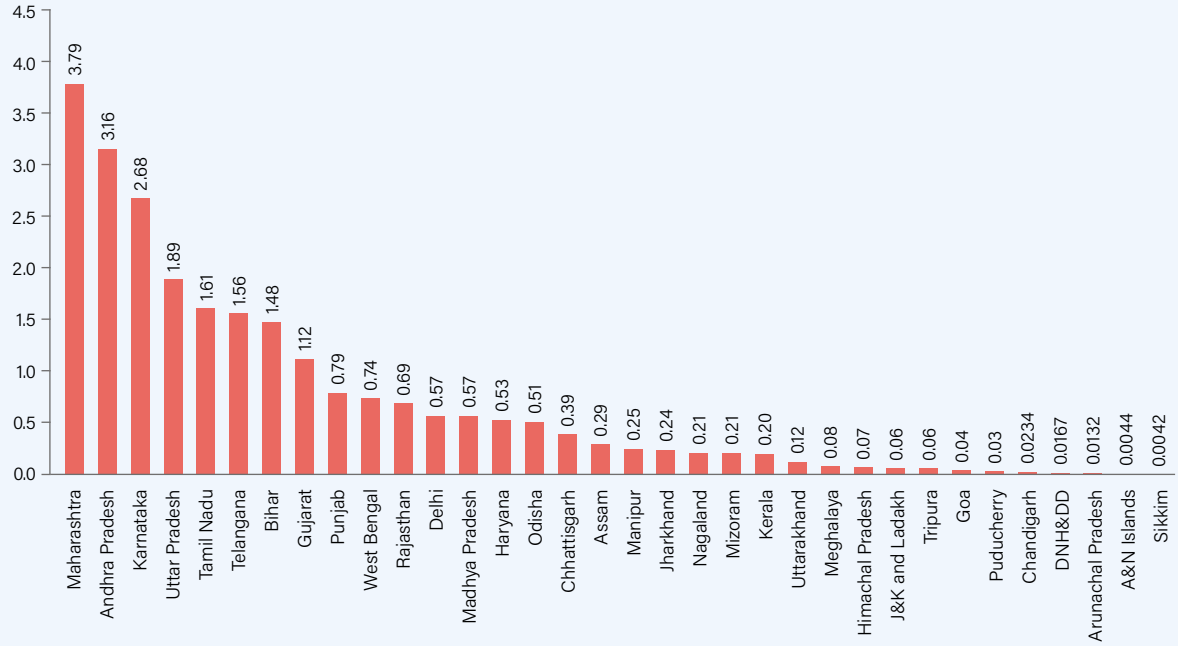
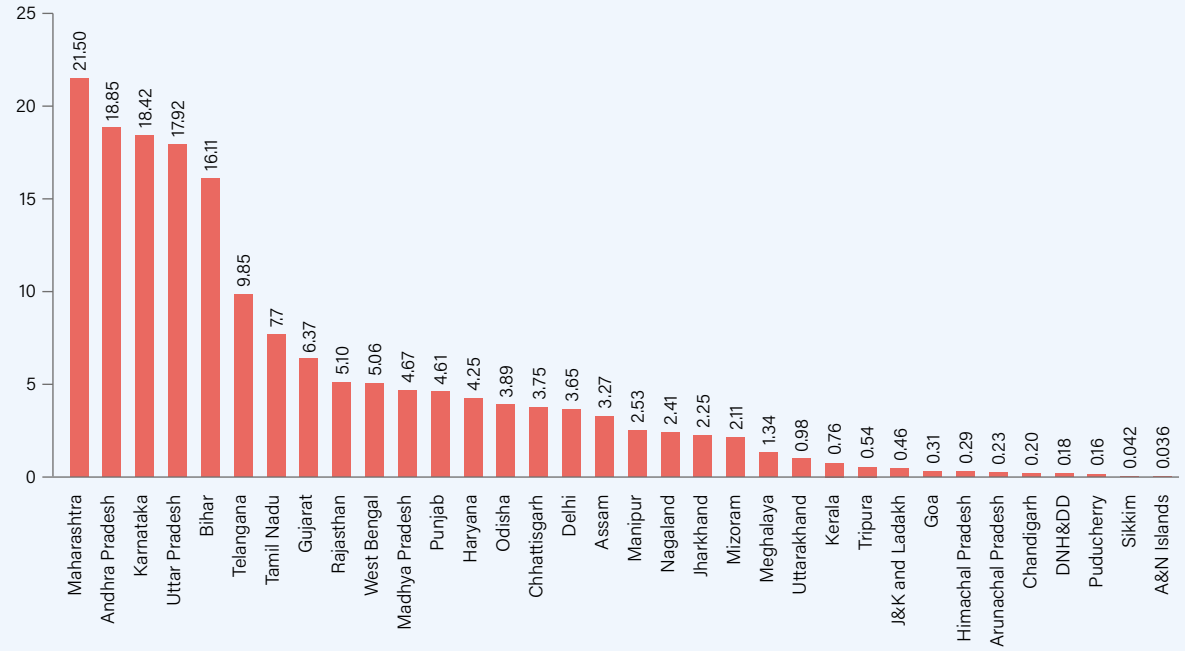


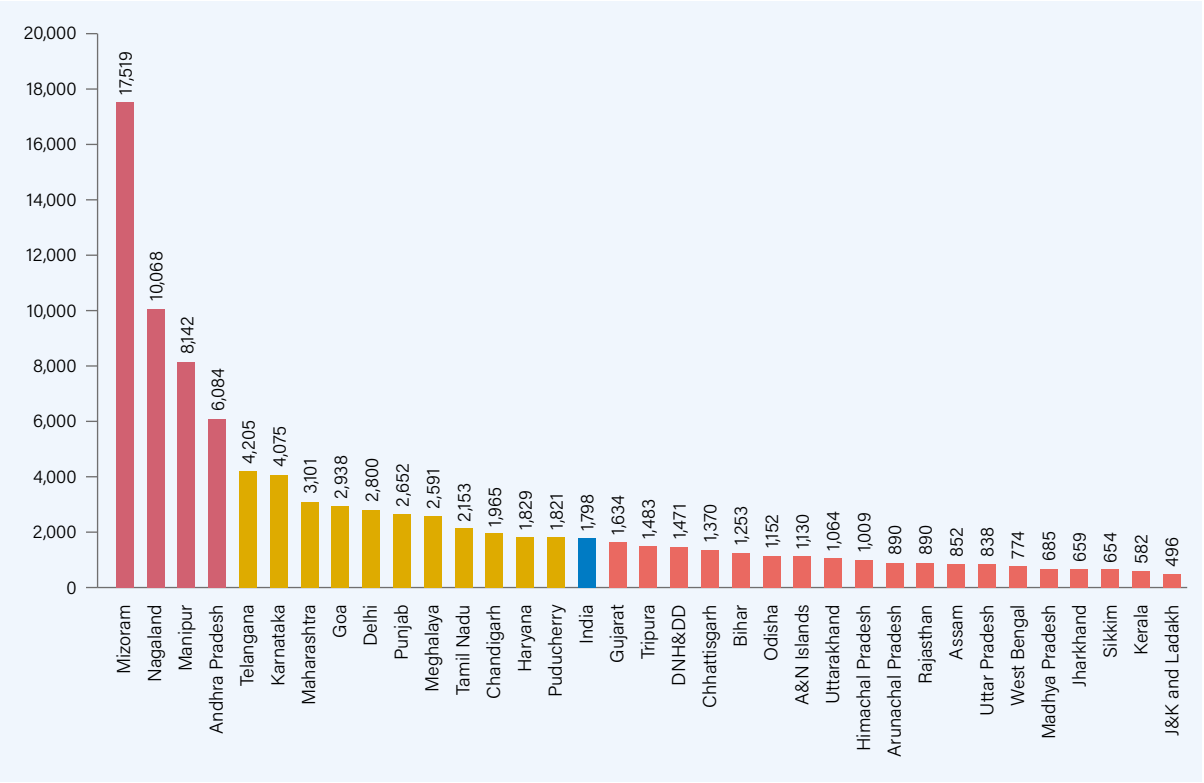
Figure 15: State/UT-Wide Number of PLHIV (in Thousands) in 15–24 Years Population, 2022



Number of People Living with HIV per Million Population (or per Ten Lakh Population)

PLHIV per million population explains the PLHIV burden relative to the total population size. States with the highest PLHIV number per million population are the three NE States of Mizoram, Nagaland and Manipur, along with Andhra Pradesh with more than 5 thousand PLHIV. This is followed by Telangana, Karnataka, Maharashtra, Goa, Delhi, Punjab, Meghalaya, Tamil Nadu, Chandigarh, Haryana and Puducherry, which have a higher PLHIV per million population than the national average of 1,798. Gujarat, Tripura, DNH&DD, Chhattisgarh, Bihar, Odisha, Andaman and Nicobar Islands, Uttarakhand and Himachal Pradesh are estimated to have between 1 thousand and 1.6 thousand PLHIV per million population; while the rest of the States/UTs have less than 1 thousand PLHIV per million population.

Figure 16: State/UT-Wide Number of PLHIV per Million Population (or per Ten Lakh Population), 2022



HIV Incidence per 1000 Uninfected Population

The sub-national HIV incidence rate provides insight into the epidemic trend and dynamics across geographical divisions within the country, informing the success and effect of the different preventive activities under NACP. Mizoram (0.86), Nagaland (0.48), Meghalaya (0.31), Manipur (0.27) and Tripura (0.18) are the top five States with the highest HIV incidence per 1000 uninfected population in 2022. Delhi (0.14), Arunachal Pradesh (0.11), Andhra Pradesh (0.10), Assam and DNH&DD (0.08) along with Bihar, Goa, Haryana and Punjab (each with 0.07 HIV incidence per 1000 uninfected population), had HIV incidence rate between 0.15 to 0.07 per 1000 uninfected population. The remaining States/UTs have an incidence of less than 0.07.

In terms of the overall trend, incidence per 1000 uninfected population is estimated to be declining in nearly all States/UTs, excluding a few States in the NE region and Delhi.

Figure 17: State/UT-Wide HIV Incidence per 1000 Uninfected Population in India, 2022

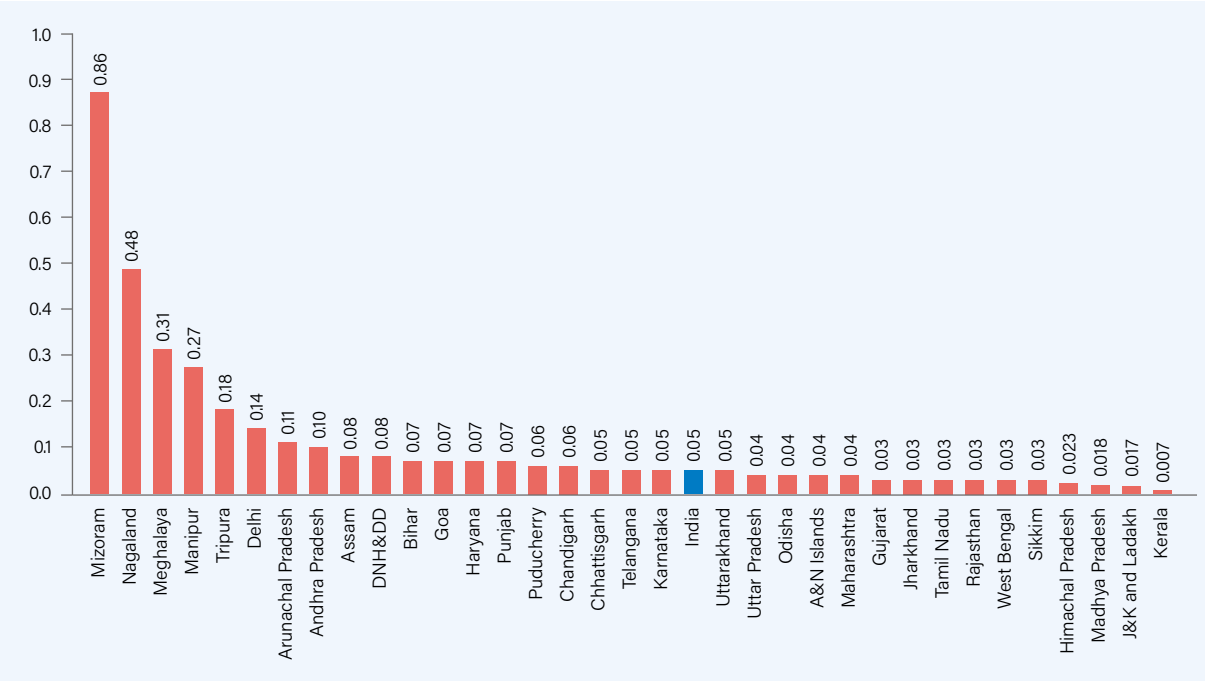
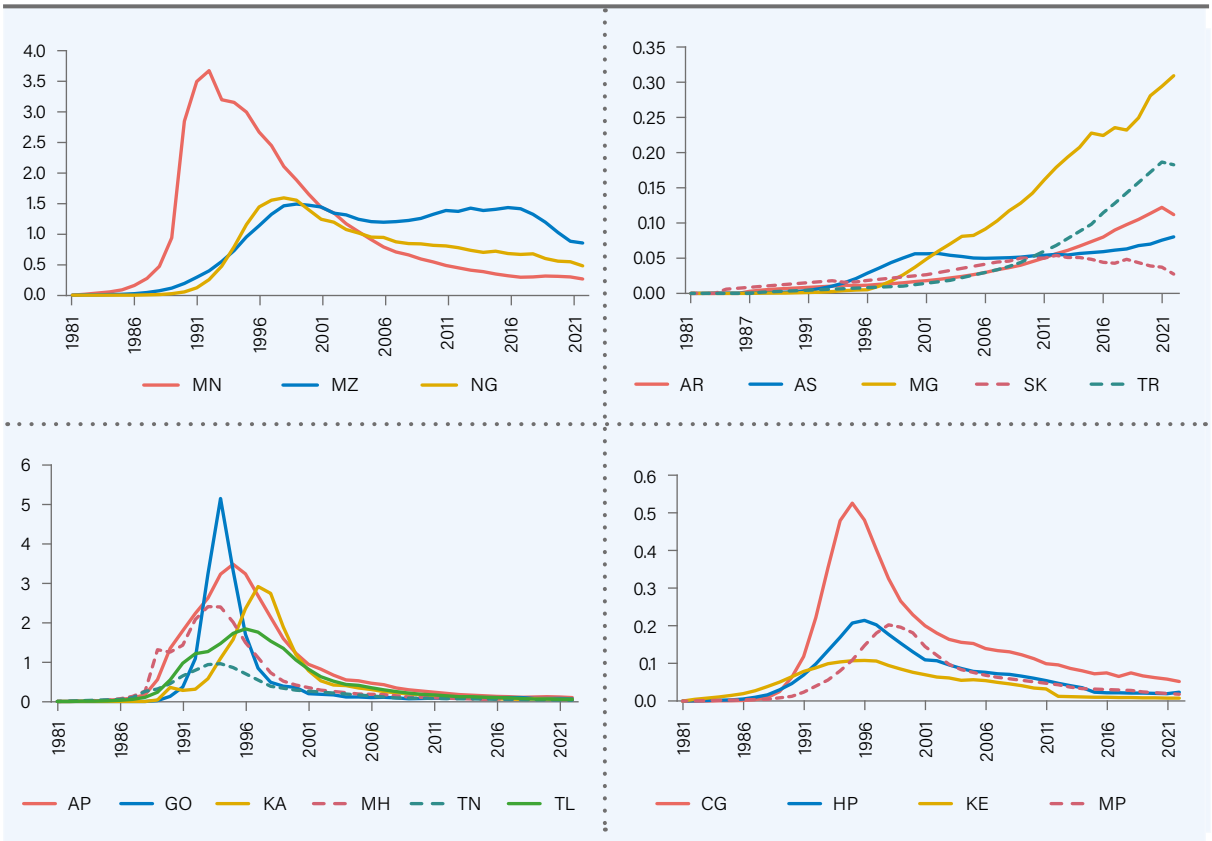


Figure 18: Trend of HIV Incidence per 1000 Uninfected Population in States/UTs, 1981–2022



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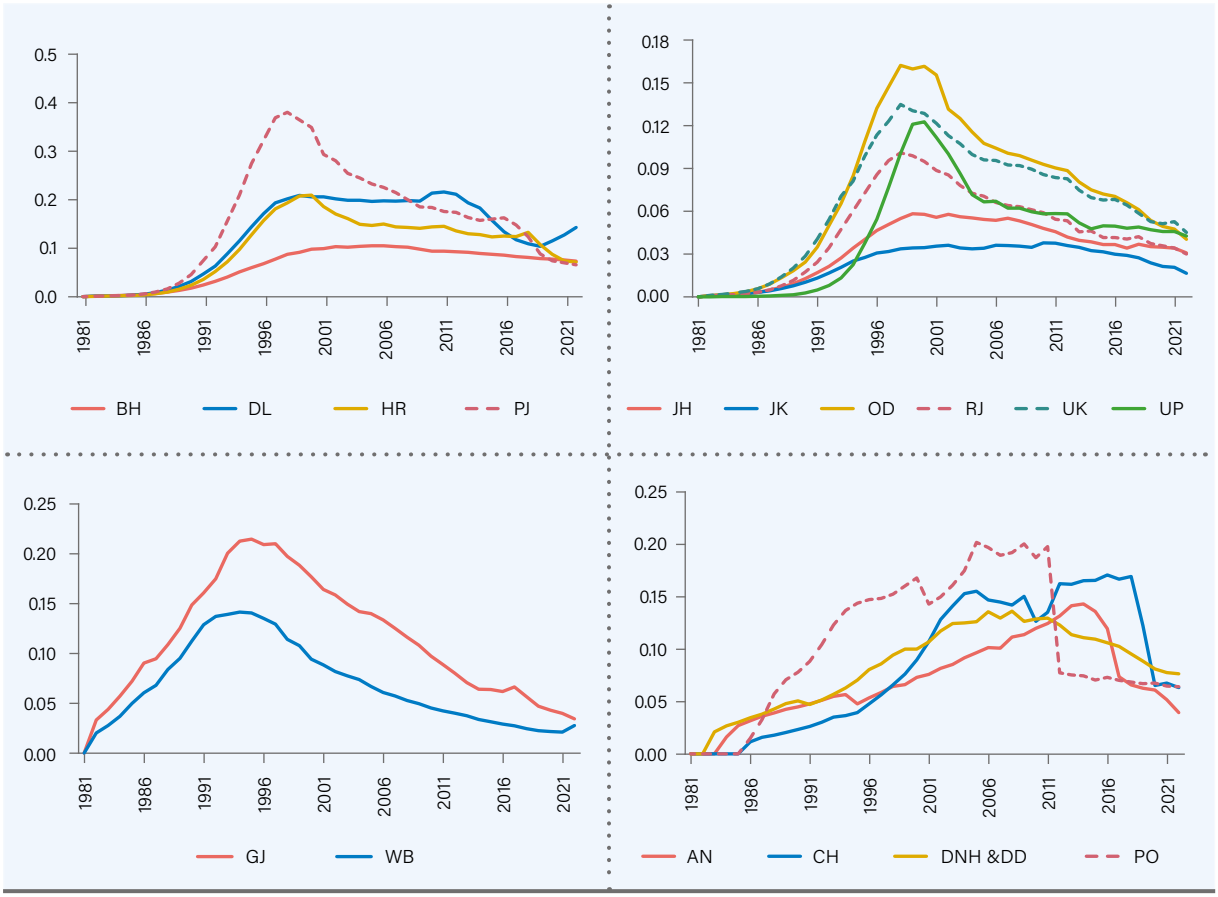


Number of Annual New HIV Infections

The top five States that are estimated to have more than 3 thousand ANIs in 2022 are Uttar Pradesh (9.88 thousand), Bihar (9.18 thousand), Andhra Pradesh (5.24 thousand), Maharashtra (4.46 thousand) and Karnataka (3.42 thousand), collectively representing 48% of the nation's total ANIs. This is followed by Delhi, Assam, West Bengal, Gujarat, Rajasthan, Tamil Nadu, Haryana, Punjab, Telangana, Odisha, Chhattisgarh, Madhya Pradesh, Jharkhand, Nagaland, Mizoram and Meghalaya, which are estimated to have between 1 thousand to 3 thousand ANIs per year, accounting for 47% of the overall HIV incidence burden in 2022. Other 13 States/UTs account for the rest 5% of total new HIV infections.

From 2010 to 2022, the number of new HIV infections per year is decreasing in nearly all States/UTs. Kerala has the fastest drop in new HIV infections from 2010 to 2022 at 77.3%, followed by Telangana (69.2%), Karnataka (65.8%), Andaman and Nicobar Islands (64.4%), Maharashtra (62.4%) and Punjab (60%). The decline in new HIV infections in the States/UTs of Andhra Pradesh (58.9%), Madhya Pradesh (58.3%), Gujarat (57.9%), Himachal Pradesh and Tamil Nadu (57.7% each), Puducherry (54.7%), Odisha (51.7%), Jammu & Kashmir and Ladakh (51.6%) and Chhattisgarh (44.8%) has been more than the national average of 42.2%. Tripura, Arunachal Pradesh, Meghalaya, Assam, DNH&DD and Goa have seen an increase in the number of ANIs in 2022 from the year 2010.

ANIs among the adult (15+ years) population in 2022 have been estimated at 9.47 thousand in Uttar Pradesh, 8.25 thousand in Bihar, 4.96 thousand in Andhra Pradesh, 4.10 thousand in Maharashtra, and 3.21 thousand in Karnataka. The States of Delhi, Assam, West Bengal, Rajasthan, Gujarat, Tamil Nadu, Haryana, Punjab, Telangana, Odisha, Chhattisgarh, Madhya Pradesh and Jharkhand have between

1 thousand to 3 thousand annual new infections among 15+ population. The rest of the States and UTs have new infections less than 1 thousand. In the case of young adult (15–24 years) population, the ANI in 2022 has been estimated at 2.76 thousand in Uttar Pradesh, 2.61 thousand in Bihar, and 1.04 thousand in Andhra Pradesh. The rest of the States and UTs have ANIs of less than 1 thousand. Bihar has 932 ANIs among children (0–14 years).

Figure 19: State/UT-Wide Number of Annual New HIV Infections (in Thousands) in India, 2022

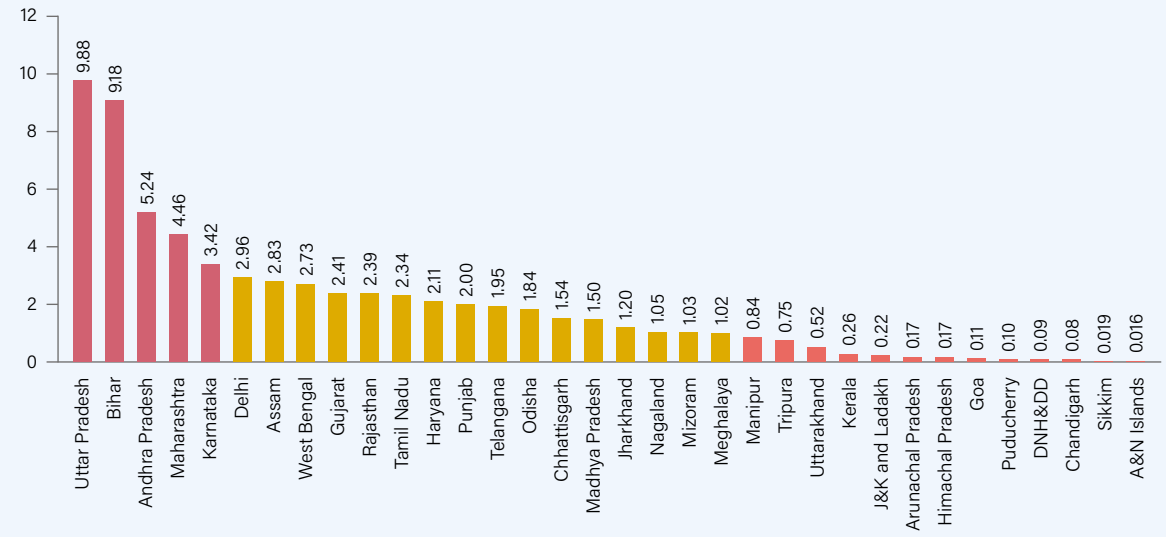


Figure 20: Change (%) in Annual New HIV Infections from 2010 to 2022 by States/UTs

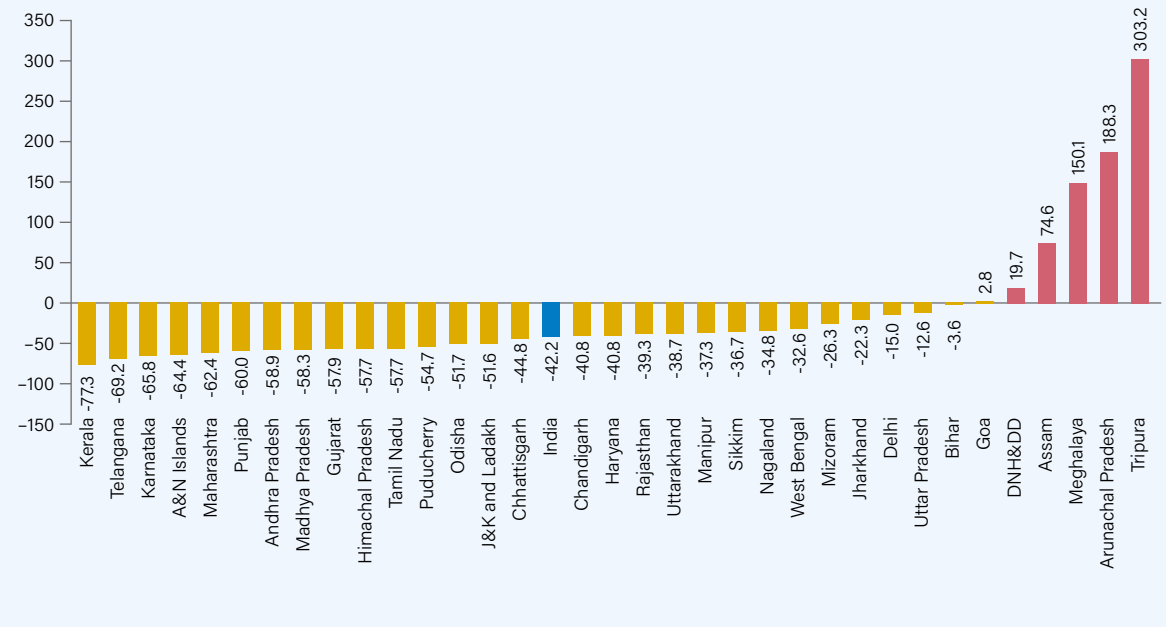


Figure 21: State/UT-Wide Number of Annual New HIV Infections (in Thousands) in 15+ Population, 2022

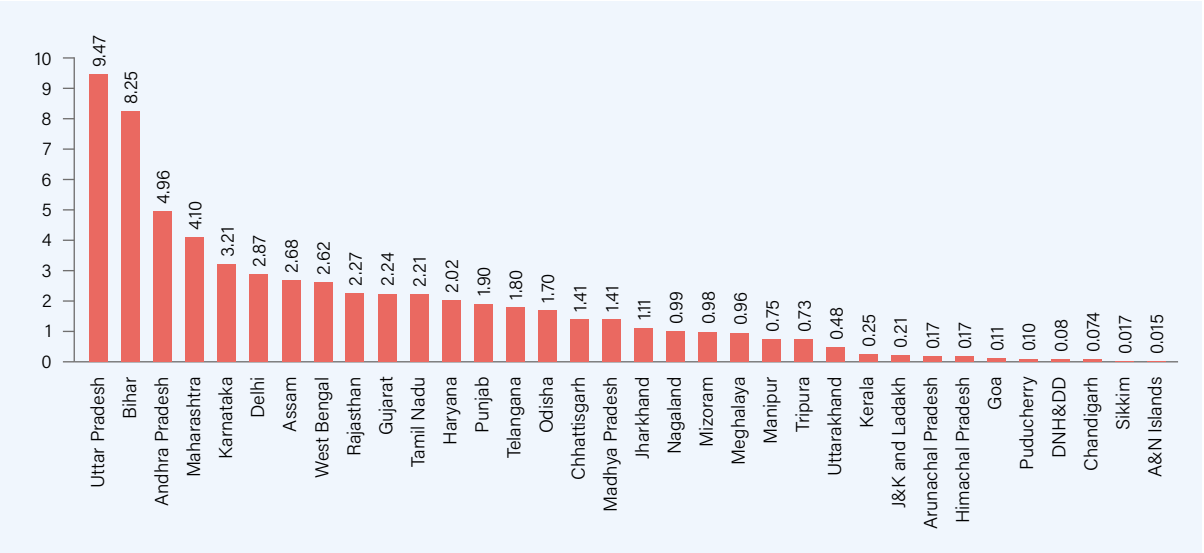
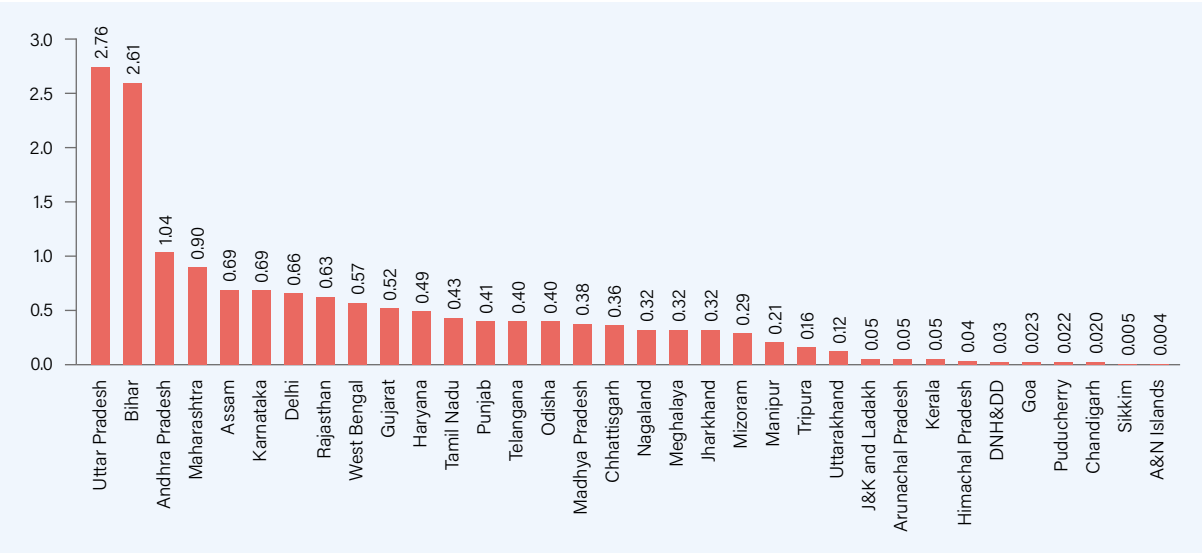


Figure 22: State/UT-Wide Number of Annual New HIV Infections (in Thousands) in 15–24 years Population, 2022



HIV Incidence (15–49 years) among HRG Population

The estimated HIV incidence rates for the HRG population illustrate a diverse picture across States/UTs. In case of IDU population, HIV incidence is estimated at 23% for Rajasthan, 11% for Uttar Pradesh, 9% for Bihar, 6% for Delhi, along with Haryana and Mizoram at 4% each. HIV incidence among FSW population is estimated at 4% for Meghalaya and 0.91% for Mizoram.

Figure 23: HIV Incidence Rate among FSW Population (15–49 years) in India, 2022

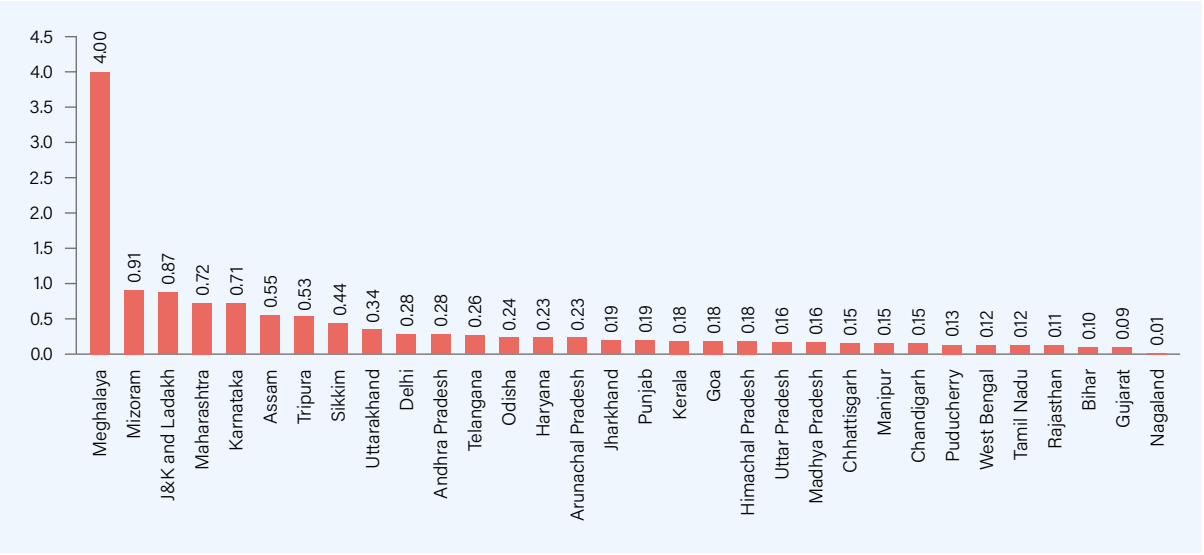


Figure 24: HIV Incidence Rate among IDU Population (15–49 years) in India, 2022

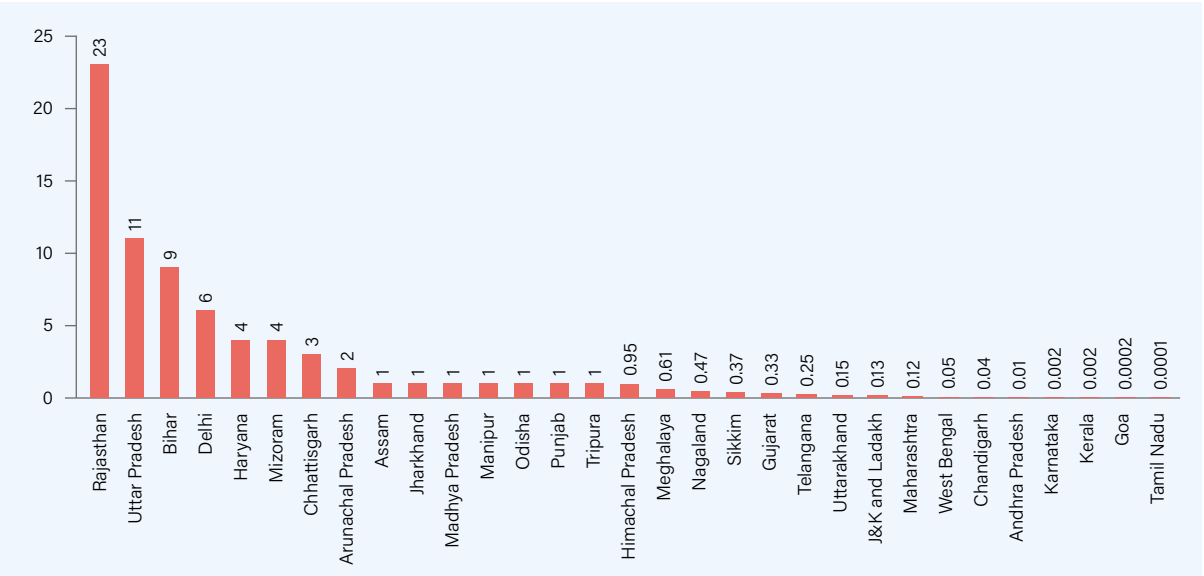
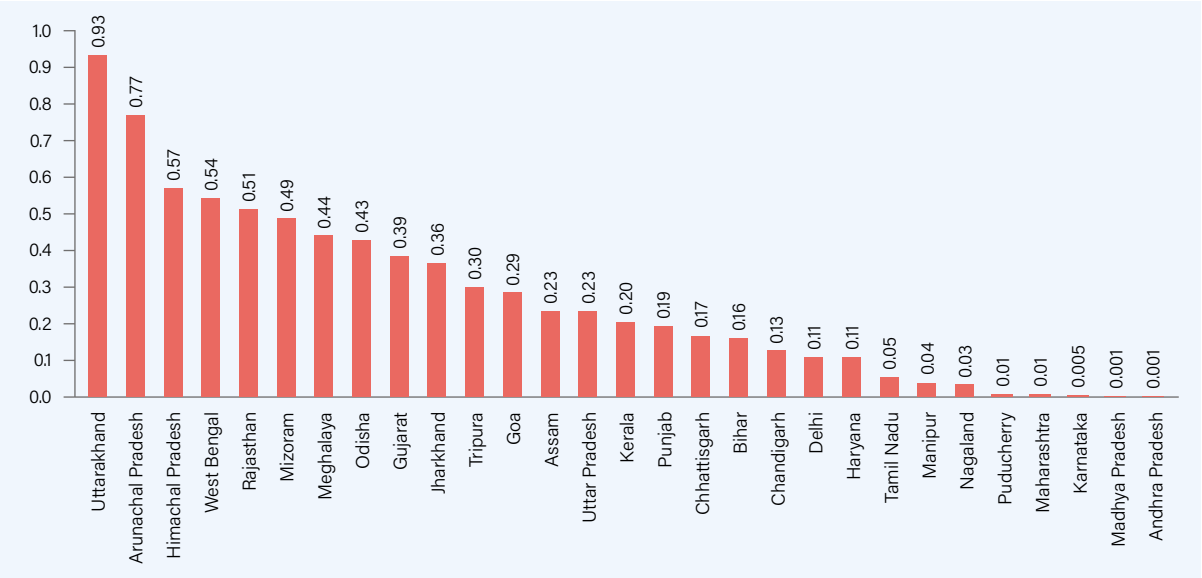


Figure 25: HIV Incidence Rate among MSM Population (15–49 years) in India, 2022



AIDS-Related Deaths per 1,00,000 Population

The primary mission of NACP is to reduce AIDS-related mortality across the country by increasing the coverage of PLHIV who get lifesaving ART. The HIV estimates for 2022 reflect the ongoing drop in AIDS-related mortality across States/UTs after the implementation of free ART under NACP in 2003–2004. The pace of reduction, however, varies by State/UT in relation to ART coverage among PLHIV. Manipur has the highest mortality rate per 1,00,000 population at 18.24, followed by Andhra Pradesh (12.70), Nagaland (12.07), Karnataka (9.82) and Mizoram (9.24). The ARD rate in Telangana, Delhi, Maharashtra, Puducherry, Chhattisgarh, Goa, Odisha and Andaman and Nicobar Islands is higher than the national average of 2.90. In terms of the overall trend, ARD per 1,00,000 population is estimated to be declining in nearly all States/UTs, except for a slight increase in Chandigarh, Delhi and Himachal Pradesh.

Figure 26: State/UT-Wide AIDS-Related Deaths per 1,00,000 Population in India, 2022

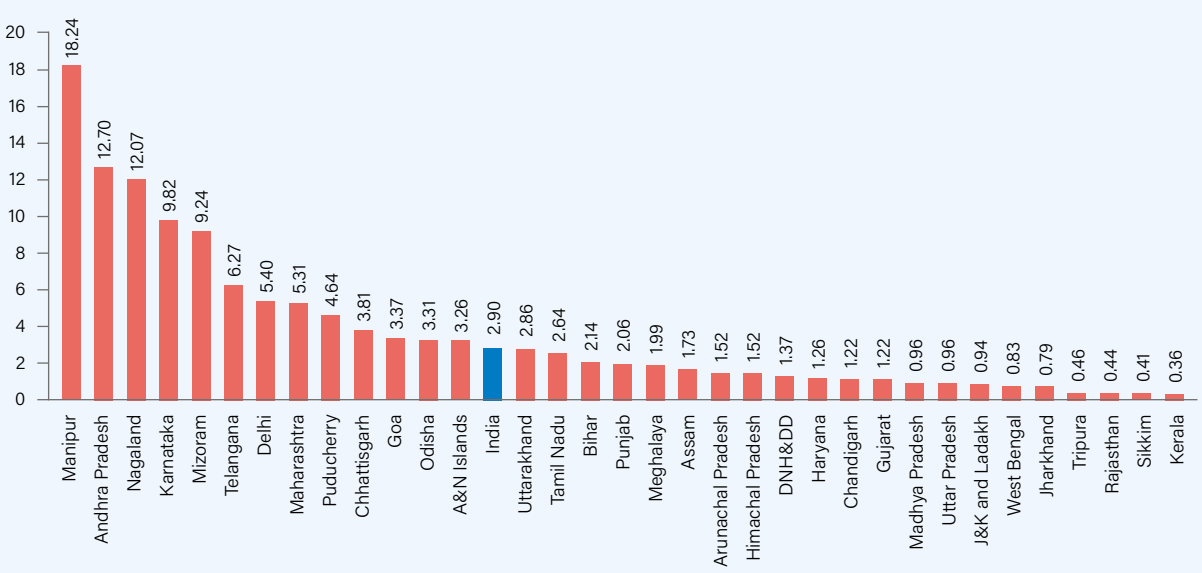
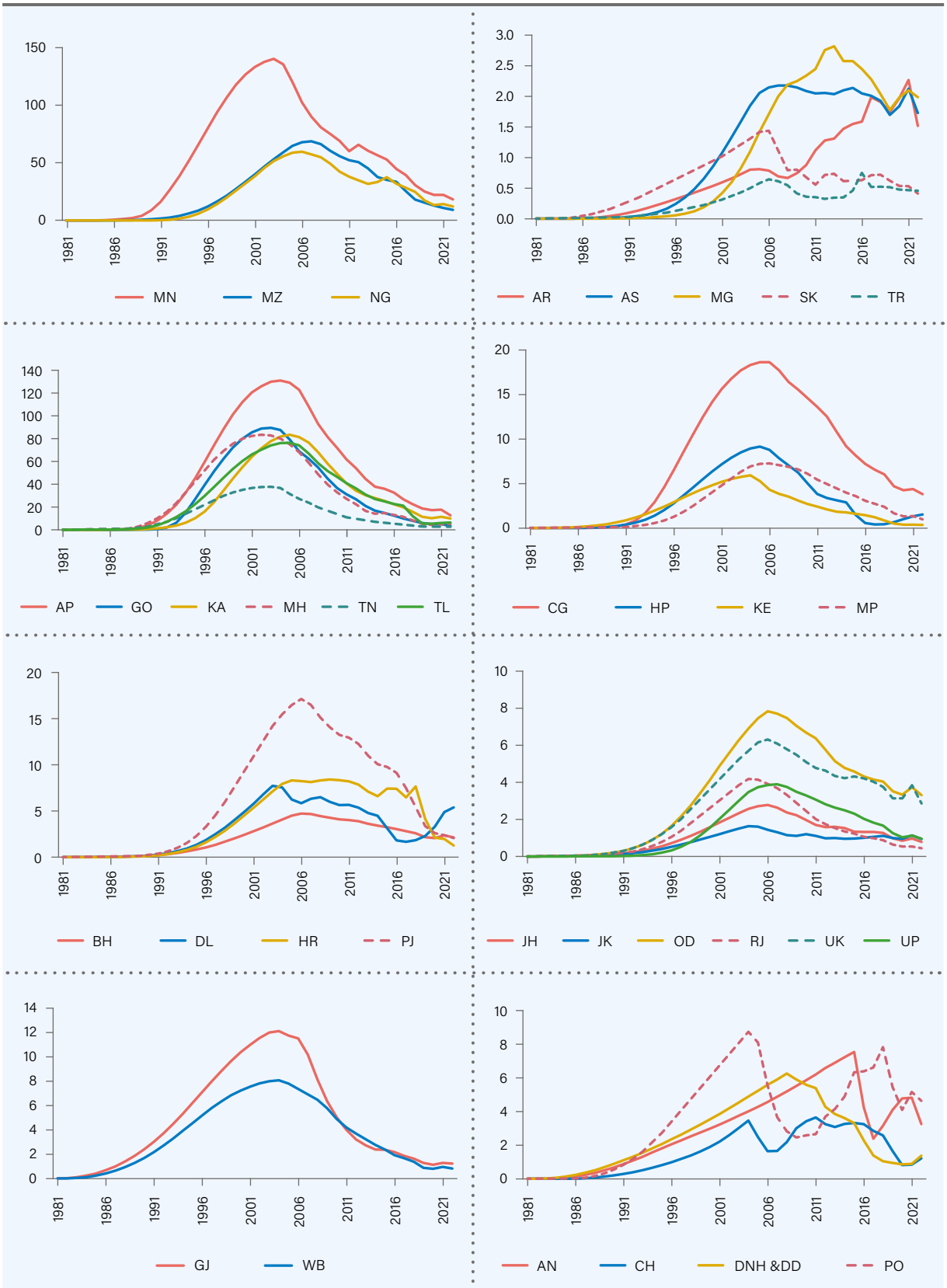


Figure 27: Trends in AIDS-Related Deaths per 1,00,000 Population in States/UTs, 1981–2022



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Number of Annual AIDS-Related Deaths

Estimates of the number of annual ARDs each year give insight into the success of the treatment programme and identify geographic regions where services must be consistently reinforced. States with the highest number of yearly AIDS-related fatalities in 2022 are Andhra Pradesh (6.71 thousand), Maharashtra (6.63 thousand) and Karnataka (6.58 thousand), which account for half of the total number of annual ARDs. This is followed by the States of Bihar, Telangana, Uttar Pradesh, Tamil Nadu, Odisha, Chhattisgarh and Delhi, which have between 1 thousand and 3 thousand ARDs that account for 33% of total ARDs. The remaining 24 States/UTs account for approximately 17% of all cases.

Annual AIDS-related fatalities among adults (15+ years) in 2022 are estimated to be 6.54 thousand in Andhra Pradesh, 6.52 thousand in Maharashtra, and 6.48 thousand in Karnataka. This is followed by Telangana, Bihar, Uttar Pradesh, Tamil Nadu, Odisha, Delhi and Chhattisgarh, where annual AIDS-related mortality is estimated to be between 1 thousand and 3 thousand. The number is fewer than a thousand in the remaining States/UTs. Bihar has the highest number of AIDS mortality among children with 535 deaths. Other States with high mortality rates among children include Andhra Pradesh, Gujarat, Uttar Pradesh, Maharashtra and Karnataka.

Figure 28: State/UT-Wide Annual AIDS-Related Deaths (in Thousands) in India, 2022

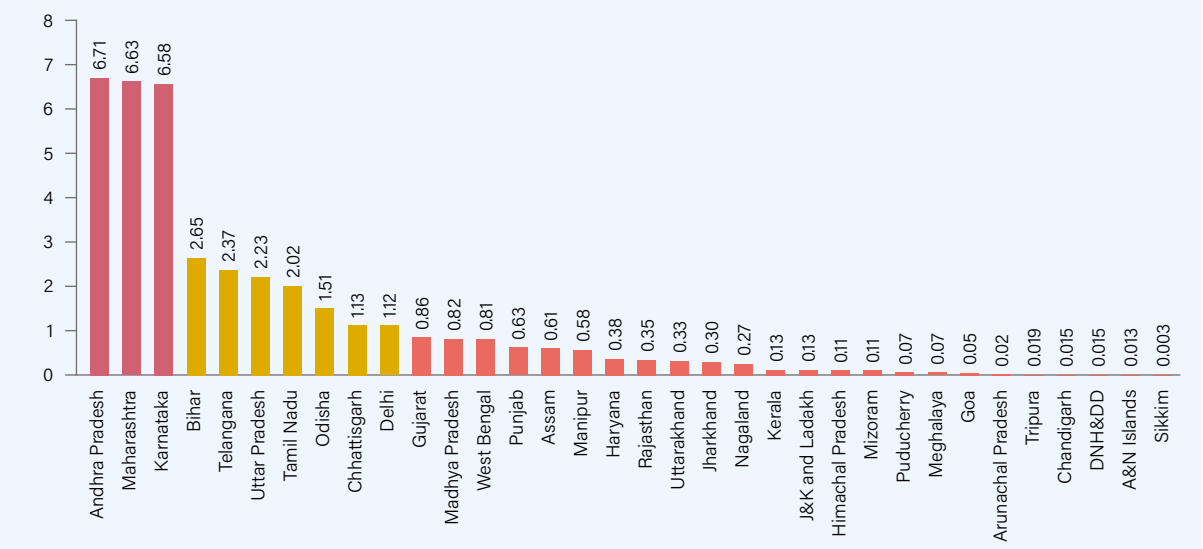
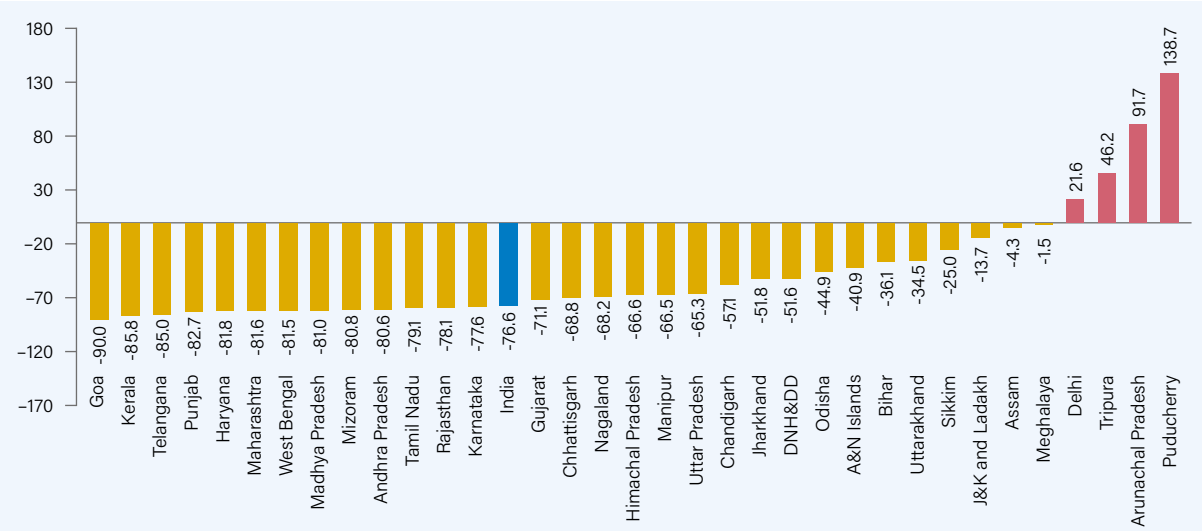


Figure 29: Change (%) in Annual AIDS-Related Deaths from 2010 to 2022 by State/UT



In terms of the trend, ARDs have continually been declining on an annual basis in nearly all States/UTs. A decline higher than the national average of 76.6% from 2010 to 2022 has been estimated in Goa, Kerala, Telangana, Punjab, Haryana, Maharashtra, West Bengal, Madhya Pradesh, Mizoram, Andhra Pradesh, Tamil Nadu, Rajasthan and Karnataka. An increasing trend has been estimated in Puducherry, Arunachal Pradesh, Tripura and Delhi.

Figure 30: State/UT-Wide Annual AIDS-Related Deaths (in Thousands) 15+ Population, 2022

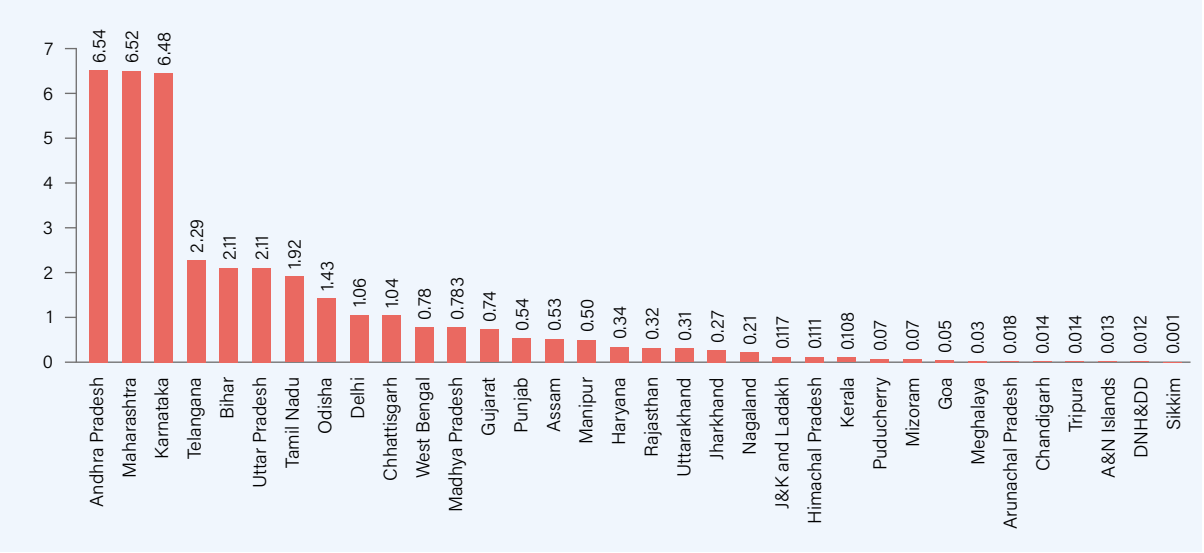
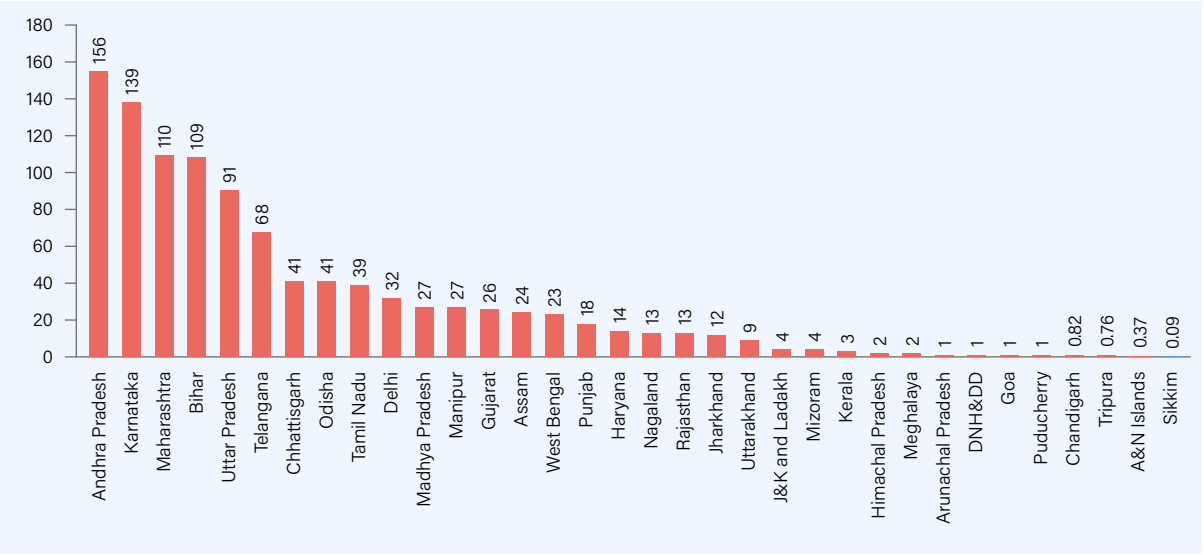


Figure 31: State/UT-Wide Annual AIDS-Related Deaths in 15–24 years Population, 2022

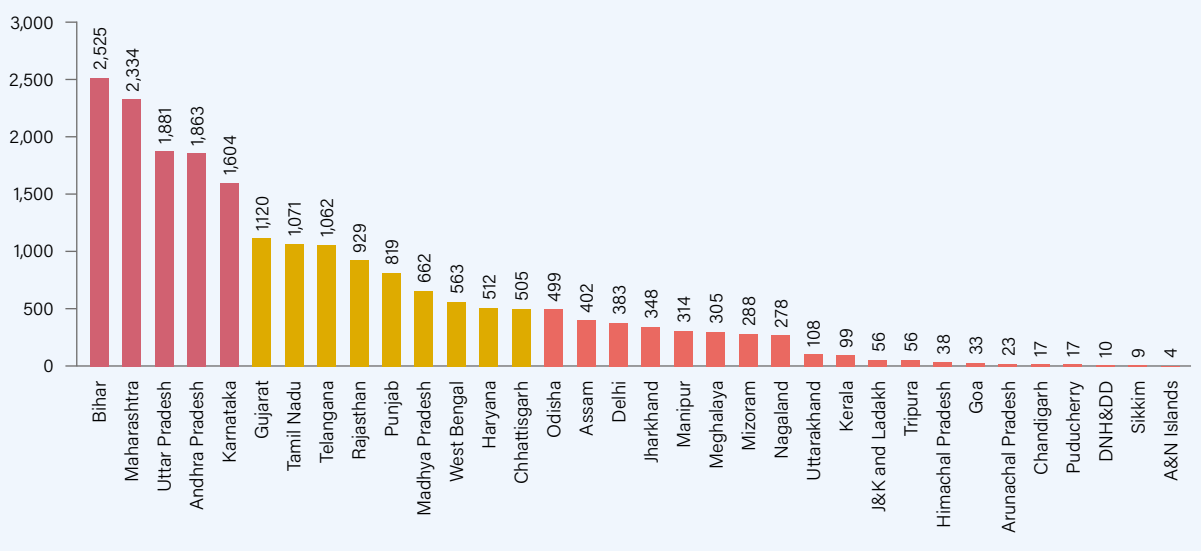


Need of Services for EVTH

India is committed to achieving the target of elimination of vertical transmission of HIV by 2025 and is taking concerted efforts to increase HIV testing and expand coverage of services for elimination of vertical transmission of HIV (EVTH) among those who are in need. The estimated need of services for EVTH is a key indicator to inform treatment coverage and highlight areas needing focus across the country.

States accounting for the highest need of services for EVTH, between 1.5 thousand and 3 thousand, are Bihar (2.53 thousand), Maharashtra (2.33 thousand), Uttar Pradesh (1.88 thousand), Andhra Pradesh (1.86 thousand) and Karnataka (1.60 thousand). These five States together account for 49% of the EVTH services need in the country. This is followed by the States of Gujarat, Tamil Nadu, Telangana, Rajasthan, Punjab, Madhya Pradesh, West Bengal, Haryana and Chhattisgarh, where the need of services for EVTH is estimated to be between 500 and 1.5 thousand, accounting for 35% of the total EVTH need. The rest of the 20 States/UTs account for 16% of the total EVTH need in the country in 2022.

Figure 32: State/UT-Wide Need of Services for EVTH in India, 2022



Chapter 5
Discussion

The goal of NACP-V is to achieve an 80% reduction in annual new HIV infections and AIDS-related deaths from 2010 to 2025–2026. India has also adopted the United Nations Sustainable Developmental Goal (SDGs) to end the Global AIDS epidemic by 2030.

The process of HIV estimation is implemented by NACO and ICMR-NIMS through a Sub-Group specialized in HIV burden estimation. This effort is conducted under the supervision of the TWG and TRG to provide critical evidence concerning the state of the HIV epidemic. This information is instrumental in planning and executing the strategies outlined in NACP-V. The latest 2022 round of HIV estimates has been generated using the globally recommended modelling tool Spectrum version 6.24, incorporating the latest demographic, epidemiological and programme data.

The adult HIV prevalence is estimated to be 0.20% in 2022 in India. It has declined since 2010, which was 0.32%. The top three States with the highest adult HIV prevalence are Mizoram (2.34%), Nagaland (1.34%) and Manipur (0.94%). The number of PLHIV was estimated to be around 24.67 lakhs in 2022. States/UTs estimated to have the highest number of PLHIV at more than 1 lakh each are in Maharashtra, Andhra Pradesh, Karnataka, Uttar Pradesh, Tamil Nadu, Telangana, Bihar and Gujarat, together accounting for around 72% of the PLHIV burden. The trend of adult HIV prevalence in States/UTs is diverse. In Mizoram, the estimated adult HIV prevalence has risen sharply over previous years, while Arunachal Pradesh, Meghalaya and Tripura have lower levels but indicate an upward trend. In contrast, the prevalence appears stable in Nagaland, Assam and Sikkim. Meanwhile, the trend for adult HIV prevalence has been declining in West Bengal, Chhattisgarh, Madhya Pradesh, Maharashtra, Goa, Andhra Pradesh, Telangana, Tamil Nadu and Kerala since the epidemic's peak.

The HIV incidence per 1000 uninfected population is estimated to have reduced from 0.10 in 2010 to 0.05 in 2022. States with the highest incidence per 1000 uninfected population include Mizoram, Nagaland, Meghalaya, Manipur and Tripura. Between 2010–2022, the total decline in annual HIV infection is estimated to be at 42%. The top five States which are estimated to have the highest number of ANIs in 2022, each exceeding 3 thousand cases, are Uttar Pradesh, Bihar, Andhra Pradesh, Maharashtra and Karnataka. Together, these States account for 48% of the total new HIV infection in the country. ANI is declining in nearly all States/UTs from 2010 to 2022. However, some States/UTs have shown an increase in the annual new cases of HIV, including Tripura, Arunachal Pradesh, Meghalaya, Assam, DNH&DD and Goa. It is crucial to scale up prevention interventions under NACP-V to reduce the annual new infections effectively.

Total ARDs have declined by 76.6% from 2010 to 2022 as a result of the free ART programme under NACP. The 'Test and Treat' policy has been adopted to save more lives, contributing to the continued decline in ARDs annually across most States/UTs. However, an increasing trend has been estimated in Puducherry, Arunachal Pradesh, Tripura and Delhi from 2010 to 2022.

India is committed to achieving the target of EVTH by 2025. Thus, significant efforts are being taken to increase HIV testing among pregnant women and mothers and expand the coverage of EVTH-related services to ensure that no child is born with HIV infection. The estimated number of HIV-positive pregnant women/ mothers needing EVTH-related services was 20.74 thousand in 2022, which has declined by 34% since 2010. States with the highest need of services for EVTH, between 1.5 thousand and 3 thousand, include Bihar, Maharashtra, Uttar Pradesh, Andhra Pradesh and Karnataka, collectively accounting for 49% of the country's need. The MTCT rate is one of the key impact indicators for measuring progress towards EVTH, which is estimated at 19.91% in 2022.

Annexures

Annexure 1: Composition of NACO's Sub-Group (HIV Burden Estimation)

T/11020/1/2021/Surveillance & Epidemiology
Government of India
Ministry of Health and Family Welfare
National AIDS Control Organization

6th & 9th Floor, Chanderlok Building,
36, Janpath, New Delhi, 110001
Dated 15.12.2021

OFFICE ORDER

Subject: Sub-Group (HIV Burden Estimation) of NACO's Technical Working Group (Surveillance & Epidemiology) under National AIDS Control Programme

1. NACO's Surveillance & Epidemiology (S&E) functions have evolved significantly into an ambitious framework for Integrated and Enhanced Surveillance & Epidemiology (IESE) of HIV, STIs and related co-morbidities under the National AIDS Control Programme to anchor the national AIDS response towards the attainment of 2030 SDG 3.3 of ending AIDS as a public health threat. The IESE framework is guided through a robust institutional mechanism under the guidance of NACO's Technical Resource Group (TRG) and Technical Working Group (TWG) (Surveillance and Epidemiology).
2. Consequent to framing up of IESE framework, it has been decided to constitute Sub-Group (HIV Burden Estimation) of NACO's Technical Working Group (Surveillance & Epidemiology) under National AIDS Control Programme. The composition and ToR of the Sub-Group on HIV Burden Estimation are as below:

Particulars	Details
Chair	Dr Arvind Pandey, National Chair (Medical Statistics), ICMR and Former Director, ICMR-NIMS, New Delhi
Co-Chairs	1. Director, ICMR-NIMS, New Delhi 2. HoD, Strategic Information (S&E), NACO
Member Secretary	Senior-most consultant NACO's Strategic Information (S&E) division
Ex-officio institutional member	1. All focal persons of National and Regional institutes (Surveillance & Epidemiology) under NACP 2. All DDs/ADGs, NACO
Technical Experts	1. Dr Shashi Kant, Professor and Head, Centre for Community Medicine, AIIMS, New Delhi 2. Dr S K Singh, Professor, Department of Mathematical Demography & Statistics, IIPS, Mumbai 3. Dr D K Shukla, Former Director I/C, National Institute of Medical Statistics, New Delhi 4. Dr Bilali Camara, Medical Epidemiologist 5. Mr Taoufik Bakkali, HIV Disease Burden Expert
Special Invitees	1. Subject Experts/ UNAIDS/WHO/ Community Experts/ State AIDS Control Societies/Other Partner Agencies (As per the approval of the Chair): Up to 6 per meeting
ToR	1. The Sub-Group of TWG will meet at least once a year. 2. The Sub-Group will a. Review and recommend the method, results, and policy implications

Particulars	Details
	of the HIV burden estimation activities under NACO's IESE framework, b. Any other work on HIV burden estimations as per the approval of competent authority. 3. The quorum for the meeting of the Sub-Group shall be complete when a. The meeting is presided by either the Chair or one of the Co-Chairs as per approval of the Chair, and b. The meeting is attended by at-least one third of its total nominated member (Ex-officio institutional member/ Technical Experts). 4. The expenditure for the functioning of the Sub-Group will be regulated in accordance with the instructions issued from time to time. The coordination of the functioning will be done by the senior most consultant (S&E) in NACO. 5. The recommendations of the sub-group will be presented/circulated to the NACO's TWG Surveillance and Epidemiology for their review and recommendation for the next steps. 6. NACO will duly acknowledge the Sub-Group of TWG in all publications (operational manuals, technical/policy briefs, reports, scientific papers) emanating from the activities carried out under the guidance of the Sub-Group concerned. 7. The members/special invitees may acquire knowledge and information during Sub-Group meetings which is not available within the public domain otherwise. All such knowledge and information which may be acquired being member of Sub-Group shall be regarded as strictly confidential and shall not be directly and indirectly disclosed to any person until and unless the knowledge appears in the public domain through NACO's authorized publications/dissemination/releases. 8. The Sub-Group of TWG will be re-constituted periodically as per the approval of the competent authority.

This issues with the approval of the Additional Secretary & Director General (NACO), Government of India

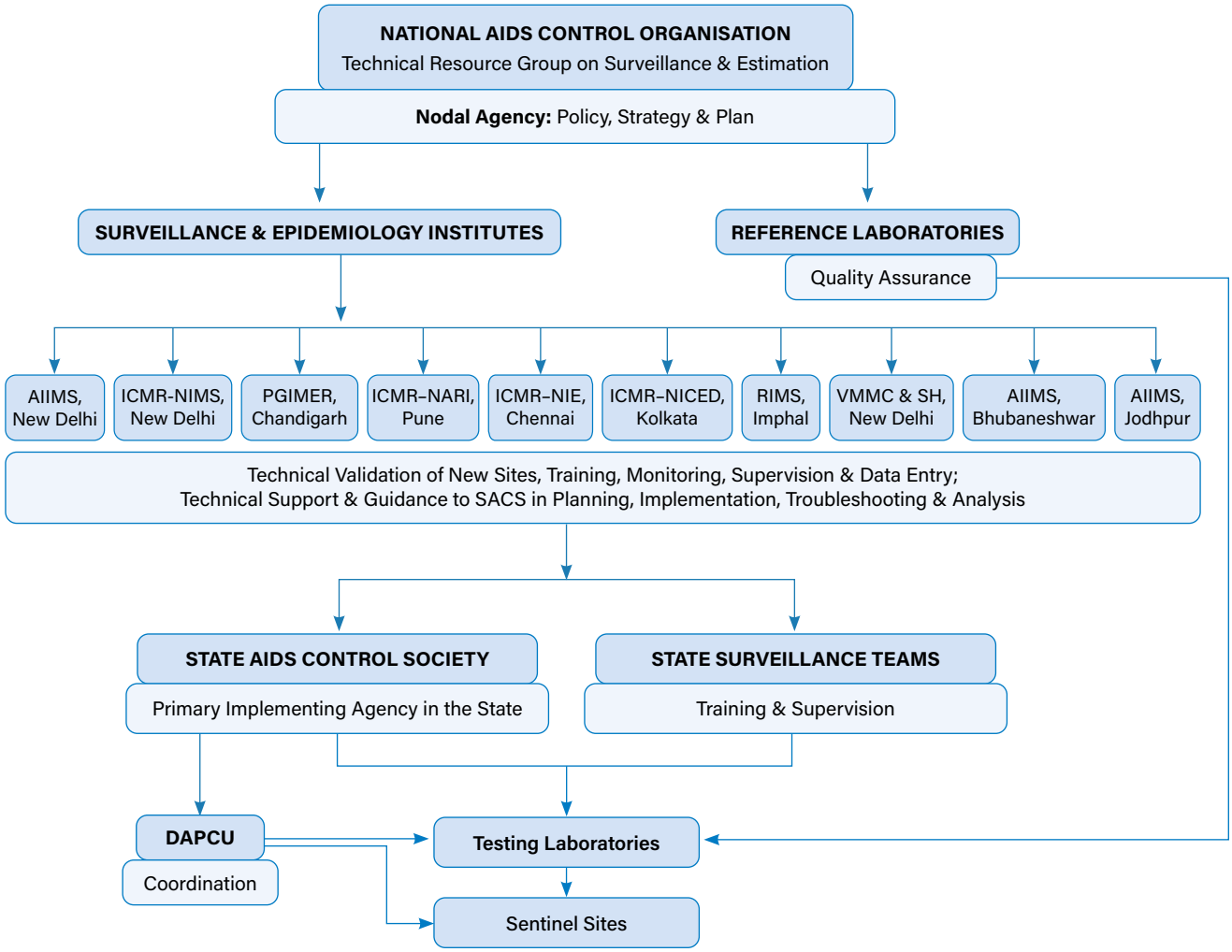
Chinmoyee Das 15/3/2024

(Dr Chinmoyee Das)
Assistant Director General-Strategic Information

To
1. Dr Arvind Pandey, National Chair (Medical Statistics), ICMR
2. Dr M. Vishnu Vardhana Rao, ICMR-NIMS
3. All members of HIV Burden Estimation Sub-Group as per list enclosed
4. Dr Pradeep Kumar, PO (Surveillance & Epidemiology), NACO

Copy To
1. Sr. PPS to Addl. Secretary & DG (NACO)
2. PPS to Director (NACO)
3. Dr Sanjay Mehendale, Chair, NACO's TRG (S&E) under National AIDS Control Programme
4. Dr DCS Reddy, Chair, NACO's Technical Working Group (S&E) under National AIDS Control Programme
5. Dr Shobini Rajan, Co-Chair, NACO's TWG (S&E) under National AIDS Control Programme
6. All HoDs & DDs, NACO

Annexure 2: Institutional Arrangement for Surveillance and Epidemiology under NACP



Annexure 3: Composition of NACO's Technical Working Group (Surveillance & Epidemiology)

File Number: T-11020/01/2021-NACO (Surveillance & Epidemiology)
National AIDS Control Organization
Ministry of Health & Family Welfare
Govt of India

6th and 9th Floor, Chanderlok Building,
36, Janpath, New Delhi, 110001
Dated 26th July 2021

OFFICE ORDER

Subject: Technical Working Group (TWG) on Surveillance & Epidemiology (S&E) under NACP

***

I. NACO's S&E functions have evolved significantly into an ambitious framework for integrated and enhanced Surveillance & Epidemiology of HIV, STIs and related co-morbidities under the National AIDS Control Programme to anchor the national AIDS response towards the attainment of 2030 SDG 3.3 of ending AIDS as a public health threat.

II. Consequent to the evolution of NACO's S&E functions necessitating the need to include new experts, it has been decided to reconstitute the TWG. The composition and ToR of the reconstituted TWG are as below:

Particulars	Details
Chair	Dr DCS Reddy (Former HoD, Department of Community Medicine, Institute of Medical Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh)
Co-Chair	Dr Shobini Rajan, CMO-SAG, NACO, GoI
Member Secretary	Senior-most consultant in SI (Surveillance and Epidemiology) division: Ex-officio member secretary
Ex-officio institutional member	1. Director, ICMR-NIMS New Delhi & All focal persons of national and regional institutes of Surveillance & Epidemiology 2. Nominee of Director (NCDC) engaged with viral hepatitis surveillance 3. Micro-biology lab in-charge, Apex Regional STI Centre, VMMC & Safdarjung Hospital, New Delhi/representatives 4. HoD, Dept of Community Medicine, Zoram Medical College, Govt of Mizoram/representatives 5. All Deputy Directors, NACO

Chinmee Das

Experts	1. Prof. Arvind Pandey, National Chair (Medical Statistics), ICMR and Former Director: ICMR - National Institute of Medical Statistics, New Delhi 2. Dr Shashi Kant, Professor and Head, Centre for Community Medicine, AIIMS, New Delhi 3. Dr S K Singh, Professor, Department of Mathematical Demography & Statistics, IIPS, Mumbai 4. Dr Aarti Tewari, Microbiologist, NCDC, New Delhi 5. Dr JVDS Prasad, Prof. of STD/DVL, Osmania Medical College, Hyderabad 6. Dr Venkateshan Chakrapani, Community Expert 7. Ms Shruta Rawat, Community Expert 8. Dr Brogen Singh Akoijam, Professor, Community Medicine RIMS-Imphal & Expert (Epidemiology) 9. Dr Vezokholu Theyo, Public Health Specialist, Nagaland
Special Invitees	Technical Experts/ UN/bilateral organizations/ Community Experts/ State AIDS Control Societies/Others: As per the approval of the Chair and Co-Chair (Up to 6 per meeting)

Terms of Reference (ToR)

1. Review and recommend the detailed design, operational manuals, tools, results, and policy implications of the activities of integrated and enhanced Surveillance and Epidemiology of HIV, STIs and related co-morbidities under the National AIDS Control Programme in view of the evolving programme needs and the global recommendations. This will include, but not limited to, following areas:
    a. The existing activities of various bio-behavioural surveillance survey, epidemiological investigations into the level, trend and drivers of the HIV/AIDS epidemic and related risk behaviours, in-depth analysis of epidemiological data, HRG size estimations, epidemic profile, district prioritization/categorization etc,
    b. HIV, STI and related Co-morbidities burden estimations (2020 and onward rounds)
    c. Newer activities of programme data-based surveillance & epidemiology, surveillance blood specimen repository, national/state/district level HIV burden estimations (programme-data based or any other suitable modelling techniques), stigma surveillance, mortality surveillance, incidence, and viral load surveillance etc.
2. Any other areas pertaining to the Surveillance & Epidemiology under NACP
3. Periodic review and recommendation on the action plans of national and regional institutes under SI-Surveillance & Epidemiology division of NACO including the project team structures, TA/DA norms, training norms, financial norms etc.
4. The working group will meet at least once in six months. The expenditure for the functioning of this Technical Working Group will be regulated in accordance with the instructions issued from time to time.
5. The recommendations of this working group will be presented/circulated to the TRG (Surveillance and Epidemiology) for their ratification/approval.

6. NACO will duly acknowledge the Technical Working Group in all publications (operational manuals, technical/policy briefs, reports, scientific papers) emanating from the activities carried out under the guidance of the TRG.

7. The members/special invitees may acquire knowledge and information during TWG meeting which is not available within the public domain otherwise. All such knowledge and information which may be acquired being TWG members shall be regarded as strictly confidential and shall not be directly and indirectly disclosed to any person until and unless the knowledge appears in the public domain through NACO's authorized publications/dissemination/releases.

III. The TWG will be reconstituted periodically as per the approval of the competent authority.

This issue with the approval of Additional Secretary & Director General (NACO), Government of India.

Chinmoyee Das
26/7/2021

(Dr Chinmoyee Das)
DD-SI Division

To

1. Dr DCS Reddy (Former HoD, Department of Community Medicine, Institute of Medical Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh)
2. All members of TWG (Surveillance & Epidemiology) mentioned above

Copy to

1. Sr. PPS to Additional Secretary & Director General, NACO
2. PS to Director (NK), NACO
3. All HoDs, NACO

Annexure 4: Composition of NACO's Technical Resource Group (Surveillance & Epidemiology)

T-11020/02/2015-NACO (Surveillance)/Part-2
National AIDS Control Organization
Ministry of Health & Family Welfare
Govt of India

6th and 9th Floor, Chanderlok Building,
36, Janpath, New Delhi, 110001
Dated 4th April 2022

OFFICE ORDER

Subject: Technical Resource Group (TRG) on Surveillance & Epidemiology (S&E) under NACP

***

1. NACO's S&E functions have evolved significantly into an ambitious framework for integrated and enhanced Surveillance & Epidemiology of HIV, STIs and related co-morbidities under the National AIDS Control Programme to anchor the national AIDS response towards the attainment of 2030 SDG 3.3 of ending AIDS as a public health threat.
2. Consequent to the evolution of NACO's S&E functions, changes in positions and non-availability of some members and the need to include members from other related institutions, it has been decided to reconstitute the TRG. The composition and ToR of the reconstituted TRG is as below:

Particulars	Details
Chair	Additional Secretary and Director General, NACO
Co-Chair	Dr Sanjay Mehendale (Former Additional Director General, ICMR and Director, Research, PD Hinduja Hospital and Medical Research Centre, Mumbai, India)
Member Secretary	HoD-Surveillance & Epidemiology (SI)
Ex-officio institutional member	1. Joint Secretary (JS), NACO as Ex-officio institutional member. In case the position of JS (NACO) is vacant, then officer at the level of Director/Deputy Secretary as nominated by AS&DG (NACO) till the position of JS (NACO) is filled up. 2. Nominee of DGHS I. From Directorate II. From Hospital (Central Government) 3. Nominee of Director, NCDC engaged with viral hepatitis 4. Country Director, WHO India/Representatives 5. Dr Peter Ghys, Director, Strategic Information and Evaluation, UNAIDS, Geneva/ Representatives 6. Country Director, UNAIDS India /Representatives 7. Head-Division of Epidemiology & Communicable Diseases, ICMR/Representatives 8. Focal Person, Apex Regional STI Centre, VMMC & Safdarjung Hospital, New Delhi 9. Focal Person, National Institutes (S&E, NACO) (AIIMS-New Delhi and ICMR-NIMS-New Delhi) 10. Focal Person-Apex Lab (Surveillance & Epidemiology), ICMR-NARI-Pune 11. Director, IIPS, Mumbai/Representatives 12. Programme Director, CoE, Maulana Azad Medical College, New Delhi 13. Programme Director, pCoE, Kalawati Saran Children's Hospital & Lady Hardinge Medical College, Delhi 14. All Heads of NACO's Programme divisions

Technical Experts	1. Dr DCS Reddy, Former HoD, Dept of Community Medicine, Banaras Hindu University, Lucknow and Ex-NPO, WHO 2. Prof. Arvind Pandey, National Chair (Medical Statistics), ICMR and Former Director: ICMR - National Institute of Medical Statistics, New Delhi 3. Dr Shashi Kant, Professor and Head, Centre for Community Medicine, AIIMS, New Delhi 4. Dr Rajesh Kumar, Ex-Head, School of Public Health, PGIMER, Chandigarh 5. Dr Raman Gangakhedkar, Former Head-Division of Epidemiology & Communicable Diseases, ICMR 6. Dr Bilali Camara, Senior Medical Epidemiologist 7. Dr Sanjay Dixit, Dept of Community Medicine, MGM Medical College, Indore 8. Dr D K Shukla, Former Director I/C, National Institute of Medical Statistics, New Delhi 9. Dr Sheela V Godbole, Scientist F and HoD-Epidemiology, ICMR-NARI-Pune 10. Dr PVM Lakshmi, Community Medicine and School of Public Health, PGIMER-Chandigarh 11. Mr Taoufik Bakkali, Former SI Advisor, UNAIDS India 12. Dr John Stover, Vice President, Avenir Health, and member, UNAIDS HIV Estimation Reference group 13. Mr Ashok R Kavi, Community expert 14. Mx Abhina Aher, Community expert 15. Shri Manoj Pardesi, Community expert 16. Dr Seema Sood, Professor, Dept. of Microbiology, AIIMS-New Delhi 17. Dr R S Gupta, Public Health expert & Former DDG, NACO 18. Dr Kuldeep Singh Sachdeva, HIV-TB expert & Former DDG, NACO 19. Dr Nandini K. Kumar, Bioethics expert
Special Invitees	Technical Experts/ UN/bilateral organizations/ Community Experts/ State AIDS Control Societies/Others (As per the approval of the Member Secretary): Up to 6 per meeting

Terms of Reference

1. The TRG will meet at least once a year.
2. The quorum for the meeting of the TRG shall be complete when
   a. The meeting is presided by either the Chair or the Co-Chair, and
   b. The meeting is attended by at-least one third of its total nominated member
3. The TRG will
   a. Provide strategic guidance to the integrated and enhanced Surveillance and Epidemiology of HIV, STIs and related co-morbidities under National AIDS Control Programme, and
   b. Review and recommend the design and results of the activities of Surveillance and Epidemiology (including estimations) as recommended by Technical Working Group-Surveillance & Epidemiology through presentation/circulation.
   c. Any other work as per the guidance of competent authority.
4. The expenditure for the functioning of the TRG will be regulated in accordance with the instructions issued from time to time. The coordination of the functioning will be done by the senior most consultant (S&E) in NACO.
5. NACO will duly acknowledge the Technical Resource Group in all publications (operational manuals, technical/policy briefs, reports, scientific papers) emanating from the activities carried out under the guidance of the TRG.

6. The members/special invitees may acquire knowledge and information during TRG meetings which is not available within the public domain otherwise. All such knowledge and information which may be acquired being TRG members shall be regarded as strictly confidential and shall not be directly and indirectly disclosed to any person until and unless the knowledge appears in the public domain through NACO's authorized publications/dissemination/releases.

3. The TRG will be reconstituted periodically as per the approval of the competent authority.

This issues with the approval of Addl. Secretary & DG, NACO, Government of India.

Chinmoyee Das
04/4/22
(Dr Chinmoyee Das)
HoD-Strategic Information

To

1. Dr Sanjay Mehendale (Former Additional Director General, ICMR and Director, Research, PD Hinduja Hospital and Medical Research Centre, Mumbai, India
2. All members of TRG (Surveillance & Epidemiology)

Copy to

1. Sr. PPS to Additional secretary & Director General, NACO
2. PPS to Director (NK), NACO
3. All HoDs, NACO

Annexure 5: State/UT-Wise HIV Estimates for Key Indicators, 2022

S. No.	State/UT	Percentage of Adult HIV Prevalence (15–49 years), 2022	Total Number of PLHIV, 2022 (in Thousands)	HIV Incidence per 1000 Uninfected Population, 2022	Total Number of Annual New HIV Infections, 2022 (in Thousands)	Percentage Change in Annual New HIV Infections, 2010–2022	AIDS-Related Mortality per 1,00,000 Population, 2022	Total Number of Annual AIDS-Related Deaths, 2022 (in Thousands)	Percentage Change in Annual AIDS-Related Deaths, 2010–2022	EVTH Services Need, 2022
1	Andhra Pradesh	0.64 (0.54–0.80)	321.54 (278.67–387.30)	0.10 (0.06–0.17)	5.24 (3.31–8.66)	–58.92	12.7 (8.79–19.30)	6.71 (4.64–10.19)	–80.56	1863 (1540–2310)
2	Arunachal Pradesh	0.13 (0.09–0.19)	1.37 (0.90–2.00)	0.11 (0.06–0.19)	0.17 (0.09–0.30)	188.33	1.52 (0.86–2.55)	0.02 (0.01–0.04)	91.67	23 (15–34)
3	Assam	0.11 (0.10–0.12)	30.07 (26.41–34.66)	0.08 (0.06–0.11)	2.83 (2.18–3.76)	74.60	1.73 (1.35–2.26)	0.61 (0.48–0.79)	–4.25	402 (342–476)
4	Bihar	0.17 (0.14–0.20)	156.09 (127.32–184.36)	0.07 (0.05–0.11)	9.18 (6.29–13.69)	–3.59	2.14 (1.38–3.08)	2.65 (1.71–3.81)	–36.06	2525 (2052–3065)
5	Chhattisgarh	0.17 (0.15–0.20)	40.79 (34.88–47.36)	0.05 (0.03–0.07)	1.54 (1.01–2.21)	–44.84	3.81 (2.61–5.43)	1.13 (0.77–1.61)	–68.78	505 (414–618)
6	Delhi	0.32 (0.27–0.38)	58.56 (49.45–70.14)	0.14 (0.10–0.21)	2.96 (2.14–4.38)	–14.99	5.40 (2.85–9.56)	1.12 (0.59–1.98)	21.58	383 (315–475)
7	Goa	0.30 (0.26–0.38)	4.59 (3.96–5.55)	0.07 (0.05–0.11)	0.11 (0.08–0.17)	2.75	3.37 (2.30–5.39)	0.05 (0.04–0.08)	–89.96	33 (26–41)
8	Gujarat	0.18 (0.17–0.21)	115.18 (106.70–132.67)	0.03 (0.02–0.05)	2.41 (1.71–3.79)	–57.88	1.22 (0.87–1.83)	0.86 (0.61–1.28)	–71.12	1120 (981–1313)
9	Himachal Pradesh	0.11 (0.08–0.13)	7.48 (5.91–9.17)	0.02 (0.01–0.04)	0.17 (0.11–0.28)	–57.74	1.52 (0.74–2.68)	0.11 (0.06–0.20)	–66.57	38 (29–50)
10	Haryana	0.23 (0.19–0.27)	54.46 (46.71–64.57)	0.07 (0.05–0.11)	2.11 (1.48–3.32)	–40.76	1.26 (0.92–1.82)	0.38 (0.27–0.54)	–81.79	512 (423–630)
11	Jharkhand	0.08 (0.06–0.11)	25.61 (18.57–33.85)	0.03 (0.01–0.06)	1.20 (0.49–2.29)	–22.34	0.79 (0.40–1.54)	0.30 (0.15–0.59)	–51.82	348 (247–478)
12	Jammu & Kashmir and Ladakh	0.06 (0.04–0.10)	6.67 (4.31–10.73)	0.02 (0.01–0.05)	0.22 (0.10–0.72)	–51.63	0.94 (0.38–2.11)	0.13 (0.05–0.28)	–13.70	56 (35–95)
13	Karnataka	0.43 (0.38–0.51)	273.59 (242.04–311.63)	0.05 (0.04–0.07)	3.42 (2.54–4.57)	–65.80	9.82 (6.57–14.19)	6.58 (4.40–9.50)	–77.63	1604 (1390–1895)
14	Kerala	0.06 (0.05–0.07)	20.7 (16.76–25.52)	0.01 (0.005–0.01)	0.26 (0.17–0.38)	–77.34	0.36 (0.23–0.59)	0.13 (0.08–0.21)	–85.84	99 (82–125)
15	Meghalaya	0.39 (0.32–0.48)	8.56 (6.88–10.48)	0.31 (0.21–0.47)	1.02 (0.69–1.55)	150.12	1.99 (1.37–2.79)	0.07 (0.05–0.09)	–1.49	305 (245–379)
16	Maharashtra	0.30 (0.26–0.38)	388.08 (336.71–463.77)	0.04 (0.02–0.06)	4.46 (2.78–7.59)	–62.35	5.31 (3.43–8.98)	6.63 (4.28–11.21)	–81.58	2334 (1962–2953)
17	Manipur	0.94 (0.79–1.12)	25.95 (22.14–30.08)	0.27 (0.16–0.46)	0.84 (0.50–1.46)	–37.30	18.24 (13.05–25.93)	0.58 (0.41–0.82)	–66.49	314 (254–391)
18	Madhya Pradesh	0.09 (0.08–0.09)	58.45 (53.22–64.61)	0.02 (0.01–0.03)	1.50 (0.95–2.15)	–58.28	0.96 (0.74–1.28)	0.82 (0.63–1.08)	–81.02	662 (580–758)
19	Mizoram	2.34 (2.01–2.75)	21.44 (18.30–25.29)	0.86 (0.62–1.16)	1.03 (0.74–1.39)	–26.29	9.24 (6.60–12.55)	0.11 (0.08–0.15)	–80.81	288 (245–345)
20	Nagaland	1.34 (1.03–1.75)	22.18 (17.21–28.19)	0.48 (0.23–0.89)	1.05 (0.50–1.93)	–34.78	12.07 (7.38–19.87)	0.27 (0.16–0.44)	–68.19	278 (209–369)
21	Odisha	0.14 (0.11–0.18)	52.88 (42.26–66.03)	0.04 (0.02–0.07)	1.84 (0.92–3.27)	–51.72	3.31 (1.92–5.01)	1.51 (0.88–2.30)	–44.91	499 (362–668)
22	Punjab	0.30 (0.24–0.38)	80.79 (65.13–99.61)	0.07 (0.05–0.10)	2.00 (1.46–2.97)	–59.96	2.06 (1.26–3.10)	0.63 (0.38–0.94)	–82.65	819 (662–1051)
23	Rajasthan	0.11 (0.08–0.14)	71.12 (55.46–89.28)	0.03 (0.02–0.06)	2.39 (1.31–4.75)	–39.25	0.44 (0.30–0.68)	0.35 (0.24–0.54)	–78.10	929 (696–1191)
24	Sikkim	0.08 (0.04–0.13)	0.45 (0.26–0.71)	0.03 (0.01–0.09)	0.02 (0.01–0.06)	–36.67	0.41 (0.17–0.93)	0.003 (0.001–0.01)	–25.00	9 (5–16)
25	Tamil Nadu	0.21 (0.16–0.25)	164.66 (137.79–195.03)	0.03 (0.02–0.05)	2.34 (1.21–3.73)	–57.69	2.64 (1.67–4.26)	2.02 (1.28–3.26)	–79.10	1071 (895–1297)
26	Tripura	0.22 (0.13–0.32)	6.08 (3.59–8.66)	0.18 (0.07–0.31)	0.75 (0.27–1.27)	303.24	0.46 (0.24–0.73)	0.02 (0.01–0.03)	46.15	56 (32–82)
27	Uttarakhand	0.13 (0.11–0.15)	12.22 (10.25–14.48)	0.05 (0.03–0.07)	0.52 (0.30–0.84)	–38.67	2.86 (1.98–3.87)	0.33 (0.23–0.44)	–34.47	108 (83–136)
28	Uttar Pradesh	0.11 (0.08–0.14)	194.9 (145.55–249.92)	0.04 (0.02–0.07)	9.88 (5.22–16.61)	–12.59	0.96 (0.55–1.71)	2.23 (1.27–3.96)	–65.25	1881 (1414–2429)
29	West Bengal	0.08 (0.07–0.10)	76.10 (65.64–89.89)	0.03 (0.02–0.05)	2.73 (1.56–4.75)	–32.55	0.83 (0.56–1.26)	0.81 (0.55–1.24)	–81.47	563 (460–713)
30	A&N Islands	0.14 (0.06–0.35)	0.45 (0.20–1.10)	0.04 (0.01–0.28)	0.02 (0.00–0.11)	–64.44	3.26 (0.65–9.69)	0.01 (0.003–0.04)	–40.91	4 (1–11)
31	Chandigarh	0.24 (0.17–0.34)	2.39 (1.70–3.27)	0.06 (0.03–0.18)	0.08 (0.04–0.21)	–40.77	1.22 (0.76–2.33)	0.02 (0.01–0.03)	–57.14	17 (12–24)
32	DNH&DD	0.19 (0.11–0.29)	1.70 (1.00–2.54)	0.08 (0.03–0.20)	0.09 (0.04–0.23)	19.72	1.37 (0.50–4.00)	0.02 (0.01–0.05)	–51.61	10 (6–16)
33	Puducherry	0.21 (0.14–0.31)	2.93 (2.00–4.09)	0.06 (0.03–0.11)	0.10 (0.05–0.18)	–54.67	4.64 (1.49–9.56)	0.07 (0.02–0.15)	138.71	17 (11–27)
34	Telangana	0.45 (0.37–0.55)	158.97 (134.99–186.68	0.05 (0.03–0.10)	1.95 (1.08–3.64)	–69.17	6.27 (3.67–10.48)	2.37 (1.39–3.96)	–84.95	1062 (876–1293)
	India	**0.20 (0.17–0.25)**	**2466.98 (2084.03–2952.43)**	**0.05 (0.03–0.08)**	**66.41 (41.51–106.94)**	**–42.17**	**2.90 (1.89–4.53)**	**39.63 (25.79–61.95)**	**–76.57**	**20737 (16913–25745)**

Annexure 6: India HIV Estimates of State/UT-Wise Adult HIV Prevalence (15–49 Years), 2010–2022

S. No.	State/UT	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1	Andhra Pradesh	1.27 (1.08–1.54)	1.18 (1.01–1.44)	1.11 (0.95–1.37)	1.05 (0.90–1.29)	1.00 (0.85–1.22)	0.94 (0.80–1.15)	0.88 (0.76–1.08)	0.84 (0.72–1.03)	0.79 (0.67–0.97)	0.75 (0.64–0.92)	0.71 (0.6–0.88)	0.67 (0.57–0.83)	0.64 (0.54–0.80)
2	Arunachal Pradesh	0.04 (0.03–0.06)	0.05 (0.03–0.06)	0.05 (0.04–0.07)	0.06 (0.04–0.07)	0.06 (0.05–0.08)	0.07 (0.05–0.09)	0.07 (0.05–0.10)	0.08 (0.06–0.11)	0.09 (0.06–0.12)	0.10 (0.07–0.14)	0.11 (0.07–0.15)	0.12 (0.08–0.17)	0.13 (0.09–0.19)
3	Assam	0.07 (0.06–0.08)	0.07 (0.07–0.09)	0.08 (0.07–0.09)	0.08 (0.07–0.09)	0.08 (0.07–0.09)	0.08 (0.08–0.09)	0.09 (0.08–0.09)	0.09 (0.08–0.10)	0.09 (0.08–0.10)	0.10 (0.09–0.10)	0.10 (0.09–0.11)	0.1 (0.09–0.12)	0.11 (0.10–0.12)
4	Bihar	0.15 (0.12–0.17)	0.15 (0.13–0.18)	0.15 (0.13–0.18)	0.16 (0.13–0.18)	0.16 (0.13–0.19)	0.16 (0.13–0.19)	0.16 (0.14–0.19)	0.16 (0.14–0.19)	0.17 (0.14–0.19)	0.17 (0.14–0.19)	0.17 (0.14–0.20)	0.17 (0.14–0.20)	0.17 (0.14–0.20)
5	Chhattisgarh	0.26 (0.22–0.31)	0.24 (0.21–0.29)	0.23 (0.20–0.28)	0.22 (0.19–0.26)	0.21 (0.18–0.25)	0.21 (0.18–0.24)	0.20 (0.17–0.23)	0.19 (0.17–0.22)	0.19 (0.16–0.22)	0.18 (0.16–0.21)	0.18 (0.16–0.21)	0.17 (0.15–0.20)	0.17 (0.15–0.20)
6	Delhi	0.29 (0.24–0.34)	0.30 (0.26–0.35)	0.31 (0.27–0.36)	0.32 (0.28–0.36)	0.33 (0.29–0.37)	0.33 (0.29–0.38)	0.33 (0.29–0.38)	0.33 (0.29–0.38)	0.33 (0.28–0.38)	0.33 (0.28–0.38)	0.32 (0.27–0.38)	0.32 (0.27–0.38)	0.32 (0.27–0.38)
7	Goa	0.58 (0.48–0.74)	0.53 (0.45–0.67)	0.49 (0.42–0.61)	0.46 (0.40–0.57)	0.44 (0.38–0.54)	0.41 (0.36–0.51)	0.39 (0.34–0.48)	0.38 (0.33–0.46)	0.36 (0.31–0.44)	0.34 (0.29–0.42)	0.33 (0.28–0.41)	0.31 (0.27–0.40)	0.30 (0.26–0.38)
8	Gujarat	0.22 (0.19–0.25)	0.21 (0.19–0.25)	0.21 (0.20–0.24)	0.21 (0.20–0.24)	0.21 (0.20–0.24)	0.21 (0.19–0.23)	0.20 (0.19–0.23)	0.20 (0.19–0.23)	0.20 (0.19–0.22)	0.20 (0.19–0.22)	0.19 (0.18–0.22)	0.19 (0.18–0.21)	0.18 (0.17–0.21)
9	Himachal Pradesh	0.15 (0.11–0.18)	0.14 (0.11–0.18)	0.14 (0.11–0.18)	0.14 (0.11–0.17)	0.13 (0.10–0.17)	0.13 (0.10–0.16)	0.13 (0.10–0.16)	0.13 (0.10–0.16)	0.12 (0.09–0.15)	0.12 (0.09–0.15)	0.12 (0.09–0.14)	0.11 (0.08–0.14)	0.11 (0.08–0.13)
10	Haryana	0.22 (0.17–0.27)	0.22 (0.18–0.27)	0.22 (0.18–0.27)	0.22 (0.19–0.27)	0.23 (0.19–0.26)	0.23 (0.19–0.26)	0.23 (0.19–0.26)	0.23 (0.20–0.26)	0.23 (0.20–0.26)	0.23 (0.20–0.27)	0.23 (0.20–0.27)	0.23 (0.19–0.27)	0.23 (0.19–0.27)
11	Jharkhand	0.08 (0.06–0.11)	0.08 (0.06–0.11)	0.08 (0.06–0.11)	0.08 (0.06–0.11)	0.08 (0.06–0.11)	0.08 (0.06–0.11)	0.08 (0.06–0.11)	0.08 (0.06–0.11)	0.08 (0.06–0.11)	0.08 (0.06–0.11)	0.08 (0.06–0.11)	0.08 (0.06–0.11)	0.08 (0.06–0.11)
12	Jammu & Kashmir and Ladakh	0.05 (0.04–0.08)	0.06 (0.04–0.08)	0.06 (0.04–0.08)	0.06 (0.04–0.08)	0.06 (0.04–0.09)	0.06 (0.04–0.09)	0.06 (0.04–0.09)	0.06 (0.04–0.09)	0.06 (0.04–0.09)	0.06 (0.04–0.09)	0.06 (0.04–0.09)	0.06 (0.04–0.09)	0.06 (0.04–0.10)
13	Karnataka	0.90 (0.76–1.09)	0.84 (0.71–1.01)	0.79 (0.67–0.94)	0.74 (0.63–0.89)	0.70 (0.60–0.83)	0.66 (0.57–0.78)	0.62 (0.54–0.73)	0.58 (0.51–0.68)	0.54 (0.48–0.64)	0.52 (0.45–0.60)	0.49 (0.43–0.57)	0.46 (0.41–0.54)	0.43 (0.38–0.51)
14	Kerala	0.09 (0.07–0.12)	0.09 (0.07–0.12)	0.09 (0.07–0.11)	0.08 (0.07–0.11)	0.08 (0.06–0.11)	0.08 (0.06–0.10)	0.07 (0.06–0.09)	0.07 (0.06–0.09)	0.07 (0.05–0.09)	0.07 (0.05–0.08)	0.06 (0.05–0.08)	0.06 (0.05–0.08)	0.06 (0.05–0.07)
15	Meghalaya	0.12 (0.09–0.15)	0.14 (0.10–0.17)	0.15 (0.12–0.19)	0.17 (0.13–0.21)	0.19 (0.15–0.24)	0.22 (0.17–0.26)	0.24 (0.19–0.28)	0.26 (0.22–0.30)	0.29 (0.24–0.33)	0.31 (0.26–0.36)	0.34 (0.28–0.39)	0.36 (0.30–0.43)	0.39 (0.32–0.48)
16	Maharashtra	0.62 (0.54–0.76)	0.58 (0.50–0.71)	0.54 (0.47–0.66)	0.51 (0.44–0.63)	0.49 (0.42–0.59)	0.46 (0.40–0.55)	0.43 (0.37–0.52)	0.41 (0.35–0.50)	0.38 (0.33–0.47)	0.36 (0.32–0.45)	0.34 (0.30–0.43)	0.32 (0.28–0.41)	0.30 (0.26–0.38)
17	Manipur	1.72 (1.46–2.03)	1.64 (1.41–1.93)	1.55 (1.33–1.81)	1.46 (1.25–1.69)	1.37 (1.17–1.59)	1.29 (1.10–1.49)	1.22 (1.04–1.41)	1.15 (0.98–1.34)	1.10 (0.93–1.28)	1.05 (0.89–1.23)	1.01 (0.86–1.19)	0.97 (0.82–1.15)	0.94 (0.79–1.12)
18	Madhya Pradesh	0.13 (0.12–0.15)	0.12 (0.11–0.14)	0.12 (0.11–0.13)	0.11 (0.11–0.12)	0.11 (0.10–0.12)	0.11 (0.10–0.11)	0.10 (0.10–0.11)	0.10 (0.09–0.11)	0.10 (0.09–0.10)	0.09 (0.09–0.10)	0.09 (0.08–0.10)	0.09 (0.08–0.10)	0.09 (0.08–0.09)
19	Mizoram	1.75 (1.48–2.00)	1.81 (1.54–2.05)	1.87 (1.61–2.09)	1.93 (1.69–2.15)	2.00 (1.77–2.22)	2.07 (1.84–2.29)	2.14 (1.91–2.38)	2.22 (1.97–2.49)	2.28 (2.02–2.59)	2.32 (2.04–2.66)	2.34 (2.03–2.70)	2.33 (2.01–2.73)	2.34 (2.01–2.75)
20	Nagaland	1.38 (1.15–1.65)	1.39 (1.15–1.66)	1.39 (1.15–1.66)	1.39 (1.16–1.68)	1.39 (1.15–1.68)	1.38 (1.14–1.68)	1.38 (1.14–1.68)	1.37 (1.13–1.68)	1.37 (1.12–1.70)	1.37 (1.11–1.72)	1.36 (1.09–1.73)	1.35 (1.06–1.73)	1.34 (1.03–1.75)
21	Odisha	0.16 (0.12–0.20)	0.16 (0.12–0.19)	0.16 (0.12–0.19)	0.16 (0.13–0.19)	0.16 (0.13–0.19)	0.15 (0.13–0.19)	0.15 (0.13–0.19)	0.15 (0.13–0.19)	0.15 (0.12–0.19)	0.15 (0.12–0.18)	0.15 (0.12–0.18)	0.14 (0.11–0.18)	0.14 (0.11–0.18)
22	Punjab	0.33 (0.25–0.42)	0.33 (0.26–0.41)	0.33 (0.26–0.40)	0.33 (0.26–0.40)	0.32 (0.26–0.40)	0.32 (0.26–0.39)	0.32 (0.27–0.39)	0.32 (0.27–0.39)	0.32 (0.26–0.39)	0.32 (0.26–0.39)	0.31 (0.25–0.39)	0.31 (0.25–0.38)	0.30 (0.24–0.38)
23	Rajasthan	0.11 (0.09–0.14)	0.11 (0.09–0.14)	0.11 (0.09–0.14)	0.11 (0.10–0.14)	0.11 (0.10–0.14)	0.11 (0.09–0.14)	0.11 (0.09–0.14)	0.11 (0.09–0.14)	0.11 (0.09–0.14)	0.11 (0.09–0.14)	0.11 (0.09–0.14)	0.11 (0.08–0.14)	0.11 (0.08–0.14)
24	Sikkim	0.05 (0.03–0.14)	0.06 (0.04–0.13)	0.06 (0.04–0.13)	0.06 (0.04–0.12)	0.07 (0.05–0.12)	0.07 (0.05–0.12)	0.07 (0.05–0.11)	0.07 (0.05–0.11)	0.08 (0.05–0.11)	0.08 (0.05–0.11)	0.08 (0.05–0.12)	0.08 (0.04–0.12)	0.08 (0.04–0.13)
25	Tamil Nadu	0.35 (0.30–0.43)	0.34 (0.28–0.41)	0.32 (0.27–0.39)	0.31 (0.26–0.38)	0.30 (0.25–0.36)	0.29 (0.24–0.35)	0.27 (0.23–0.33)	0.26 (0.22–0.31)	0.25 (0.21–0.30)	0.24 (0.20–0.29)	0.23 (0.18–0.27)	0.22 (0.17–0.26)	0.21 (0.16–0.25)
26	Tripura	0.04 (0.04–0.05)	0.05 (0.04–0.06)	0.06 (0.05–0.07)	0.07 (0.05–0.09)	0.08 (0.06–0.10)	0.09 (0.07–0.12)	0.11 (0.08–0.14)	0.12 (0.09–0.16)	0.14 (0.10–0.18)	0.16 (0.11–0.21)	0.18 (0.12–0.24)	0.20 (0.13–0.28)	0.22 (0.13–0.32)
27	Uttarakhand	0.14 (0.11–0.18)	0.14 (0.12–0.18)	0.14 (0.12–0.18)	0.14 (0.12–0.17)	0.14 (0.12–0.17)	0.14 (0.12–0.17)	0.14 (0.12–0.16)	0.14 (0.12–0.16)	0.14 (0.12–0.16)	0.14 (0.12–0.16)	0.13 (0.11–0.16)	0.13 (0.11–0.15)	0.13 (0.11–0.15)
28	Uttar Pradesh	0.11 (0.08–0.13)	0.11 (0.08–0.13)	0.11 (0.08–0.14)	0.11 (0.08–0.14)	0.11 (0.08–0.13)	0.11 (0.08–0.13)	0.11 (0.08–0.13)	0.11 (0.08–0.13)	0.11 (0.08–0.13)	0.11 (0.08–0.13)	0.11 (0.08–0.13)	0.11 (0.08–0.14)	0.11 (0.08–0.14)
29	West Bengal	0.11 (0.09–0.13)	0.10 (0.09–0.13)	0.10 (0.09–0.12)	0.10 (0.08–0.12)	0.10 (0.08–0.12)	0.10 (0.08–0.11)	0.09 (0.08–0.11)	0.09 (0.08–0.11)	0.09 (0.08–0.10)	0.09 (0.08–0.10)	0.09 (0.08–0.10)	0.09 (0.07–0.10)	0.08 (0.07–0.10)
30	A&N Islands	0.12 (0.06–0.21)	0.13 (0.06–0.22)	0.13 (0.07–0.23)	0.14 (0.07–0.23)	0.14 (0.07–0.24)	0.15 (0.07–0.25)	0.16 (0.07–0.27)	0.16 (0.07–0.28)	0.16 (0.07–0.30)	0.16 (0.07–0.31)	0.15 (0.07–0.33)	0.15 (0.06–0.34)	0.14 (0.06–0.35)
31	Chandigarh	0.17 (0.15–0.22)	0.18 (0.15–0.23)	0.19 (0.16–0.24)	0.20 (0.17–0.25)	0.21 (0.17–0.26)	0.22 (0.18–0.27)	0.23 (0.18–0.27)	0.24 (0.19–0.29)	0.25 (0.19–0.30)	0.25 (0.19–0.31)	0.25 (0.18–0.32)	0.24 (0.18–0.33)	0.24 (0.17–0.34)
32	DNH&DD	0.16 (0.07–0.24)	0.16 (0.08–0.24)	0.17 (0.08–0.25)	0.17 (0.09–0.25)	0.17 (0.09–0.26)	0.18 (0.10–0.26)	0.18 (0.10–0.27)	0.18 (0.11–0.28)	0.19 (0.11–0.28)	0.19 (0.11–0.28)	0.19 (0.11–0.28)	0.19 (0.11–0.28)	0.19 (0.11–0.29)
33	Puducherry	0.28 (0.17–0.40)	0.29 (0.18–0.43)	0.29 (0.18–0.42)	0.28 (0.18–0.41)	0.27 (0.17–0.40)	0.27 (0.17–0.39)	0.26 (0.16–0.37)	0.25 (0.16–0.36)	0.24 (0.15–0.35)	0.23 (0.15–0.33)	0.22 (0.14–0.33)	0.21 (0.14–0.31)	0.21 (0.14–0.31)
34	Telangana	0.86 (0.71–1.05)	0.80 (0.66–0.98)	0.75 (0.62–0.92)	0.71 (0.59–0.87)	0.67 (0.56–0.82)	0.64 (0.53–0.77)	0.60 (0.50–0.72)	0.57 (0.47–0.68)	0.54 (0.45–0.65)	0.52 (0.43–0.63)	0.50 (0.41–0.61)	0.48 (0.39–0.58)	0.45 (0.37–0.55)
	India	**0.32 (0.27–0.39)**	**0.31 (0.25–0.37)**	**0.29 (0.24–0.36)**	**0.28 (0.23–0.35)**	**0.27 (0.22–0.33)**	**0.26 (0.22–0.32)**	**0.25 (0.21–0.31)**	**0.24 (0.2–0.3)**	**0.23 (0.19–0.29)**	**0.22 (0.19–0.28)**	**0.22 (0.18–0.27)**	**0.21 (0.17–0.26)**	**0.20 (0.17–0.25)**

Annexure 7: India HIV Estimates of State/UT-Wise HIV Incidence (per 1000 Uninfected Population), 2010–2022

S. No.	State/UT	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1	Andhra Pradesh	0.27 (0.20–0.39)	0.24 (0.18–0.35)	0.21 (0.16–0.32)	0.18 (0.13–0.27)	0.16 (0.12–0.25)	0.15 (0.10–0.24)	0.13 (0.09–0.22)	0.12 (0.07–0.20)	0.11 (0.06–0.18)	0.11 (0.07–0.19)	0.13 (0.08–0.20)	0.12 (0.08–0.19)	0.10 (0.06–0.17)
2	Arunachal Pradesh	0.05 (0.03–0.06)	0.05 (0.04–0.07)	0.06 (0.04–0.08)	0.06 (0.04–0.09)	0.07 (0.04–0.10)	0.07 (0.05–0.11)	0.08 (0.05–0.12)	0.09 (0.06–0.13)	0.10 (0.06–0.15)	0.11 (0.06–0.16)	0.11 (0.06–0.17)	0.12 (0.07–0.19)	0.11 (0.06–0.19)
3	Assam	0.05 (0.05–0.06)	0.05 (0.05–0.06)	0.06 (0.05–0.07)	0.05 (0.05–0.07)	0.06 (0.05–0.07)	0.06 (0.05–0.07)	0.06 (0.05–0.07)	0.06 (0.05–0.08)	0.06 (0.05–0.08)	0.07 (0.05–0.09)	0.07 (0.05–0.09)	0.08 (0.06–0.10)	0.08 (0.06–0.11)
4	Bihar	0.09 (0.08–0.12)	0.09 (0.08–0.12)	0.09 (0.08–0.12)	0.09 (0.07–0.12)	0.09 (0.07–0.11)	0.09 (0.07–0.11)	0.09 (0.06–0.11)	0.08 (0.06–0.11)	0.08 (0.06–0.11)	0.08 (0.06–0.11)	0.08 (0.06–0.11)	0.08 (0.05–0.11)	0.07 (0.05–0.11)
5	Chhattisgarh	0.11 (0.09–0.14)	0.10 (0.08–0.12)	0.10 (0.08–0.12)	0.09 (0.07–0.11)	0.08 (0.06–0.10)	0.07 (0.05–0.09)	0.07 (0.05–0.10)	0.06 (0.05–0.08)	0.07 (0.05–0.10)	0.07 (0.05–0.09)	0.06 (0.04–0.09)	0.06 (0.04–0.08)	0.05 (0.03–0.07)
6	Delhi	0.21 (0.18–0.26)	0.22 (0.18–0.27)	0.21 (0.17–0.26)	0.19 (0.15–0.24)	0.18 (0.14–0.24)	0.16 (0.12–0.21)	0.13 (0.10–0.18)	0.12 (0.08–0.16)	0.11 (0.08–0.15)	0.10 (0.08–0.15)	0.12 (0.09–0.17)	0.13 (0.09–0.19)	0.14 (0.10–0.21)
7	Goa	0.08 (0.04–0.13)	0.08 (0.05–0.13)	0.08 (0.05–0.12)	0.11 (0.08–0.15)	0.10 (0.07–0.14)	0.10 (0.08–0.14)	0.10 (0.08–0.14)	0.10 (0.07–0.14)	0.10 (0.07–0.14)	0.08 (0.05–0.12)	0.07 (0.05–0.11)	0.08 (0.05–0.12)	0.07 (0.05–0.11)
8	Gujarat	0.10 (0.08–0.12)	0.09 (0.08–0.11)	0.08 (0.07–0.10)	0.07 (0.06–0.09)	0.06 (0.05–0.08)	0.06 (0.05–0.08)	0.06 (0.05–0.08)	0.07 (0.05–0.08)	0.06 (0.04–0.07)	0.05 (0.04–0.06)	0.04 (0.03–0.06)	0.04 (0.03–0.06)	0.03 (0.02–0.05)
9	Himachal Pradesh	0.06 (0.04–0.08)	0.05 (0.04–0.08)	0.05 (0.02–0.07)	0.04 (0.02–0.06)	0.04 (0.02–0.06)	0.02 (0.02–0.04)	0.02 (0.02–0.03)	0.02 (0.01–0.03)	0.02 (0.01–0.03)	0.02 (0.01–0.03)	0.02 (0.01–0.03)	0.02 (0.01–0.03)	0.02 (0.01–0.04)
10	Haryana	0.14 (0.12–0.18)	0.15 (0.12–0.18)	0.14 (0.11–0.17)	0.13 (0.10–0.16)	0.13 (0.10–0.16)	0.12 (0.1–0.16)	0.13 (0.10–0.16)	0.12 (0.10–0.16)	0.13 (0.10–0.17)	0.11 (0.07–0.15)	0.09 (0.06–0.13)	0.07 (0.05–0.12)	0.07 (0.05–0.11)
11	Jharkhand	0.05 (0.03–0.07)	0.05 (0.03–0.07)	0.04 (0.03–0.06)	0.04 (0.03–0.06)	0.04 (0.03–0.06)	0.04 (0.02–0.05)	0.04 (0.02–0.05)	0.03 (0.02–0.05)	0.04 (0.02–0.06)	0.04 (0.02–0.06)	0.03 (0.02–0.06)	0.03 (0.02–0.06)	0.03 (0.01–0.06)
12	Jammu & Kashmir and Ladakh	0.04 (0.03–0.06)	0.04 (0.02–0.06)	0.04 (0.02–0.06)	0.03 (0.02–0.06)	0.03 (0.02–0.05)	0.03 (0.02–0.06)	0.03 (0.01–0.06)	0.03 (0.01–0.06)	0.03 (0.01–0.06)	0.02 (0.01–0.06)	0.02 (0.01–0.06)	0.02 (0.01–0.06)	0.02 (0.01–0.05)
13	Karnataka	0.17 (0.13–0.24)	0.14 (0.11–0.20)	0.11 (0.09–0.16)	0.09 (0.07–0.12)	0.09 (0.07–0.12)	0.08 (0.06–0.12)	0.07 (0.05–0.11)	0.06 (0.04–0.09)	0.06 (0.04–0.08)	0.07 (0.05–0.10)	0.06 (0.04–0.08)	0.06 (0.04–0.08)	0.05 (0.04–0.07)
14	Kerala	0.03 (0.02–0.05)	0.03 (0.02–0.05)	0.01 (0.01–0.03)	0.01 (0.01–0.02)	0.01 (0.01–0.02)	0.01 (0.01–0.02)	0.01 (0.01–0.01)	0.01 (0.01–0.01)	0.01 (0.01–0.01)	0.01 (0.01–0.01)	0.01 (0.01–0.01)	0.01 (0.01–0.01)	0.01 (0.005–0.01)
15	Meghalaya	0.14 (0.10–0.19)	0.16 (0.12–0.21)	0.18 (0.14–0.22)	0.19 (0.15–0.24)	0.21 (0.16–0.26)	0.23 (0.18–0.28)	0.22 (0.18–0.28)	0.24 (0.18–0.29)	0.23 (0.18–0.30)	0.25 (0.18–0.32)	0.28 (0.20–0.38)	0.29 (0.20–0.42)	0.31 (0.21–0.47)
16	Maharashtra	0.11 (0.08–0.16)	0.09 (0.07–0.14)	0.08 (0.06–0.13)	0.07 (0.05–0.11)	0.06 (0.04–0.09)	0.06 (0.03–0.09)	0.06 (0.04–0.10)	0.07 (0.04–0.11)	0.06 (0.04–0.10)	0.05 (0.03–0.08)	0.04 (0.03–0.07)	0.04 (0.03–0.07)	0.04 (0.02–0.06)
17	Manipur	0.54 (0.43–0.68)	0.49 (0.39–0.62)	0.45 (0.35–0.58)	0.41 (0.32–0.54)	0.38 (0.29–0.51)	0.35 (0.26–0.47)	0.32 (0.23–0.44)	0.29 (0.21–0.41)	0.30 (0.21–0.43)	0.31 (0.21–0.46)	0.31 (0.20–0.47)	0.30 (0.19–0.47)	0.27 (0.16–0.46)
18	Madhya Pradesh	0.05 (0.04–0.06)	0.05 (0.04–0.06)	0.04 (0.04–0.05)	0.04 (0.03–0.05)	0.03 (0.03–0.04)	0.03 (0.02–0.04)	0.03 (0.02–0.04)	0.03 (0.02–0.04)	0.03 (0.02–0.04)	0.02 (0.02–0.03)	0.02 (0.02–0.03)	0.02 (0.01–0.03)	0.02 (0.01–0.03)
19	Mizoram	1.33 (1.14–1.56)	1.39 (1.20–1.64)	1.38 (1.18–1.65)	1.43 (1.22–1.74)	1.39 (1.16–1.69)	1.41 (1.16–1.73)	1.44 (1.17–1.78)	1.42 (1.12–1.78)	1.33 (1.02–1.72)	1.20 (0.88–1.62)	1.03 (0.72–1.43)	0.89 (0.63–1.28)	0.86 (0.62–1.16)
20	Nagaland	0.82 (0.64–1.05)	0.81 (0.62–1.04)	0.78 (0.58–1.03)	0.74 (0.55–0.98)	0.71 (0.51–0.96)	0.72 (0.51–0.99)	0.69 (0.48–0.96)	0.67 (0.47–0.95)	0.68 (0.46–0.97)	0.60 (0.38–0.89)	0.56 (0.33–0.88)	0.55 (0.30–0.89)	0.48 (0.23–0.89)
21	Odisha	0.09 (0.07–0.12)	0.09 (0.07–0.12)	0.09 (0.07–0.12)	0.08 (0.06–0.11)	0.08 (0.05–0.10)	0.07 (0.05–0.10)	0.07 (0.05–0.10)	0.07 (0.04–0.09)	0.06 (0.04–0.09)	0.05 (0.03–0.08)	0.05 (0.03–0.08)	0.05 (0.02–0.08)	0.04 (0.02–0.07)
22	Punjab	0.18 (0.14–0.24)	0.18 (0.13–0.23)	0.17 (0.13–0.23)	0.16 (0.12–0.22)	0.16 (0.12–0.21)	0.16 (0.12–0.22)	0.16 (0.12–0.23)	0.15 (0.10–0.21)	0.12 (0.08–0.19)	0.09 (0.06–0.15)	0.07 (0.05–0.13)	0.07 (0.05–0.12)	0.07 (0.05–0.10)
23	Rajasthan	0.06 (0.05–0.08)	0.05 (0.04–0.07)	0.05 (0.04–0.07)	0.05 (0.03–0.06)	0.05 (0.03–0.06)	0.04 (0.03–0.06)	0.04 (0.03–0.06)	0.04 (0.03–0.06)	0.04 (0.03–0.06)	0.04 (0.02–0.06)	0.04 (0.02–0.06)	0.03 (0.02–0.06)	0.03 (0.02–0.06)
24	Sikkim	0.05 (0.03–0.08)	0.05 (0.03–0.08)	0.05 (0.03–0.09)	0.05 (0.03–0.08)	0.05 (0.03–0.08)	0.05 (0.02–0.08)	0.04 (0.02–0.08)	0.04 (0.02–0.08)	0.05 (0.02–0.10)	0.04 (0.01–0.10)	0.04 (0.01–0.10)	0.04 (0.01–0.10)	0.03 (0.01–0.09)
25	Tamil Nadu	0.08 (0.06–0.11)	0.07 (0.05–0.10)	0.06 (0.05–0.09)	0.06 (0.04–0.08)	0.05 (0.03–0.08)	0.05 (0.03–0.07)	0.04 (0.02–0.06)	0.04 (0.02–0.06)	0.03 (0.02–0.05)	0.03 (0.02–0.04)	0.03 (0.01–0.04)	0.03 (0.02–0.05)	0.03 (0.02–0.05)
26	Tripura	0.05 (0.04–0.07)	0.06 (0.04–0.08)	0.07 (0.05–0.09)	0.08 (0.05–0.10)	0.09 (0.06–0.12)	0.10 (0.06–0.14)	0.11 (0.07–0.16)	0.13 (0.08–0.18)	0.14 (0.09–0.21)	0.16 (0.09–0.23)	0.17 (0.09–0.26)	0.19 (0.09–0.29)	0.18 (0.07–0.31)
27	Uttarakhand	0.09 (0.07–0.11)	0.08 (0.07–0.10)	0.08 (0.07–0.10)	0.07 (0.06–0.09)	0.07 (0.05–0.09)	0.07 (0.05–0.09)	0.07 (0.05–0.09)	0.06 (0.04–0.09)	0.06 (0.04–0.08)	0.05 (0.03–0.08)	0.05 (0.03–0.08)	0.05 (0.03–0.08)	0.05 (0.03–0.07)
28	Uttar Pradesh	0.06 (0.04–0.08)	0.06 (0.04–0.08)	0.06 (0.04–0.08)	0.05 (0.04–0.07)	0.05 (0.03–0.07)	0.05 (0.04–0.07)	0.05 (0.04–0.07)	0.05 (0.03–0.07)	0.05 (0.03–0.07)	0.05 (0.03–0.07)	0.05 (0.03–0.07)	0.05 (0.02–0.07)	0.04 (0.02–0.07)
29	West Bengal	0.05 (0.04–0.06)	0.04 (0.04–0.05)	0.04 (0.03–0.05)	0.04 (0.03–0.05)	0.03 (0.03–0.04)	0.03 (0.02–0.04)	0.03 (0.02–0.04)	0.03 (0.02–0.04)	0.02 (0.02–0.04)	0.02 (0.01–0.04)	0.02 (0.01–0.04)	0.02 (0.01–0.03)	0.03 (0.02–0.05)
30	A&N Islands	0.12 (0.06–0.21)	0.12 (0.06–0.21)	0.13 (0.06–0.23)	0.14 (0.06–0.25)	0.14 (0.06–0.26)	0.14 (0.06–0.25)	0.12 (0.03–0.27)	0.07 (0.01–0.23)	0.07 (0.01–0.24)	0.06 (0.01–0.26)	0.06 (0.01–0.28)	0.05 (0.01–0.29)	0.04 (0.01–0.28)
31	Chandigarh	0.13 (0.10–0.16)	0.14 (0.10–0.18)	0.16 (0.11–0.22)	0.16 (0.11–0.21)	0.17 (0.11–0.21)	0.17 (0.11–0.22)	0.17 (0.10–0.23)	0.17 (0.09–0.23)	0.17 (0.08–0.24)	0.12 (0.05–0.20)	0.07 (0.03–0.14)	0.07 (0.03–0.16)	0.06 (0.03–0.18)
32	DNH&DD	0.13 (0.07–0.20)	0.13 (0.07–0.20)	0.12 (0.07–0.19)	0.11 (0.06–0.18)	0.11 (0.06–0.18)	0.11 (0.06–0.18)	0.11 (0.06–0.18)	0.10 (0.06–0.18)	0.10 (0.05–0.18)	0.09 (0.05–0.17)	0.08 (0.04–0.17)	0.08 (0.04–0.18)	0.08 (0.03–0.20)
33	Puducherry	0.19 (0.09–0.33)	0.20 (0.10–0.35)	0.08 (0.04–0.13)	0.08 (0.04–0.13)	0.07 (0.04–0.13)	0.07 (0.04–0.12)	0.07 (0.04–0.12)	0.07 (0.04–0.12)	0.07 (0.04–0.12)	0.07 (0.04–0.12)	0.07 (0.04–0.12)	0.06 (0.03–0.12)	0.06 (0.03–0.11)
34	Telangana	0.19 (0.14–0.25)	0.17 (0.12–0.22)	0.15 (0.11–0.20)	0.13 (0.09–0.17)	0.12 (0.09–0.17)	0.11 (0.08–0.15)	0.10 (0.07–0.14)	0.09 (0.06–0.13)	0.07 (0.05–0.11)	0.06 (0.04–0.10)	0.06 (0.04–0.11)	0.06 (0.03–0.10)	0.05 (0.03–0.10)
	India	**0.10 (0.06–0.16)**	**0.09 (0.06–0.15)**	**0.08 (0.05–0.14)**	**0.08 (0.05–0.12)**	**0.07 (0.04–0.11)**	**0.07 (0.04–0.11)**	**0.07 (0.04–0.11)**	**0.06 (0.04–0.1)**	**0.06 (0.04–0.10)**	**0.06 (0.03–0.09)**	**0.05 (0.03–0.09)**	**0.05 (0.03–0.08)**	**0.05 (0.03–0.08)**

Annexure 8: India HIV Estimates of State/UT-Wise AIDS-Related Mortality (per 1,00,000 Population), 2010–2022

S. No.	State/UT	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1	Andhra Pradesh	71.86 (56.42–92.39)	61.96 (47.87–80.89)	54.1 (40.64–71.87)	44.74 (32.96–61.04)	37.98 (27.22–52.62)	36.05 (25.79–50.34)	32.61 (23.39–45.88)	26.84 (19.08–38.44)	22.53 (15.92–33.13)	18.75 (13.27–28.13)	17.19 (11.94–26.55)	17.69 (12.07–27.2)	12.7 (8.79–19.3)
2	Arunachal Pradesh	0.88 (0.54–1.39)	1.12 (0.71–1.71)	1.28 (0.84–1.91)	1.31 (0.84–1.98)	1.47 (0.96–2.18)	1.55 (1.01–2.32)	1.59 (0.96–2.45)	1.99 (1.21–2.97)	1.91 (1.12–2.93)	1.75 (0.97–2.82)	1.97 (1.02–3.24)	2.27 (1.13–3.80)	1.52 (0.86–2.55)
3	Assam	2.09 (1.57–2.80)	2.05 (1.56–2.74)	2.06 (1.58–2.75)	2.04 (1.57–2.71)	2.10 (1.65–2.76)	2.14 (1.68–2.78)	2.05 (1.60–2.68)	2.01 (1.56–2.64)	1.93 (1.50–2.54)	1.70 (1.31–2.25)	1.84 (1.37–2.48)	2.13 (1.61–2.81)	1.73 (1.35–2.26)
4	Bihar	4.12 (3.00–5.39)	4.04 (2.92–5.32)	3.91 (2.80–5.19)	3.63 (2.56–4.88)	3.44 (2.39–4.68)	3.26 (2.24–4.48)	3.05 (2.06–4.24)	2.84 (1.93–3.99)	2.60 (1.75–3.68)	2.18 (1.48–3.08)	2.06 (1.35–2.97)	2.37 (1.48–3.48)	2.14 (1.38–3.08)
5	Chhattisgarh	14.59 (11.32–19.14)	13.63 (10.6–17.81)	12.55 (9.69–16.52)	10.82 (8.25–14.28)	9.21 (6.9–12.19)	8.15 (6.05–10.84)	7.20 (5.25–9.63)	6.56 (4.68–8.88)	6.03 (4.31–8.11)	4.69 (3.29–6.48)	4.25 (2.90–6.04)	4.39 (2.99–6.21)	3.81 (2.61–5.43)
6	Delhi	5.66 (3.37–9.00)	5.68 (3.31–8.87)	5.39 (3.24–8.42)	4.81 (3.01–7.52)	4.50 (2.85–7.09)	3.13 (2.26–4.52)	1.82 (1.36–2.48)	1.66 (1.19–2.34)	1.85 (1.27–2.73)	2.29 (1.51–3.56)	3.30 (2.01–5.87)	4.91 (2.69–9.05)	5.40 (2.85–9.56)
7	Goa	36.71 (23.61–55.33)	31.16 (19.99–47.04)	26.74 (17.26–40.21)	21.02 (13.65–32.04)	16.75 (10.69–25.88)	14.7 (9.46–22.79)	12.49 (8.20–19.39)	9.92 (6.76–15.44)	7.85 (5.31–12.38)	5.99 (4.10–9.67)	4.89 (3.31–8.15)	4.92 (3.23–8.36)	3.37 (2.30–5.39)
8	Gujarat	5.04 (3.63–7.24)	4.01 (2.85–5.86)	3.21 (2.29–4.78)	2.74 (1.99–4.11)	2.38 (1.74–3.64)	2.37 (1.70–3.65)	2.17 (1.56–3.34)	1.87 (1.35–2.85)	1.63 (1.22–2.39)	1.29 (1.00–1.78)	1.13 (0.85–1.61)	1.28 (0.92–1.96)	1.22 (0.87–1.83)
9	Himachal Pradesh	5.02 (2.91–8.17)	3.83 (2.15–6.41)	3.38 (1.86–5.60)	3.13 (1.73–5.14)	2.90 (1.61–4.69)	1.47 (0.95–2.15)	0.56 (0.38–0.77)	0.39 (0.26–0.57)	0.43 (0.27–0.71)	0.67 (0.4–1.33)	1.00 (0.51–2.04)	1.31 (0.59–2.53)	1.52 (0.74–2.68)
10	Haryana	8.36 (5.58–12.27)	8.24 (5.51–11.79)	7.89 (5.33–11.21)	7.13 (4.76–10.11)	6.63 (4.44–9.41)	7.46 (5.21–10.27)	7.44 (5.40–10.02)	6.50 (4.64–8.83)	7.68 (5.65–10.12)	4.14 (3.14–5.46)	2.12 (1.55–2.94)	1.96 (1.36–2.89)	1.26 (0.92–1.82)
11	Jharkhand	1.97 (1.12–3.49)	1.71 (0.93–3.16)	1.59 (0.84–2.92)	1.60 (0.83–2.97)	1.53 (0.79–2.79)	1.34 (0.70–2.48)	1.32 (0.65–2.46)	1.32 (0.63–2.43)	1.27 (0.62–2.29)	0.97 (0.50–1.78)	0.85 (0.43–1.65)	0.97 (0.45–1.91)	0.79 (0.40–1.54)
12	Jammu & Kashmir and Ladakh	1.20 (0.68–2.45)	1.11 (0.60–2.25)	0.98 (0.52–2.04)	0.99 (0.52–2.07)	0.95 (0.47–2.00))	0.97 (0.47–2.02)	1.01 (0.47–2.03)	1.06 (0.48–2.08)	1.11 (0.48–2.16)	0.99 (0.44–1.99)	0.95 (0.40–2.05)	1.14 (0.42–2.44)	0.94 (0.38–2.11)
13	Karnataka	49.24 (37.58–62.80)	40.86 (30.13–53.32)	34.35 (24.44–46.08)	30.36 (21.14–41.34)	27.97 (19.32–38.23)	25.41 (17.47–34.73)	22.5 (15.47–30.95)	19.74 (13.64–27.34)	15.85 (10.82–22.28)	11.29 (7.74–16.27)	10.06 (6.69–14.93)	11.35 (7.38–16.73)	9.82 (6.57–14.19)
14	Kerala	2.71 (1.71–4.00)	2.41 (1.47–3.63)	2.10 (1.22–3.27)	1.85 (1.02–2.96)	1.76 (0.94–2.83)	1.61 (0.85–2.69)	1.44 (0.76–2.45)	1.21 (0.66–2.08)	0.84 (0.52–1.39)	0.51 (0.34–0.78)	0.39 (0.26–0.60)	0.38 (0.25–0.63)	0.36 (0.23–0.59)
15	Meghalaya	2.34 (1.42–3.44)	2.45 (1.49–3.62)	2.76 (1.66–4.08)	2.82 (1.73–4.09)	2.58 (1.58–3.82)	2.58 (1.62–3.82)	2.45 (1.58–3.64)	2.28 (1.52–3.32)	2.04 (1.41–2.91)	1.78 (1.25–2.50)	1.98 (1.37–2.82)	2.10 (1.41–3.03)	1.99 (1.37–2.79)
16	Maharashtra	32.78 (25.54–43.00)	27.32 (20.76–36.47)	22.5 (16.74–30.84)	16.53 (11.87–23.39)	14.07 (9.69–20.60)	14.65 (10.11–21.45)	12.87 (9.00–18.95)	11.46 (8.02–16.78)	8.38 (6.00–12.35)	5.05 (3.58–7.58)	4.36 (2.96–6.91)	4.99 (3.29–8.32)	5.31 (3.43–8.98)
17	Manipur	69 (50.43–98.59)	60.07 (43.02–85.8)	65.66 (47.73–91.68)	60.5 (44.83–82.06)	56.58 (41.88–75.11)	52.91 (39.74–69.26)	44.77 (33.4–59.55)	39.37 (29.32–52.21)	30.74 (22.81–41.33)	25.09 (18.41–34.41)	22.24 (16.01–31.32)	22.27 (15.6–31.88)	18.24 (13.05–25.93)
18	Madhya Pradesh	6.12 (4.80–7.70)	5.45 (4.23–6.83)	4.93 (3.81–6.20)	4.44 (3.44–5.57)	3.99 (3.10–5.04)	3.59 (2.81–4.56)	3.08 (2.41–3.95)	2.76 (2.14–3.56)	2.40 (1.86–3.10)	1.65 (1.30–2.14)	1.32 (1.02–1.77)	1.34 (1.00–1.82)	0.96 (0.74–1.28)
19	Mizoram	55.45 (39.29–75.05)	51.91 (36.33–69.9)	50.25 (34.87–67.64)	44.95 (31.47–60.59)	37.59 (26.44–51.55)	35.11 (24.52–48.51)	33.37 (23.16–46.28)	25.22 (18.72–34.00)	18.11 (13.85–23.87)	15.37 (11.75–20.11)	12.97 (9.79–16.95)	10.89 (7.97–14.48)	9.24 (6.6–12.55)
20	Nagaland	42.07 (31.06–56.78)	37.79 (26.93–52.26)	34.54 (23.9–48.11)	31.45 (21.47–44.36)	33.15 (21.97–46.85)	37.38 (25.57–51.72)	31.67 (21.26–44.74)	28.2 (18.46–40.86)	24.65 (16.07–36.6)	17.25 (11.59–25.95)	13.28 (8.68–20.93)	14.17 (8.44–23.77)	12.07 (7.38–19.87)
21	Odisha	6.68 (4.28–9.45)	6.39 (4.10–9.09)	5.76 (3.66–8.32)	5.15 (3.23–7.56)	4.78 (2.91–7.06)	4.58 (2.80–6.73)	4.32 (2.62–6.40)	4.15 (2.50–6.16)	4.05 (2.46–5.95)	3.52 (2.10–5.26)	3.33 (1.92–5.06)	3.74 (2.16–5.61)	3.31 (1.92–5.01)
22	Punjab	13.26 (8.16–20.33)	12.95 (8.07–19.8)	12.29 (7.73–18.53)	11.01 (6.74–16.75)	10.07 (6.05–15.37)	9.78 (5.77–14.71)	9.15 (5.42–13.64)	7.48 (4.38–11.29)	5.37 (3.32–8.16)	3.36 (2.23–4.91)	2.61 (1.70–3.88)	2.37 (1.50–3.64)	2.06 (1.26–3.10)
23	Rajasthan	2.42 (1.44–3.92)	2.02 (1.21–3.36)	1.74 (1.04–2.93)	1.53 (0.94–2.55)	1.35 (0.82–2.24)	1.23 (0.74–2.05)	1.06 (0.65–1.76)	0.98 (0.61–1.66)	0.88 (0.55–1.47)	0.64 (0.43–1.02)	0.53 (0.36–0.82)	0.54 (0.36–0.86)	0.44 (0.30–0.68)
24	Sikkim	0.68 (0.30–7.45)	0.56 (0.25–5.75)	0.72 (0.30–5.86)	0.74 (0.29–4.95)	0.61 (0.26–4.09)	0.62 (0.27–3.73)	0.63 (0.25–3.21)	0.71 (0.29–3.00)	0.72 (0.31–2.64)	0.62 (0.29–1.91)	0.54 (0.25–1.52)	0.53 (0.24–1.38)	0.41 (0.17–0.93)
25	Tamil Nadu	13.68 (9.17–19.6)	11.02 (7.08–16.21)	9.47 (5.91–14.34)	8.14 (5.07–12.49)	6.95 (4.27–10.88)	6.30 (3.84–10.07)	5.28 (3.28–8.46)	4.30 (2.76–6.81)	3.61 (2.32–5.61)	2.84 (1.89–4.33)	2.61 (1.72–4.14)	2.92 (1.84–4.92)	2.64 (1.67–4.26)
26	Tripura	0.36 (0.23–0.52)	0.35 (0.23–0.52)	0.33 (0.20–0.50)	0.34 (0.21–0.54)	0.35 (0.21–0.55)	0.46 (0.24–0.80)	0.75 (0.38–1.25)	0.52 (0.31–0.84)	0.52 (0.28–0.92)	0.52 (0.28–0.91)	0.48 (0.25–0.86)	0.47 (0.24–0.84)	0.46 (0.24–0.73)
27	Uttarakhand	5.09 (3.06–8.13)	4.78 (2.88–7.57)	4.63 (2.85–7.28)	4.34 (2.71–6.79)	4.23 (2.70–6.47)	4.32 (2.84–6.38)	4.21 (2.83–6.08)	4.03 (2.76–5.69)	3.75 (2.63–5.21)	3.13 (2.16–4.34)	3.13 (2.12–4.31)	3.85 (2.66–5.20)	2.86 (1.98–3.87)
28	Uttar Pradesh	3.30 (2.12–4.49)	3.07 (1.93–4.23)	2.82 (1.73–3.96)	2.64 (1.60–3.77)	2.49 (1.48–3.65)	2.31 (1.35–3.48)	2.03 (1.17–3.13)	1.82 (1.01–2.84)	1.66 (0.92–2.61)	1.25 (0.71–2.02)	1.03 (0.58–1.73)	1.13 (0.60–2.00)	0.96 (0.55–1.71)
29	West Bengal	4.91 (3.30–6.94)	4.21 (2.75–6.08)	3.70 (2.38–5.40)	3.23 (2.07–4.73)	2.77 (1.75–4.12)	2.38 (1.49–3.58)	1.93 (1.21–2.92)	1.67 (1.03–2.58)	1.38 (0.88–2.12)	0.88 (0.61–1.34)	0.80 (0.54–1.25)	0.95 (0.61–1.51)	0.83 (0.56–1.26)
30	A&N Islands	5.86 (3.08–10.38)	6.21 (3.28–11.17)	6.6 (3.44–11.66)	6.91 (3.56–12.07)	7.24 (3.7–12.54)	7.55 (3.81–13.02)	4.25 (1.65–8.71)	2.39 (0.67–6.00)	3.15 (0.56–7.84)	4.10 (0.66–9.49)	4.78 (0.75–10.94)	4.82 (0.77–11.55)	3.26 (0.65–9.69)
31	Chandigarh	3.43 (2.14–5.60)	3.66 (2.34–5.87)	3.26 (2.14–5.33)	3.09 (2.02–5.20)	3.27 (2.09–5.55)	3.32 (2.09–5.64)	3.25 (2.04–5.46)	2.85 (1.86–4.71)	2.59 (1.70–4.26)	1.66 (1.19–2.36)	0.82 (0.58–1.11)	0.84 (0.57–1.33)	1.22 (0.76–2.33)
32	DNH&DD	5.59 (1.82–9.02)	5.40 (1.62–8.84)	4.28 (1.20–7.32)	3.85 (1.02–7.03)	3.61 (0.92–6.80)	3.31 (0.86–6.49)	2.28 (0.76–4.67)	1.38 (0.62–2.70)	1.05 (0.51–2.04)	0.94 (0.45–1.92)	0.86 (0.39–1.75)	0.89 (0.40–2.10)	1.37 (0.50–4.00)
33	Puducherry	2.59 (1.20–5.32)	2.65 (1.11–5.78)	3.70 (1.23–8.22)	4.15 (1.30–8.86)	4.89 (1.32–10.31)	6.33 (1.52–12.69)	6.40 (1.71–12.60)	6.62 (1.77–12.91)	7.84 (2.23–14.42)	5.47 (1.86–10.68)	4.09 (1.45–8.69)	5.16 (1.46–10.62)	4.64 (1.49–9.56)
34	Telangana	46.34 (35.19–59.83)	41.05 (30.64–53.71)	36.33 (26.69–48.24)	30.94 (22.34–41.61)	26.94 (19.11–36.6)	25.00 (17.6–34.35)	22.57 (15.86–31.37)	21.15 (14.87–29.46)	12.09 (8.74–17.05)	5.47 (3.93–7.92)	5.34 (3.49–8.56)	5.91 (3.64–9.74)	6.27 (3.67–10.48)
	India	**14.34 (9.33–22.43)**	**12.39 (8.06–19.37)**	**10.79 (7.03–16.88)**	**9.10 (5.92–14.22)**	**8.03 (5.23–12.56)**	**7.61 (4.95–11.9)**	**6.76 (4.40–10.57)**	**5.92 (3.85–9.25)**	**4.77 (3.11–7.46)**	**3.41 (2.22–5.34)**	**3.04 (1.98–4.75)**	**3.32 (2.16–5.2)**	**2.90 (1.89–4.53)**

Annexure 9: India HIV Estimates 2022: State/UT-Wise Factsheets

India

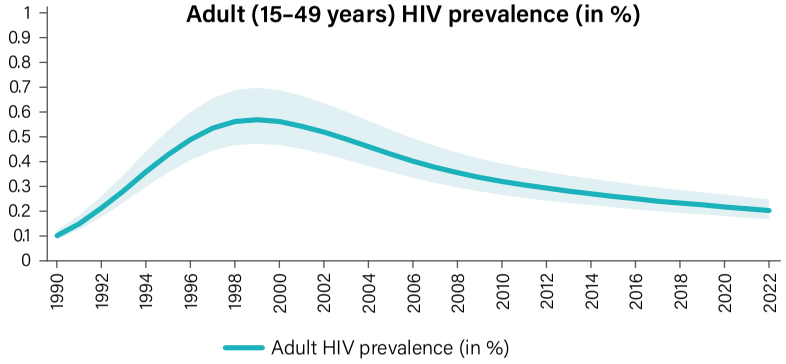
Adult (15–49 years) prevalence (in %)

0.19
Female
(0.16–0.23)

0.22
Male
(0.18–0.27)

Total
0.20
(0.17–0.25)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV (in lakhs)

23.99
Adult
(15+ years)
(20.29–28.70)

10.86
Female
(15+ years)
(9.19–12.94)

0.68
Children
(<15 years)
(0.55–0.85)

Total
24.67
(20.84–29.52)

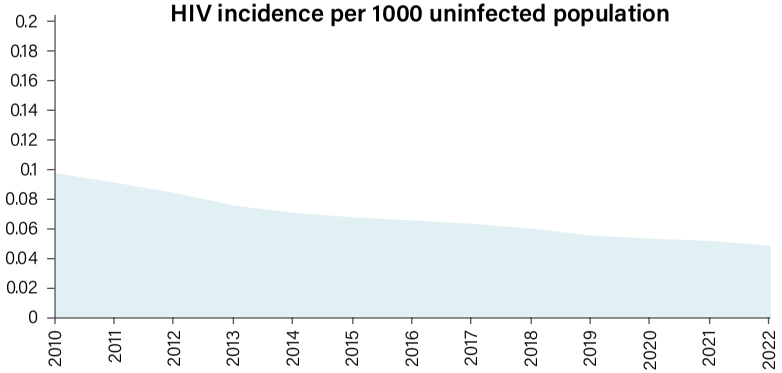
HIV incidence per 1000 uninfected population

0.04
Female
(0.03–0.07)

0.05
Male
(0.03–0.09)

Total
0.05
(0.03–0.08)

HIV incidence per 1000 uninfected population



New HIV infections (in thousands)

62.28
Adult
(15+ years)
(38.71–100.63)

26.11
Female
(15+ years)
(16.19–42.06)

4.13
Children
(<15 years)
(2.53–6.50)

Total
66.41
(41.51–106.94)

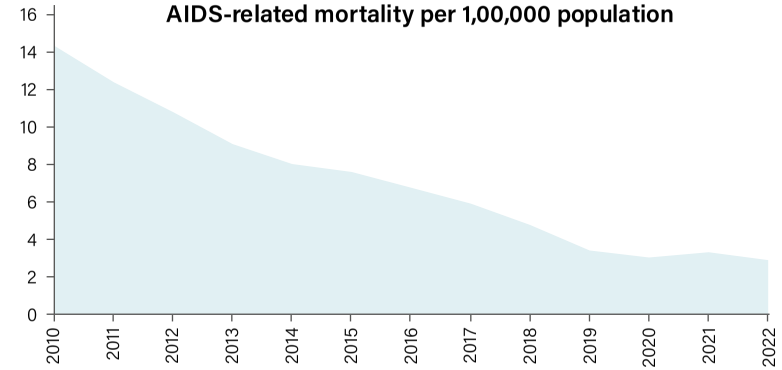
AIDS-related mortality per 1,00,000 population

1.87
Female
(1.02–3.29)

3.87
Male
(2.63–5.79)

Total
2.90
(1.89–4.53)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths (in thousands)

37.44
Adult
(15+ years)
(24.49–58.46)

11.38
Female
(15+ years)
(6.18–20.14)

2.18
Children
(<15 years)
(1.13–3.90)

Total
39.63
(25.79–61.95)

Andaman and Nicobar Islands

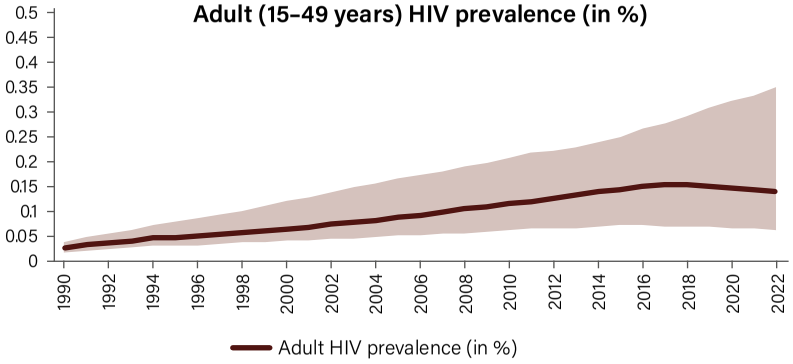
Adult (15–49 years) prevalence (in %)

0.12
Female
(0.05–0.30)

0.16
Male
(0.07–0.41)

Total
0.14
(0.06–0.35)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

435
Adult
(15+ years)
(194–1067)

174
Female
(15+ years)
(76–408)

16
Children
(<15 years)
(7–34)

Total
452
(201-1103)

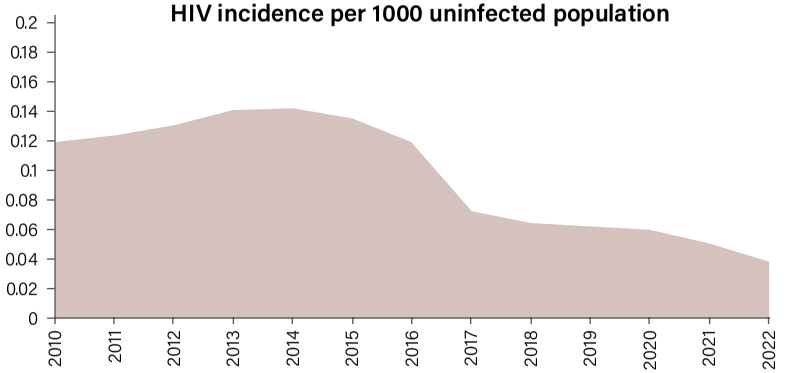
HIV incidence per 1000 uninfected population

0.03
Female
(0.01–0.22)

0.05
Male
(0.01–0.33)

Total
0.04
(0.01–0.28)

HIV incidence per 1000 uninfected population



New HIV infections

15
Adult
(15+ years)
(4–108)

6
Female
(15+ years)
(2–40)

1
Children
(<15 years)
(0–5)

Total
16
(4–113)

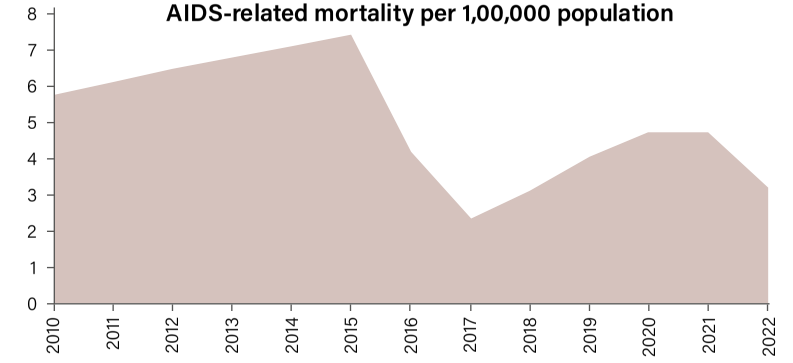
AIDS-related mortality per 1,00,000 population

2.22
Female
(0.13–7.18)

4.18
Male
(0.97–12.11)

Total
3.26
(0.65–9.69)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

13
Adult
(15+ years)
(3–37)

4
Female
(15+ years)
(1–13)

0
Children
(<15 years)
(0–3)

Total
13
(3–39)

Andhra Pradesh

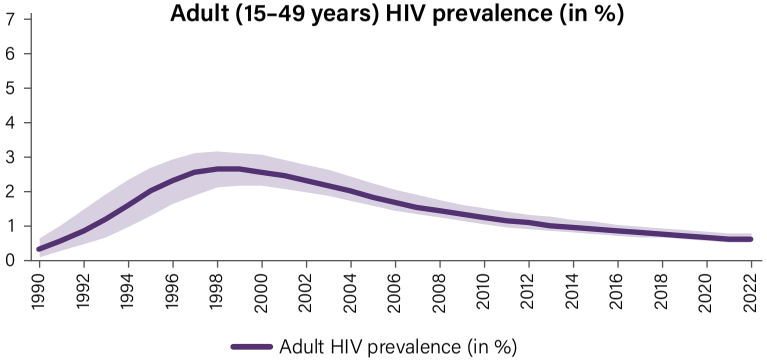
Adult (15–49 years) prevalence (in %)

0.62
Female
(0.53–0.77)

0.65
Male
(0.53–0.82)

Total
0.64
(0.54–0.80)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

3,15,671
Adult
(15+ years)
(2,73,682–3,79,700)

1,55,749
Female
(15+ years)
(1,35,536–1,85,243)

5,868
Children
(<15 years)
(4,708–7,698)

Total
3,21,539
(2,78,665–3,87,302)

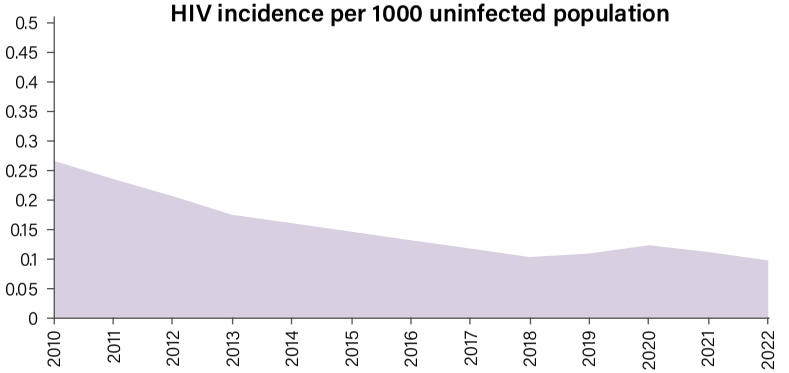
HIV incidence per 1000 uninfected population

0.09
Female
(0.05–0.15)

0.11
Male
(0.07–0.19)

Total
0.10
(0.06–0.17)

HIV incidence per 1000 uninfected population



New HIV infections

4,963
Adult
(15+ years)
(3,120–8,233)

2,150
Female
(15+ years)
(1,318–3,650)

276
Children
(<15 years)
(149–477)

Total
5,239
(3,308–8,655)

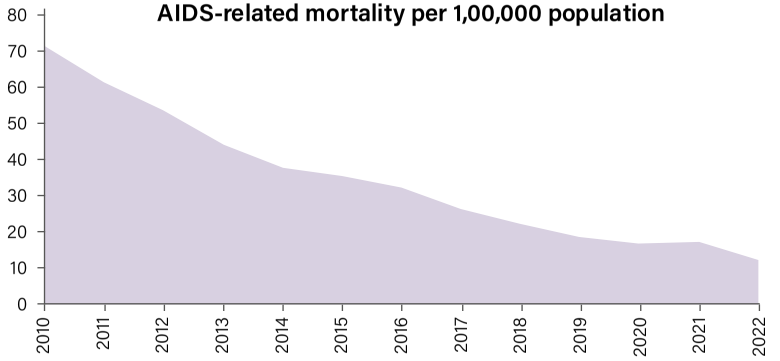
AIDS-related mortality per 1,00,000 population

6.74
Female
(3.93–11.45)

18.66
Male
(13.61–27.54)

Total
12.7
(8.79–19.3)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

6,538
Adult
(15+ years)
(4,553–9,894)

1,697
Female
(15+ years)
(1,010–2,881)

170
Children
(<15 years)
(53–343)

Total
6,708
(4,641-10,194)

Arunachal Pradesh

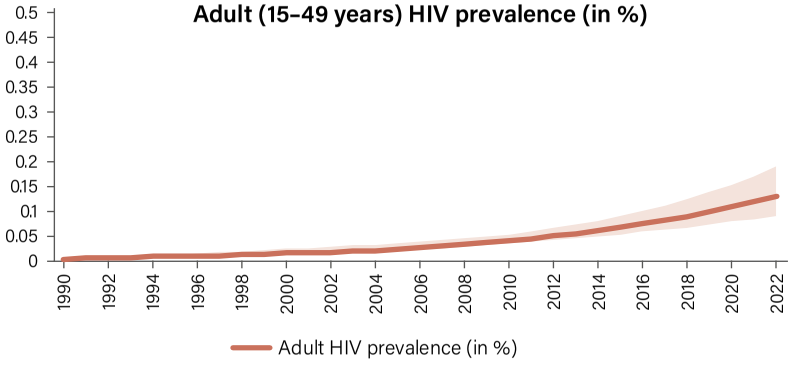
Adult (15–49 years) prevalence (in %)

0.11
Female
(0.07–0.16)

0.15
Male
(0.10–0.22)

Total
0.13
(0.09–0.19)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

1,318
Adult
(15+ years)
(863–1,918)

527
Female
(15+ years)
(354–763)

54
Children
(<15 years)
(35–80)

Total
1,372
(898–1,995)

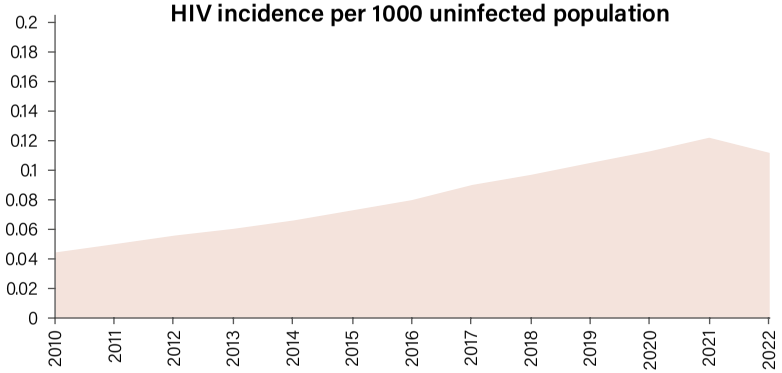
HIV incidence per 1000 uninfected population

0.09
Female
(0.05–0.16)

0.13
Male
(0.07–0.22)

Total
0.11
(0.06–0.19)

HIV incidence per 1000 uninfected population



New HIV infections

167
Adult
(15+ years)
(88–285)

67
Female
(15+ years)
(34–113)

6
Children
(<15 years)
(3–12)

Total
173
(91–297)

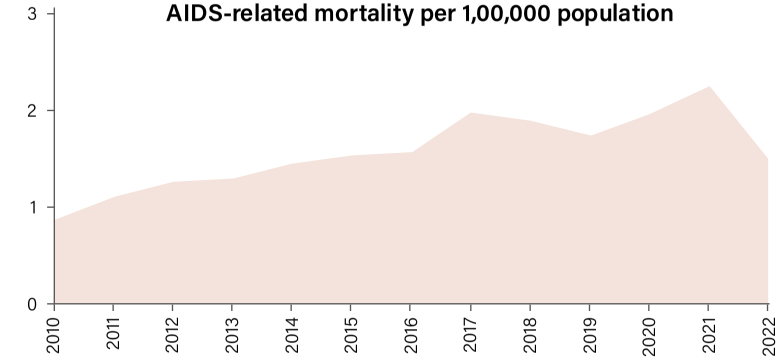
AIDS-related mortality per 1,00,000 population

1.83
Female
(0.88–3.21)

1.24
Male
(0.77–1.94)

Total
1.52
(0.86–2.55)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

18
Adult
(15+ years)
(10–30)

11
Female
(15+ years)
(5–19)

5
Children
(<15 years)
(3–9)

Total
23
(13–39)

Assam

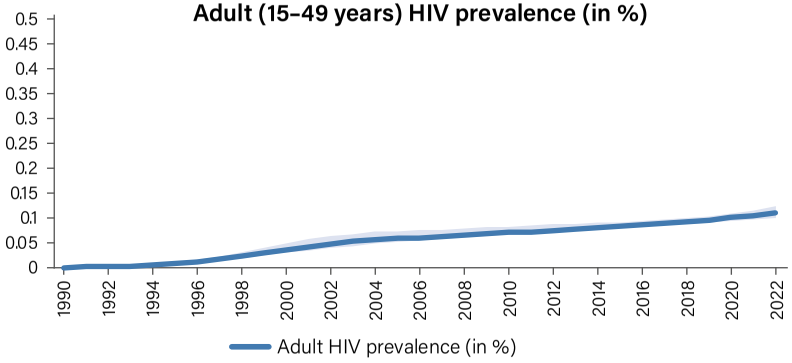
Adult (15–49 years) prevalence (in %)

0.10
Female
(0.09–0.12)

0.12
Male
(0.10–0.13)

Total
0.11
(0.10–0.12)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

29,058
Adult
(15+ years)
(25,541–33,550)

13,187
Female
(15+ years)
(11,544–15,211)

1,009
Children
(<15 years)
(876–1,135)

Total
30,067
(26,405–34,660)

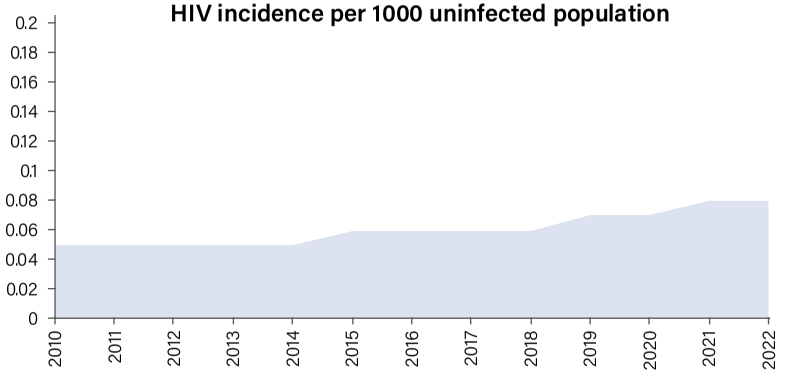
HIV incidence per 1000 uninfected population

0.08
Female
(0.06–0.10)

0.08
Male
(0.06–0.11)

Total
0.08
(0.06–0.11)

HIV incidence per 1000 uninfected population



New HIV infections

2,679
Adult
(15+ years)
(2,053–3,564)

1,281
Female
(15+ years)
(959–1,704)

154
Children
(<15 years)
(117–197)

Total
2,832
(2,179–3,761)

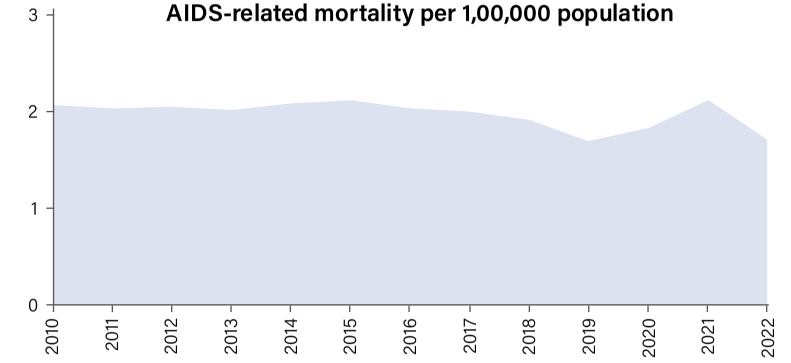
AIDS-related mortality per 1,00,000 population

2.1
Female
(1.53–2.78)

1.37
Male
(1.09–1.8)

Total
1.73
(1.35–2.26)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

525
Adult
(15+ years)
(406–698)

322
Female
(15+ years)
(228–434)

84
Children
(<15 years)
(65–105)

Total
609
(475–794)

Bihar

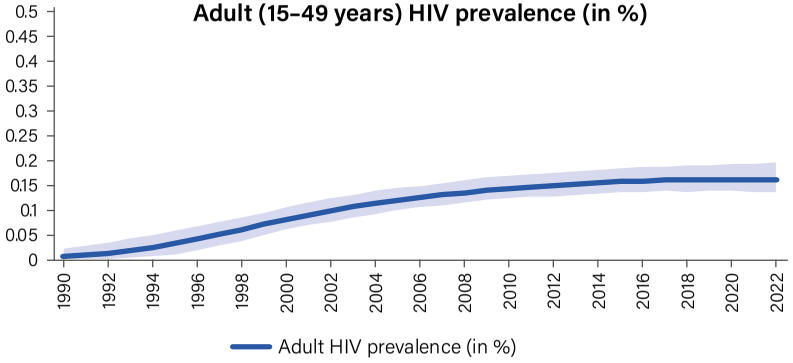
Adult (15–49 years) prevalence (in %)

0.15
Female
(0.12-0.17)

0.19
Male
(0.15–0.22)

Total
0.17
(0.14–0.20)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

1,48,088
Adult
(15+ years)
(1,20,824–1,75,348)

62,186
Female
(15+ years)
(51,174–73,389)

8,003
Children
(<15 years)
(6,537–9,464)

Total
1,56,090
(1,27,322–1,84,363)

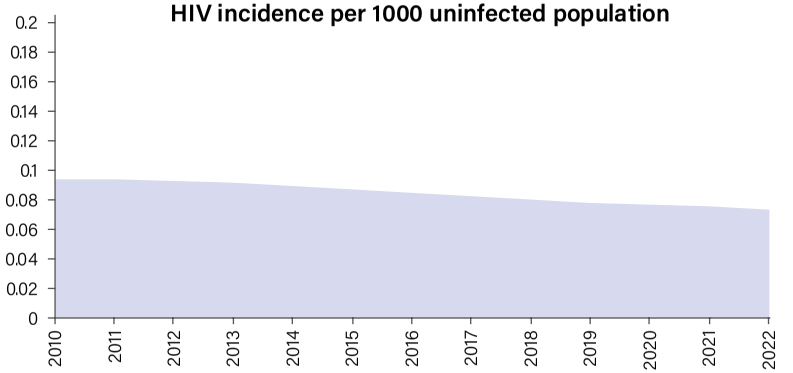
HIV incidence per 1000 uninfected population

0.06
Female
(0.04–0.09)

0.08
Male
(0.06–0.13)

Total
0.07
(0.05–0.11)

HIV incidence per 1000 uninfected population



New HIV infections

8,245
Adult
(15+ years)
(5,564–12,529)

3,320
Female
(15+ years)
(2,213–4,989)

932
Children
(<15 years)
(680–1,217)

Total
9,177
(6,288–13,691)

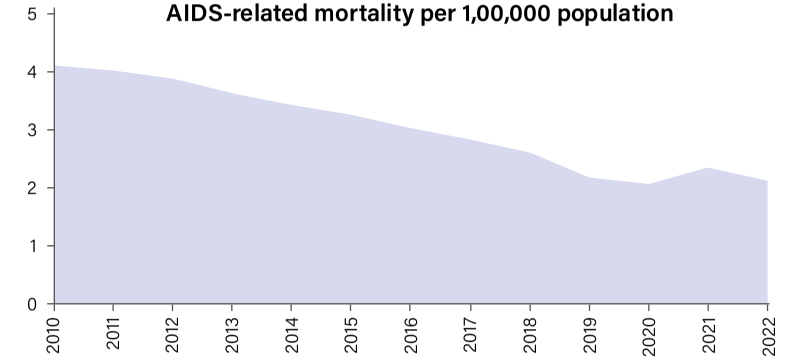
AIDS-related mortality per 1,00,000 population

1.43
Female
(0.87–2.26)

2.79
Male
(1.83–4)

Total
2.14
(1.38–3.08)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

2,114
Adult
(15+ years)
(1,341–3,149)

598
Female
(15+ years)
(329–1,006)

535
Children
(<15 years)
(366–705)

Total
2,649
(1,710–3,812)

Chandigarh

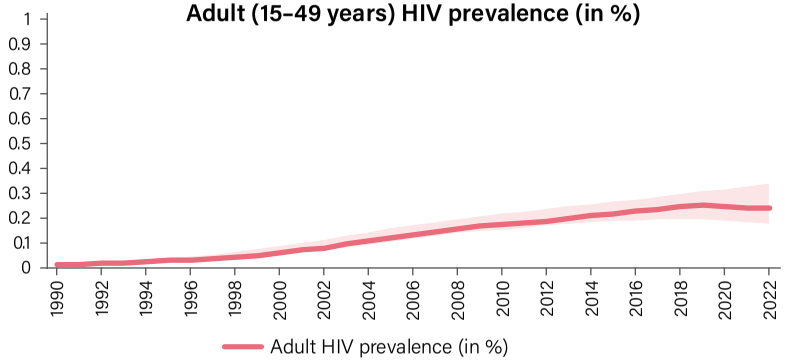
Adult (15–49 years) prevalence (in %)

0.18
Female
(0.13–0.24)

0.29
Male
(0.21–0.42)

Total
0.24
(0.17–0.34)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

2,336
Adult
(15+ years)
(1,661–3,207)

779
Female
(15+ years)
(573–1,059)

51
Children
(<15 years)
(41–63)

Total
2,387
(1,703–3,274)

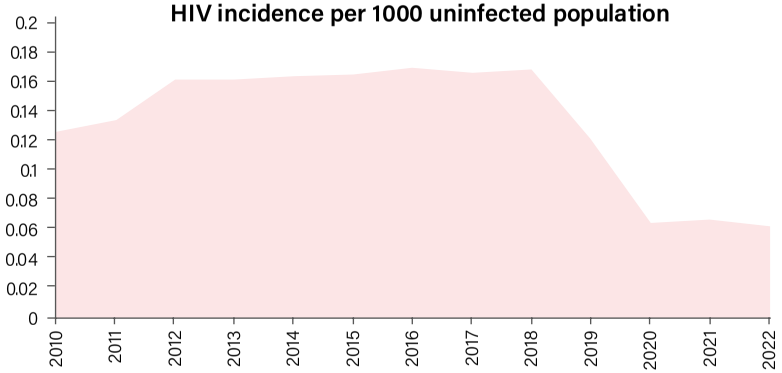
HIV incidence per 1000 uninfected population

0.04
Female
(0.02–0.12)

0.08
Male
(0.04–0.22)

Total
0.06
(0.03–0.18)

HIV incidence per 1000 uninfected population



New HIV infections

74
Adult
(15+ years)
(35–208)

23
Female
(15+ years)
(11–65)

2
Children
(<15 years)
(1–4)

Total
77
(36–212)

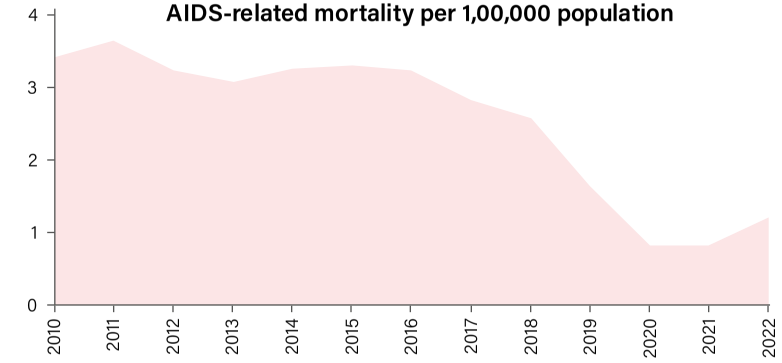
AIDS-related mortality per 1,00,000 population

0.73
Female
(0.34–1.62)

1.64
Male
(1.03–2.98)

Total
1.22
(0.76–2.33)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

14
Adult
(15+ years)
(9–27)

4
Female
(15+ years)
(2–8)

1
Children
(<15 years)
(0–2)

Total
15
(9–28)

Chhattisgarh

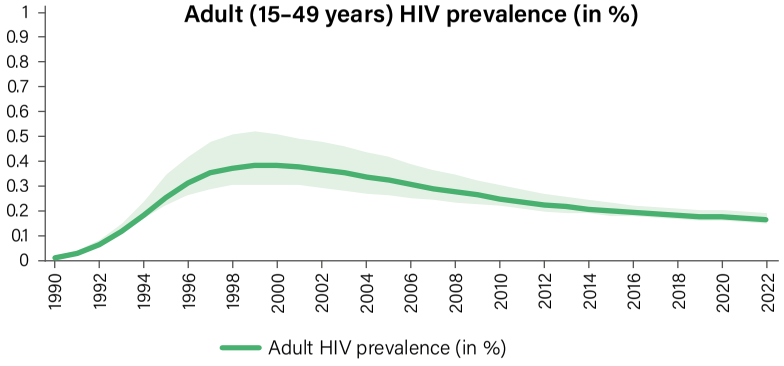
Adult (15–49 years) prevalence (in %)

0.16
Female
(0.14–0.19)

0.18
Male
(0.15–0.21)

Total
0.17
(0.15–0.20)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

38,999
Adult
(15+ years)
(33,416–45,290)

18,285
Female
(15+ years)
(15,682–21,353)

1,793
Children
(<15 years)
(1,460–2,146)

Total
40,792
(34,883–47,363)

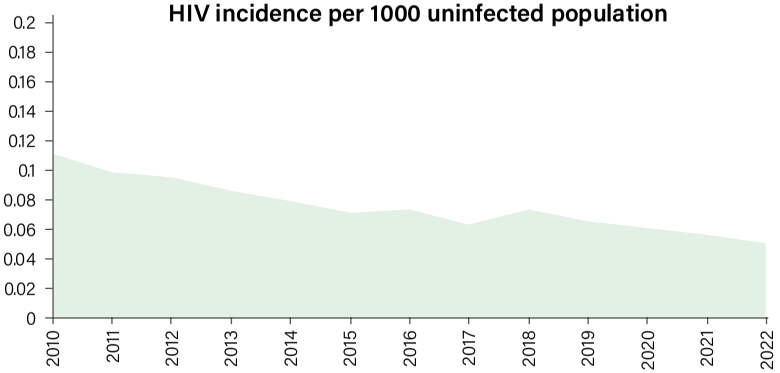
HIV incidence per 1000 uninfected population

0.05
Female
(0.03–0.07)

0.05
Male
(0.03–0.07)

Total
0.05
(0.03–0.07)

HIV incidence per 1000 uninfected population



New HIV infections

1,407
Adult
(15+ years)
(929–2,029)

704
Female
(15+ years)
(461–1,016)

127
Children
(<15 years)
(79–186)

Total
1,535
(1,013–2,206)

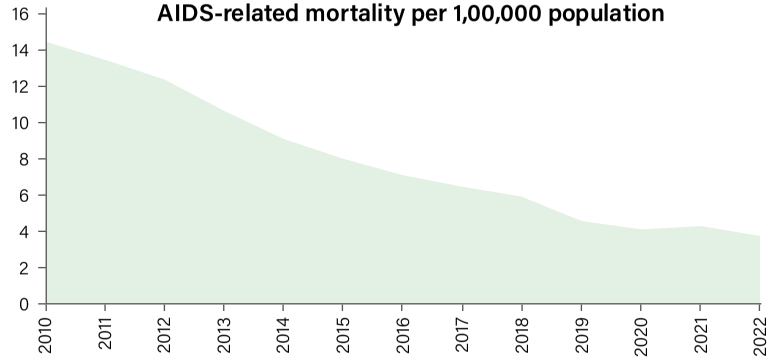
AIDS-related mortality per 1,00,000 population

3.71
Female
(2.37–5.36)

3.9
Male
(2.76–5.54)

Total
3.81
(2.61–5.43)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

1,042
Adult
(15+ years)
(716–1,495)

507
Female
(15+ years)
(321–737)

85
Children
(<15 years)
(51–121)

Total
1,128
(773–1,608)

Dadra and Nagar Haveli & Daman and Diu

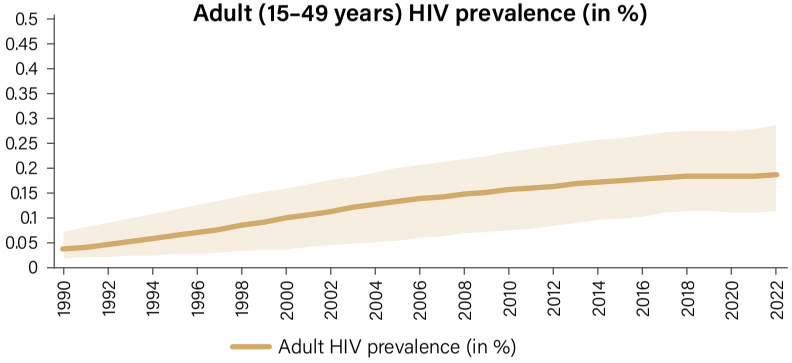
Adult (15–49 years) prevalence (in %)

0.16
Female
(0.09–0.24)

0.20
Male
(0.12–0.31)

Total
0.19
(0.11–0.29)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

1,666
Adult
(15+ years)
(987–2,489)

452
Female
(15+ years)
(272–667)

34
Children
(<15 years)
(19–52)

Total
1,699
(1,004–2,539)

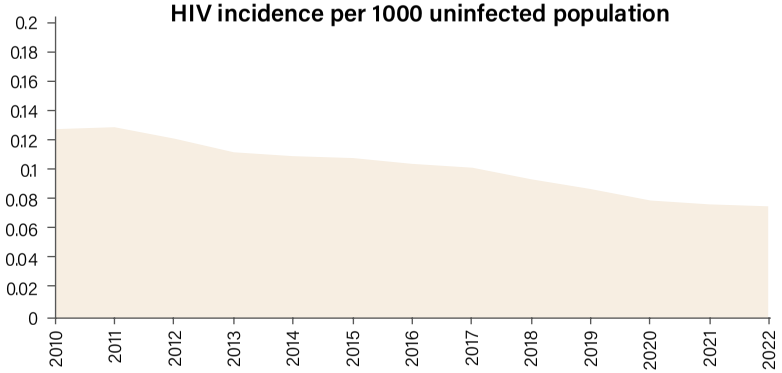
HIV incidence per 1000 uninfected population

0.06
Female
(0.03–0.16)

0.09
Male
(0.04–0.24)

Total
0.08
(0.03–0.2)

HIV incidence per 1000 uninfected population



New HIV infections

82
Adult
(15+ years)
(35–221)

22
Female
(15+ years)
(10–59)

3
Children
(<15 years)
(1–7)

Total
85
(36–227)

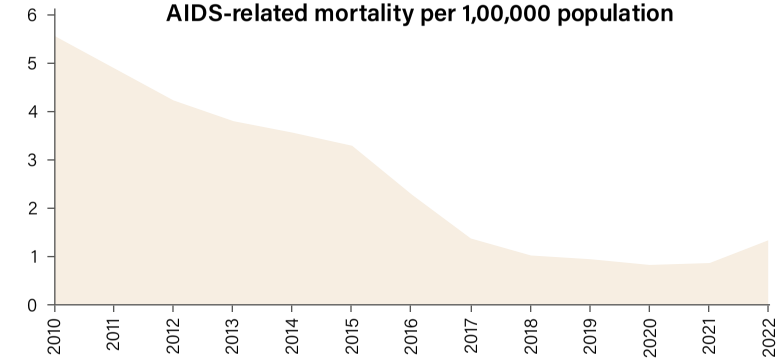
AIDS-related mortality per 1,00,000 population

1.36
Female
(0.36–4.27)

1.38
Male
(0.53–3.9)

Total
1.37
(0.5–4)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

12
Adult
(15+ years)
(4–40)

4
Female
(15+ years)
(1–15)

3
Children
(<15 years)
(1–5)

Total
15
(6–45)

Delhi

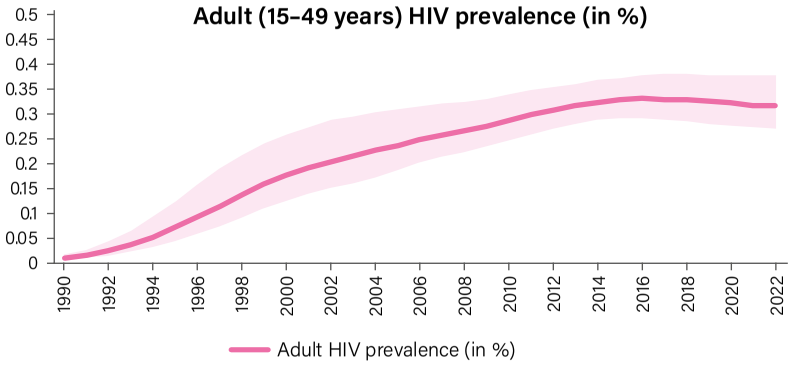
Adult (15–49 years) prevalence (in %)

0.26
Female
(0.22–0.31)

0.37
Male
(0.31–0.44)

Total
0.32
(0.27–0.38)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

57,195
Adult
(15+ years)
(48,305–68,547)

21,548
Female
(15+ years)
(18,132–25,614)

1,368
Children
(<15 years)
(1,145–1,629)

Total
58,563
(49,451–70,141)

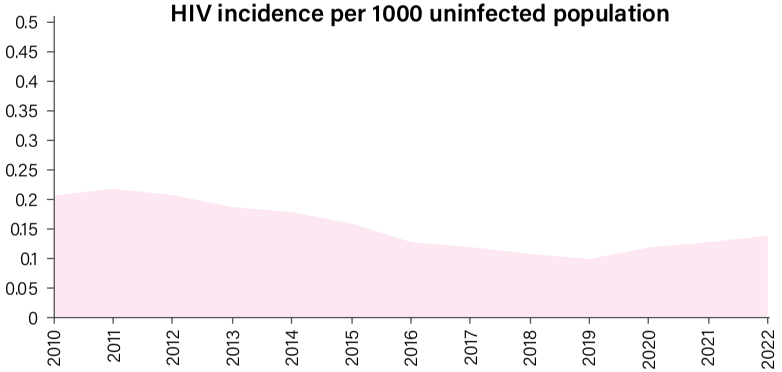
HIV incidence per 1000 uninfected population

0.12
Female
(0.09–0.18)

0.16
Male
(0.11–0.24)

Total
0.14
(0.1–0.21)

HIV incidence per 1000 uninfected population



New HIV infections

2,872
Adult
(15+ years)
(2,073–4,259)

1,145
Female
(15+ years)
(826–1,698)

89
Children
(<15 years)
(55–138)

Total
2,961
(2,143–4,380)

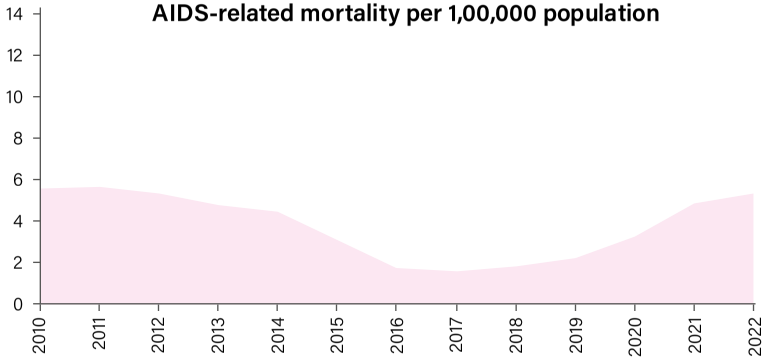
AIDS-related mortality per 1,00,000 population

5.39
Female
(1.98–10.54)

5.42
Male
(3.26–9.26)

Total
5.4
(2.85–9.56)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

1,055
Adult
(15+ years)
(565–1,891)

492
Female
(15+ years)
(178–983)

66
Children
(<15 years)
(28–101)

Total
1,121
(590–1,983)

Goa

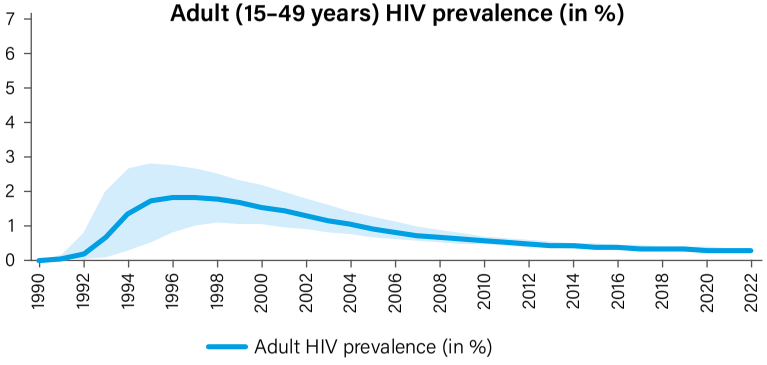
Adult (15–49 years) prevalence (in %)

0.29
Female
(0.24–0.36)

0.31
Male
(0.26–0.40)

Total
0.30
(0.26–0.38)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

4,496
Adult
(15+ years)
(3,885–5,421)

2,113
Female
(15+ years)
(1,808–2,554)

95
Children
(<15 years)
(74–132)

Total
4,591
(3,960–5,554)

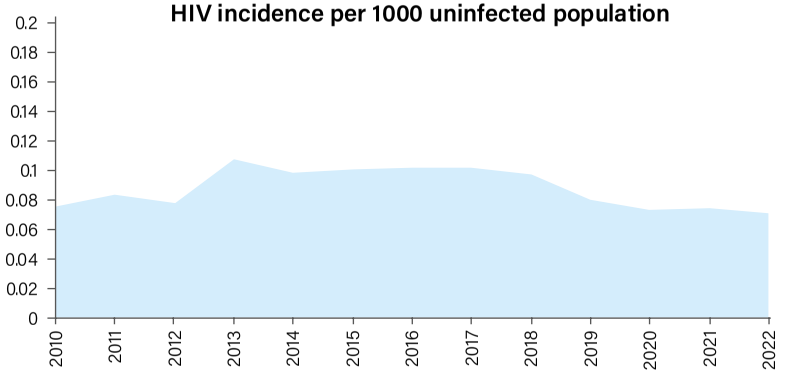
HIV incidence per 1000 uninfected population

0.07
Female
(0.05–0.10)

0.07
Male
(0.05–0.11)

Total
0.07
(0.05–0.11)

HIV incidence per 1000 uninfected population



New HIV infections

107
Adult
(15+ years)
(78–159)

52
Female
(15+ years)
(37–76)

5
Children
(<15 years)
(3–8)

Total
112
(81–166)

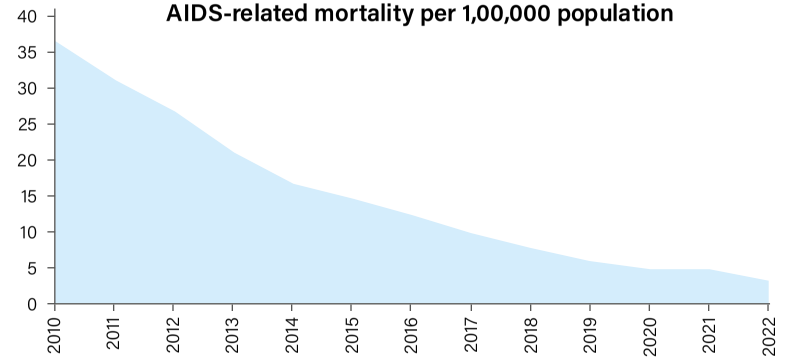
AIDS-related mortality per 1,00,000 population

2.07
Female
(1.1–3.79)

4.65
Male
(3.37–6.93)

Total
3.37
(2.3–5.39)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

48
Adult
(15+ years)
(33–78)

14
Female
(15+ years)
(7–26)

4
Children
(<15 years)
(2–6)

Total
53
(36–84)

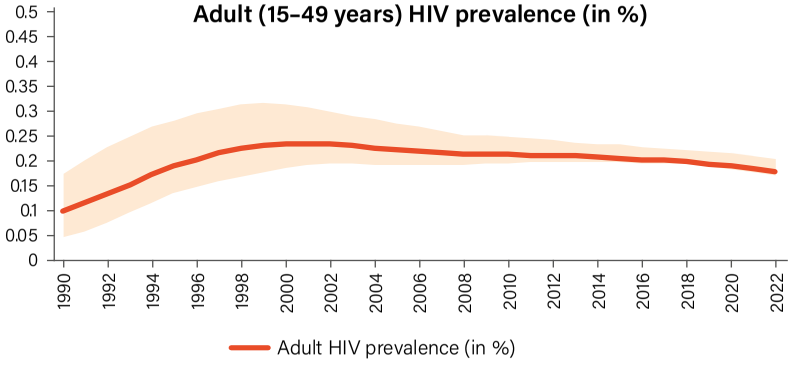
Gujarat

Adult (15–49 years) prevalence (in %)

Female	Male
0.16 (0.15–0.19)	0.20 (0.18–0.23)

Total
0.18
(0.17–0.21)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

Adult (15+ years)	Female (15+ years)	Children (<15 years)
1,11,635 (1,03,545–1,28,800)	47,225 (43,052–53,663)	3,545 (3,205–4,096)

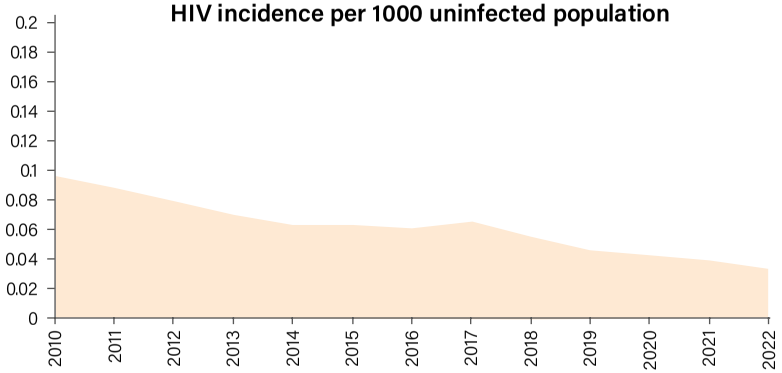
Total
1,15,180
(1,06,695–1,32,672)

HIV incidence per 1000 uninfected population

Female	Male
0.03 (0.02–0.05)	0.04 (0.02–0.06)

Total
0.03
(0.02–0.05)

HIV incidence per 1000 uninfected population



New HIV infections

Adult (15+ years)	Female (15+ years)	Children (<15 years)
2,238 (1,583–3,542)	1,033 (712–1,616)	171 (116–256)

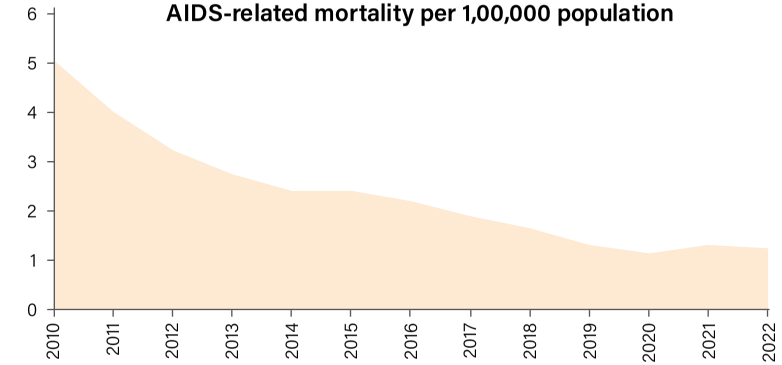
Total
2,408
(1,708–3,785)

AIDS-related mortality per 1,00,000 population

Female	Male
1.3 (0.78–2.27)	1.15 (0.85–1.6)

Total
1.22
(0.87–1.83)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

Adult (15+ years)	Female (15+ years)	Children (<15 years)
740 (526–1,117)	379 (216–681)	117 (83–173)

Total
857
(613–1,283)

Haryana

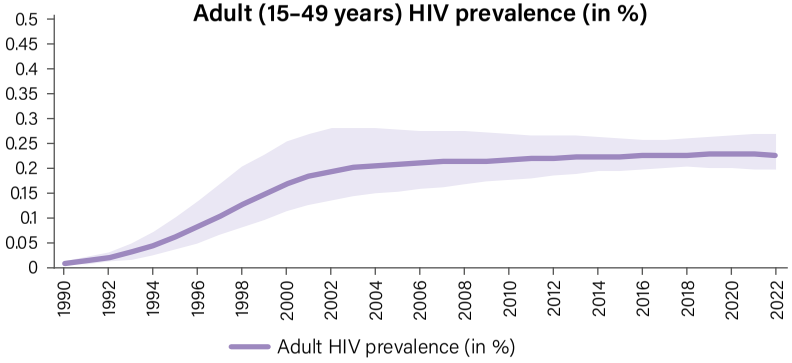
Adult (15–49 years) prevalence (in %)

0.17
Female
(0.14–0.20)

0.28
Male
(0.23–0.34)

Total
0.23
(0.19–0.27)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

53,049
Adult
(15+ years)
(45,533–62,976)

18,933
Female
(15+ years)
(16,285–22,327)

1,411
Children
(<15 years)
(1,194–1,668)

Total
54,459
(46,707–64,565)

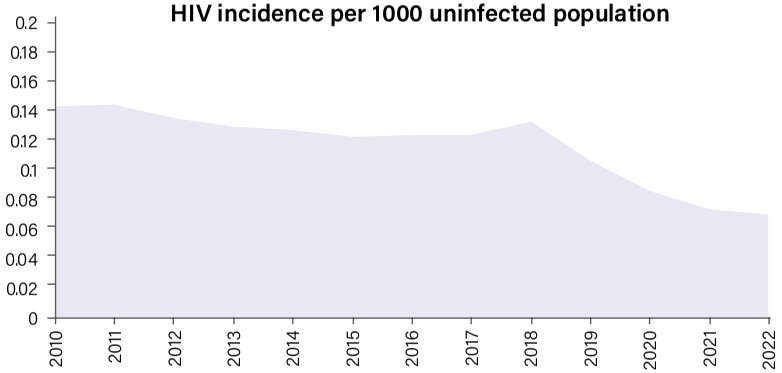
HIV incidence per 1000 uninfected population

0.05
Female
(0.04–0.08)

0.09
Male
(0.06–0.14)

Total
0.07
(0.05–0.11)

HIV incidence per 1000 uninfected population



New HIV infections

2,023
Adult
(15+ years)
(1,417–3,183)

667
Female
(15+ years)
(475–1,063)

87
Children
(<15 years)
(55–143)

Total
2,110
(1,477–3,317)

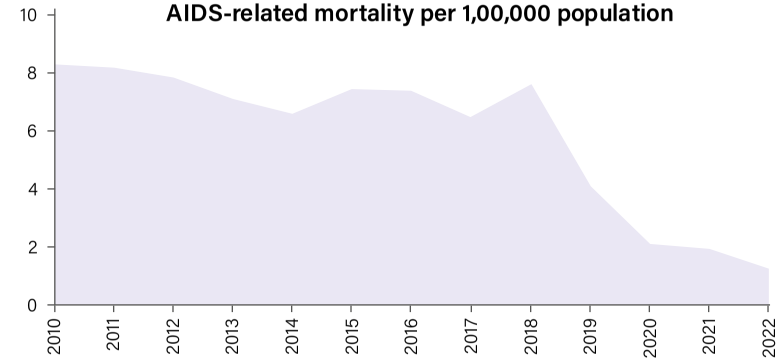
AIDS-related mortality per 1,00,000 population

0.64
Female
(0.37–0.99)

1.82
Male
(1.32–2.6)

Total
1.26
(0.92–1.82)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

342
Adult
(15+ years)
(251–488)

74
Female
(15+ years)
(43–115)

32
Children
(<15 years)
(14–60)

Total
375
(271–539)

Himachal Pradesh

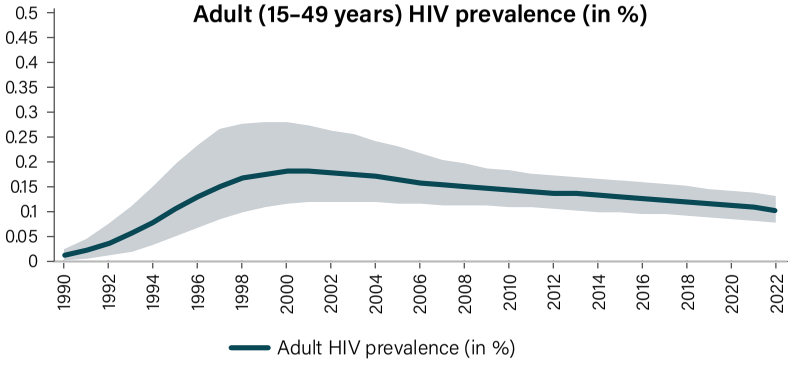
Adult (15–49 years) prevalence (in %)

0.09
Female
(0.07–0.11)

0.12
Male
(0.10–0.16)

Total
0.11
(0.08–0.13)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

7,322
Adult
(15+ years)
(5,800–8,973)

2,976
Female
(15+ years)
(2,272–3,707)

154
Children
(<15 years)
(106–209)

Total
7,476
(5,912–9,165)

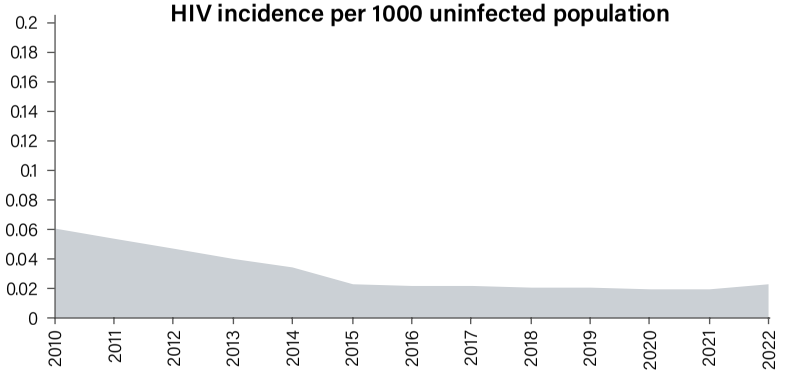
HIV incidence per 1000 uninfected population

0.02
Female
(0.01–0.03)

0.03
Male
(0.02–0.04)

Total
0.02
(0.01–0.04)

HIV incidence per 1000 uninfected population



New HIV infections

165
Adult
(15+ years)
(102–266)

71
Female
(15+ years)
(43–112)

7
Children
(<15 years)
(4–12)

Total
172
(106–277)

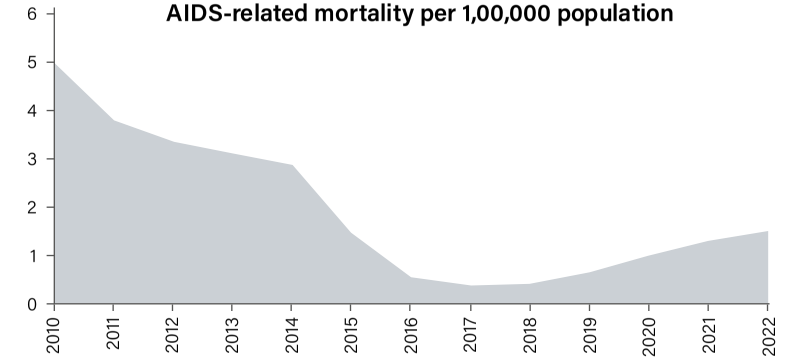
AIDS-related mortality per 1,00,000 population

0.27
Female
(0.12–0.52)

2.74
Male
(1.31–4.79)

Total
1.52
(0.74–2.68)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

111
Adult
(15+ years)
(53–194)

9
Female
(15+ years)
(4–17)

2
Children
(<15 years)
(1–3)

Total
113
(55–198)

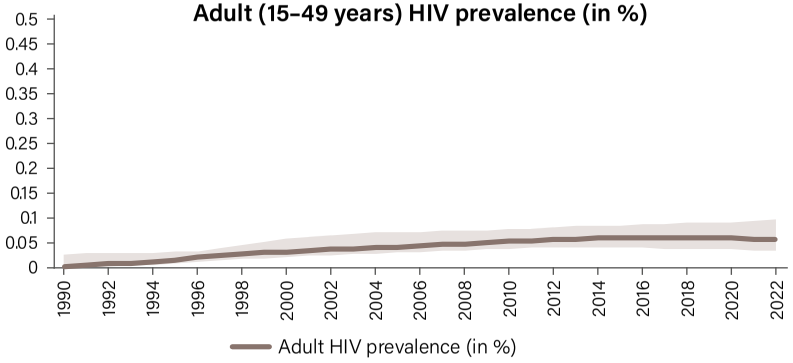
Jammu & Kashmir and Ladakh

Adult (15–49 years) prevalence (in %)

Female	Male
0.05	0.07
(0.03–0.08)	(0.04–0.11)

Total
0.06
(0.04–0.10)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

Adult (15+ years)	Female (15+ years)	Children (<15 years)
6,487	2,559	182
(4,194–10,472)	(1,625–4,183)	(124–272)

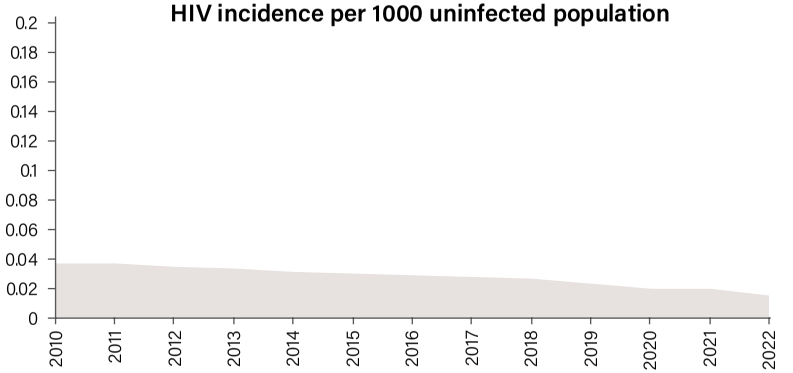
Total
6,669
(4,314–10,726)

HIV incidence per 1000 uninfected population

Female	Male
0.015	0.02
(0.006–0.047)	(0.01–0.06)

Total
0.02
(0.01–0.05)

HIV incidence per 1000 uninfected population



New HIV infections

Adult (15+ years)	Female (15+ years)	Children (<15 years)
207	85	16
(89–673)	(36–285)	(7–37)

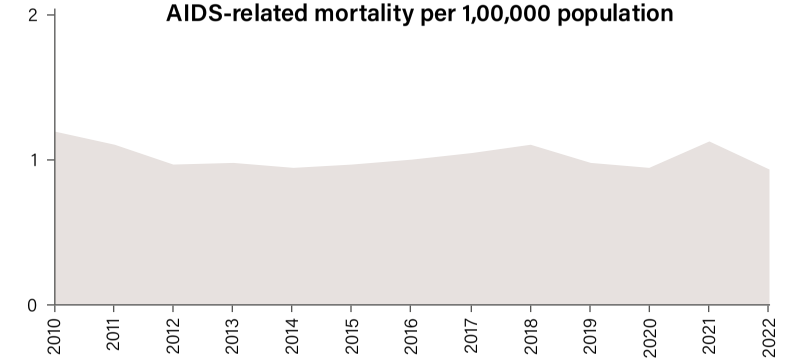
Total
223
(96–715)

AIDS-related mortality per 1,00,000 population

Female	Male
0.56	1.29
(0.14–1.52)	(0.57–2.7)

Total
0.94
(0.38–2.11)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

Adult (15+ years)	Female (15+ years)	Children (<15 years)
117	31	9
(48–265)	(8–89)	(2–21)

Total
126
(51–284)

Jharkhand

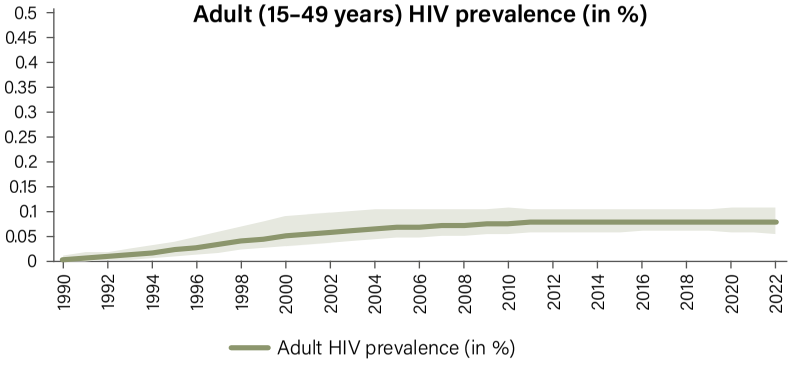
Adult (15–49 years) prevalence (in %)

0.08
Female
(0.05–0.10)

0.09
Male
(0.06–0.12)

Total
0.08
(0.06–0.11)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

24,458
Adult
(15+ years)
(17,738–32,245)

11,179
Female
(15+ years)
(8,017–14,864)

1,151
Children
(<15 years)
(826–1,551)

Total
25,610
(18,568–33,847)

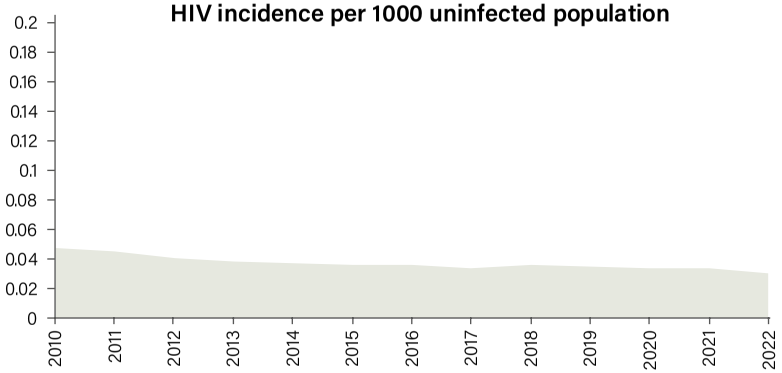
HIV incidence per 1000 uninfected population

0.03
Female
(0.01–0.06)

0.03
Male
(0.01–0.06)

Total
0.03
(0.01–0.06)

HIV incidence per 1000 uninfected population



New HIV infections

1,109
Adult
(15+ years)
(454–2,136)

523
Female
(15+ years)
(216–1,015)

87
Children
(<15 years)
(32–161)

Total
1,196
(488–2,291)

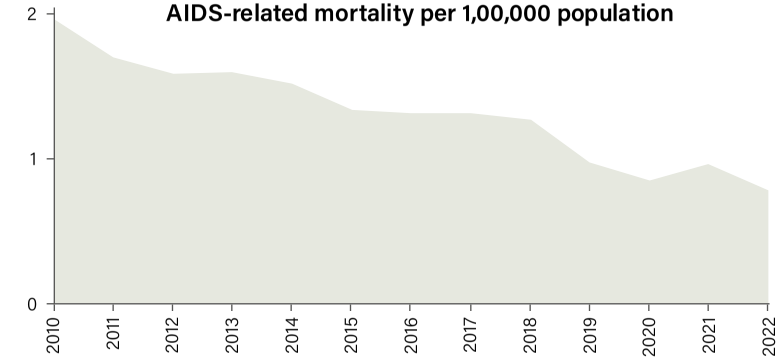
AIDS-related mortality per 1,00,000 population

0.51
Female
(0.21–1.15)

1.05
Male
(0.56–1.94)

Total
0.79
(0.4–1.54)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

274
Adult
(15+ years)
(145–531)

82
Female
(15+ years)
(35–187)

30
Children
(<15 years)
(7–66)

Total
304
(154–594)

Karnataka

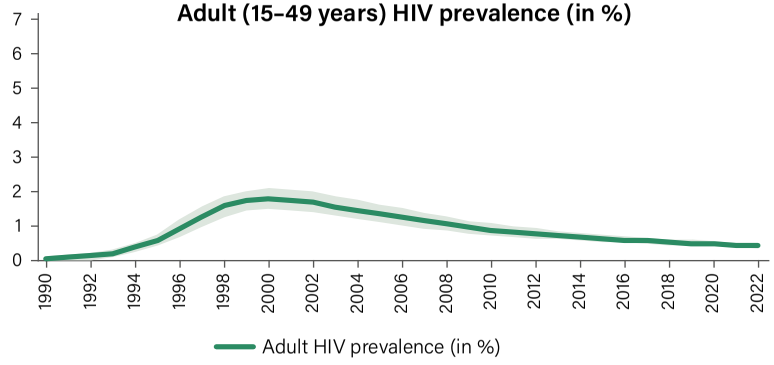
Adult (15–49 years) prevalence (in %)

0.46
Female
(0.41–0.54)

0.41
Male
(0.35–0.48)

Total
0.43
(0.38–0.51)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

2,67,614
Adult
(15+ years)
(2,37,014–3,04,397)

1,40,576
Female
(15+ years)
(1,24,776–1,59,517)

5,971
Children
(<15 years)
(4,990–7,435)

Total
2,73,585
(2,42,044–3,11,627)

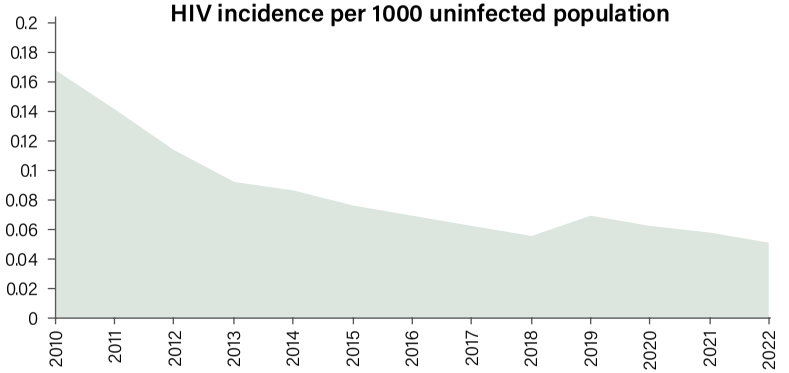
HIV incidence per 1000 uninfected population

0.05
Female
(0.04–0.07)

0.05
Male
(0.04–0.07)

Total
0.05
(0.04–0.07)

HIV incidence per 1000 uninfected population



New HIV infections

3,214
Adult
(15+ years)
(2,359–4,277)

1,590
Female
(15+ years)
(1,152–2,094)

207
Children
(<15 years)
(132–307)

Total
3,421
(2,544–4,565)

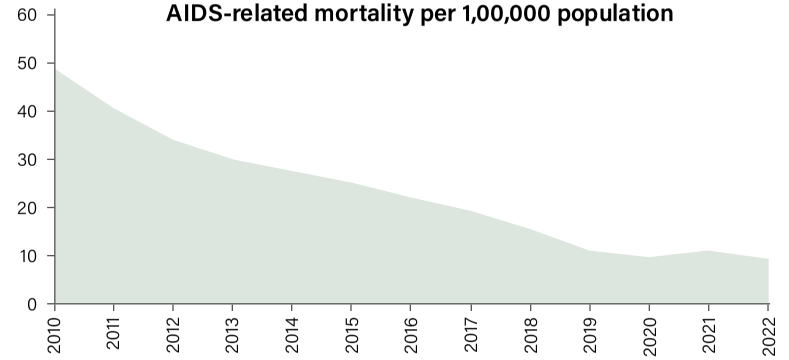
AIDS-related mortality per 1,00,000 population

7.83
Female
(4.56–12.05)

11.75
Male
(8.42–16.39)

Total
9.82
(6.57–14.19)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

6,477
Adult
(15+ years)
(4,370–9,312)

2,534
Female
(15+ years)
(1,482–3,878)

100
Children
(<15 years)
(38–201)

Total
6,577
(4,401–9,503)

Kerala

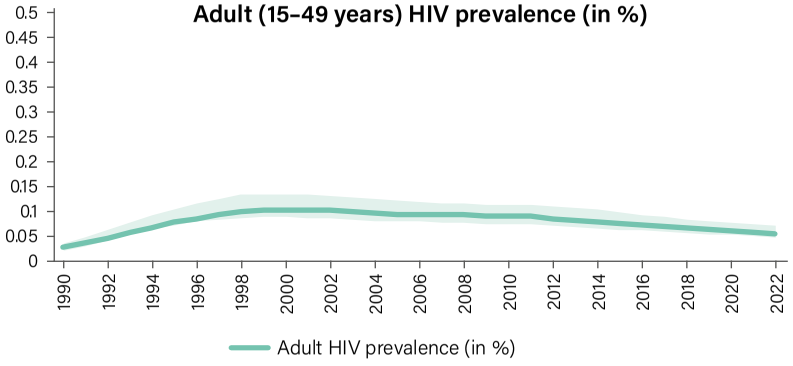
Adult (15–49 years) prevalence (in %)

0.05
Female
(0.04–0.07)

0.06
Male
(0.05–0.08)

Total
0.06
(0.05–0.07)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

20,160
Adult
(15+ years)
(16,335–24,889)

9,411
Female
(15+ years)
(7,705–11,570)

544
Children
(<15 years)
(417–712)

Total
20,704
(16,761–25,524)

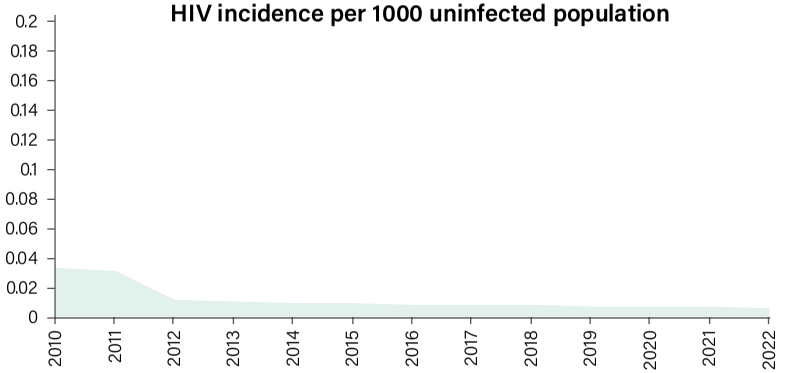
HIV incidence per 1000 uninfected population

0.007
Female
(0.004–0.009)

0.008
Male
(0.005–0.012)

Total
0.007
(0.005–0.011)

HIV incidence per 1000 uninfected population



New HIV infections

246
Adult
(15+ years)
(165–356)

116
Female
(15+ years)
(79–165)

13
Children
(<15 years)
(7–24)

Total
259
(172–382)

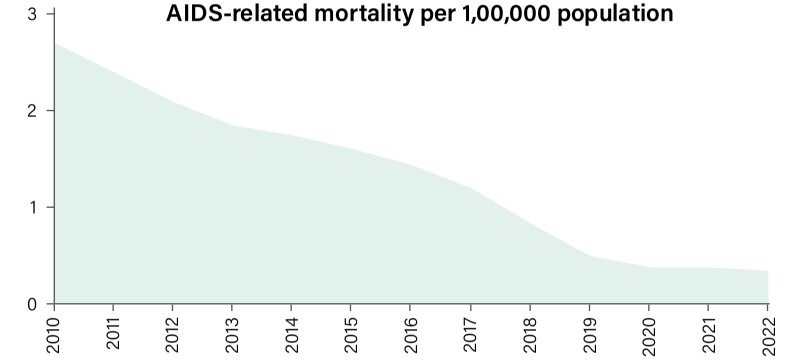
AIDS-related mortality per 1,00,000 population

0.36
Female
(0.18–0.74)

0.35
Male
(0.23–0.52)

Total
0.36
(0.23–0.59)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

108
Adult
(15+ years)
(68–179)

58
Female
(15+ years)
(28–119)

19
Children
(<15 years)
(10–32)

Total
127
(80–211)

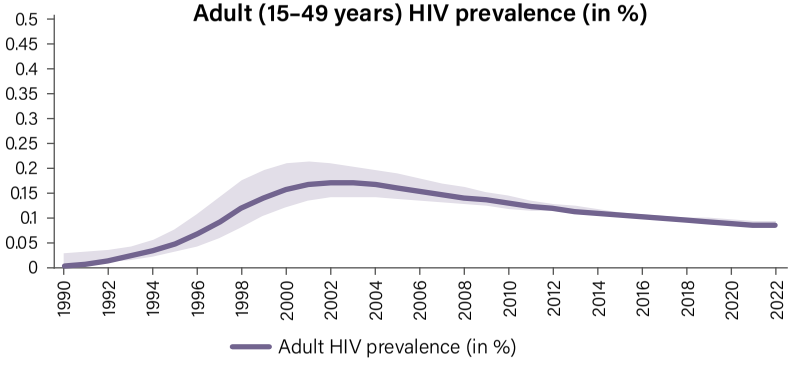
Madhya Pradesh

Adult (15–49 years) prevalence (in %)

Female	Male
0.066	0.10
(0.060–0.072)	(0.09–0.12)

Total
0.085
(0.077–0.094)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

Adult (15+ years)	Female (15+ years)	Children (<15 years)
56,520	21,326	1,927
(51,420–62,503)	(19,411–23,397)	(1,712–2,177)

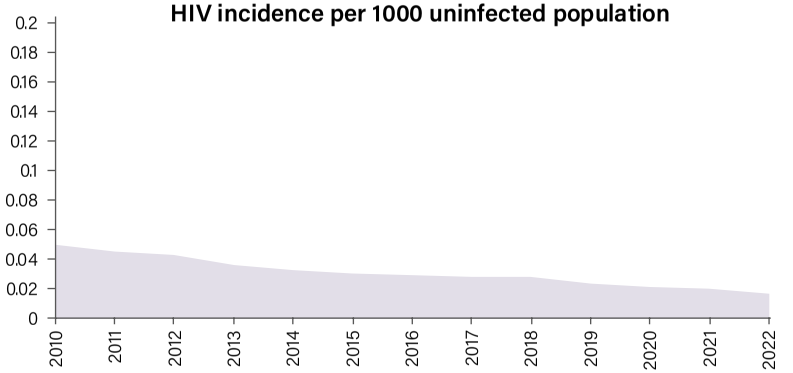
Total
58,446
(53,218–64,614)

HIV incidence per 1000 uninfected population

Female	Male
0.012	0.02
(0.008–0.018)	(0.01–0.03)

Total
0.02
(0.01–0.03)

HIV incidence per 1000 uninfected population



New HIV infections

Adult (15+ years)	Female (15+ years)	Children (<15 years)
1,407	470	91
(886–2,018)	(296–690)	(67–134)

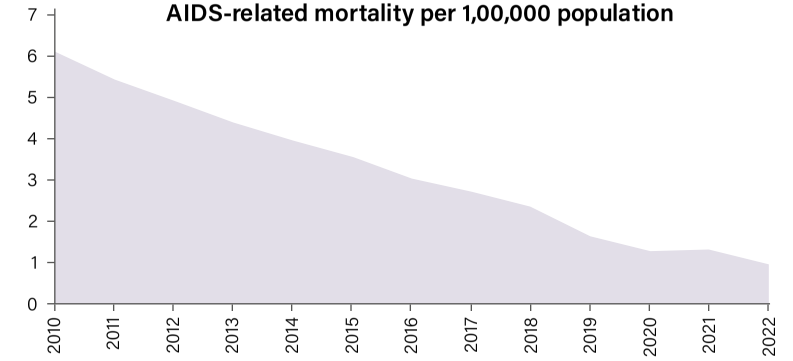
Total
1,498
(953–2,147)

AIDS-related mortality per 1,00,000 population

Female	Male
0.39	1.51
(0.25–0.56)	(1.17–1.97)

Total
0.96
(0.74–1.28)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

Adult (15+ years)	Female (15+ years)	Children (<15 years)
783	143	36
(608–1,034)	(91–208)	(18–68)

Total
820
(628–1,084)

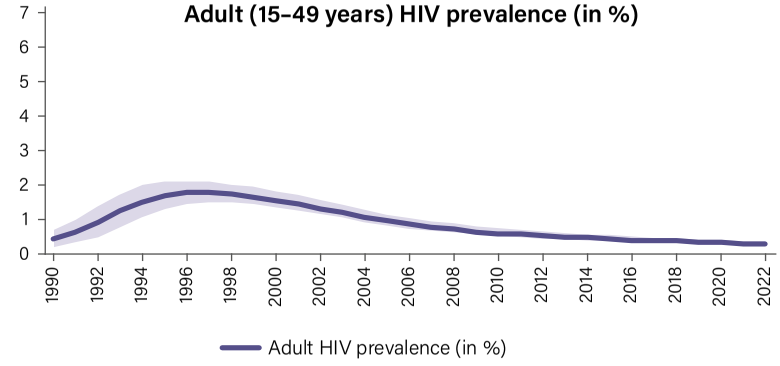
Maharashtra

Adult (15–49 years) prevalence (in %)

Female	Male
0.30	0.31
(0.25–0.37)	(0.26–0.38)

Total
0.30
(0.26–0.38)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

Adult (15+ years)	Female (15+ years)	Children (<15 years)
3,79,001	1,75,672	9,074
(3,29,290–4,52,513)	(1,51,358–2,10,077)	(7,089–11,583)

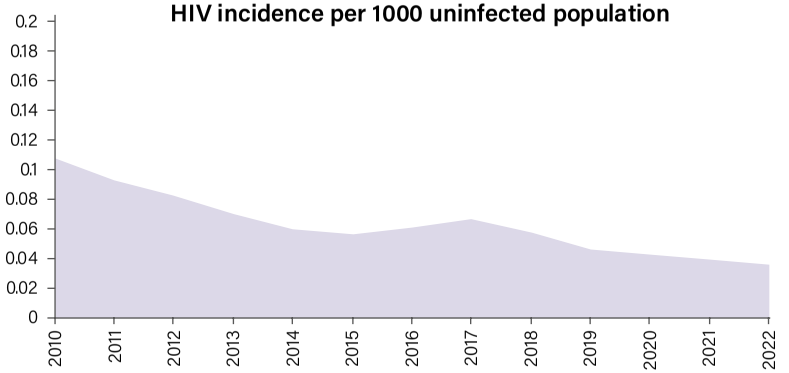
Total
3,88,075
(3,36,708–4,63,774)

HIV incidence per 1000 uninfected population

Female	Male
0.04	0.04
(0.02–0.06)	(0.02–0.06)

Total
0.04
(0.02–0.06)

HIV incidence per 1000 uninfected population



New HIV infections

Adult (15+ years)	Female (15+ years)	Children (<15 years)
4,097	1,950	364
(2,554–6,953)	(1,203–3,324)	(210–610)

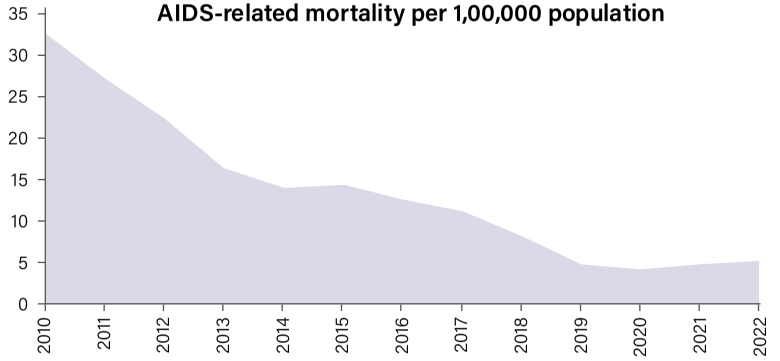
Total
4,461
(2,778–7,586)

AIDS-related mortality per 1,00,000 population

Female	Male
2.04	8.34
(0.98–4.31)	(5.7–12.83)

Total
5.31
(3.43–8.98)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

Adult (15+ years)	Female (15+ years)	Children (<15 years)
6,523	1,168	108
(4,212–10,884)	(560–2,448)	(55–351)

Total
6,631
(4,280–11,213)

Manipur

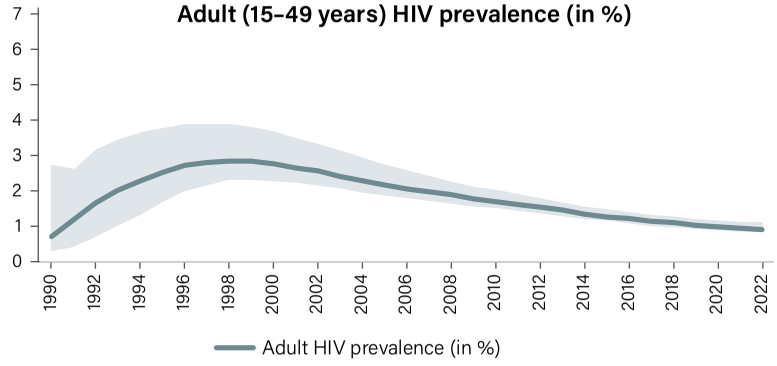
Adult (15–49 years) prevalence (in %)

0.93
Female
(0.79–1.11)

0.94
Male
(0.78–1.14)

Total
0.94
(0.79–1.12)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

24,558
Adult
(15+ years)
(20,960–28,432)

11,997
Female
(15+ years)
(10,313–13,941)

1,389
Children
(<15 years)
(1,162–1,665)

Total
25,948
(22,140–30,082)

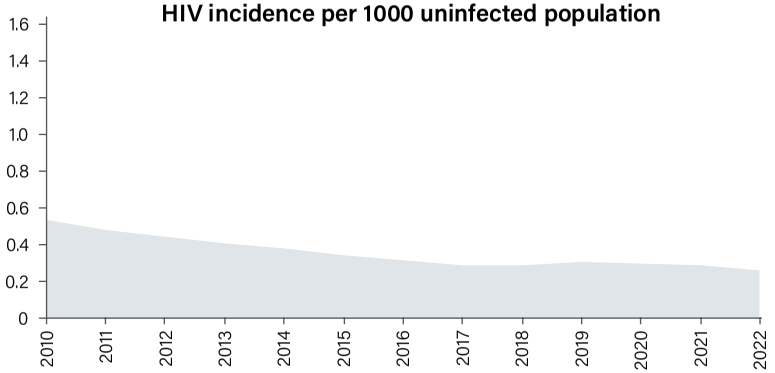
HIV incidence per 1000 uninfected population

0.26
Female
(0.15–0.45)

0.27
Male
(0.16–0.48)

Total
0.27
(0.16–0.46)

HIV incidence per 1000 uninfected population



New HIV infections

748
Adult
(15+ years)
(431–1,341)

365
Female
(15+ years)
(208–653)

95
Children
(<15 years)
(63–138)

Total
844
(497–1,460)

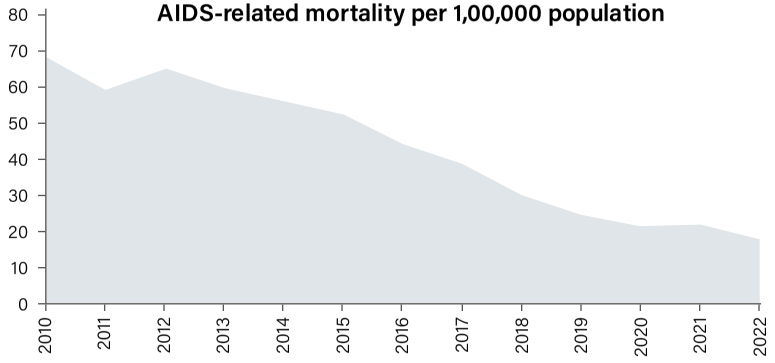
AIDS-related mortality per 1,00,000 population

15.2
Female
(9.36–23.19)

21.24
Male
(15.85–29)

Total
18.24
(13.05–25.93)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

500
Adult
(15+ years)
(351–719)

202
Female
(15+ years)
(118–314)

79
Children
(<15 years)
(57–108)

Total
579
(414–823)

Meghalaya

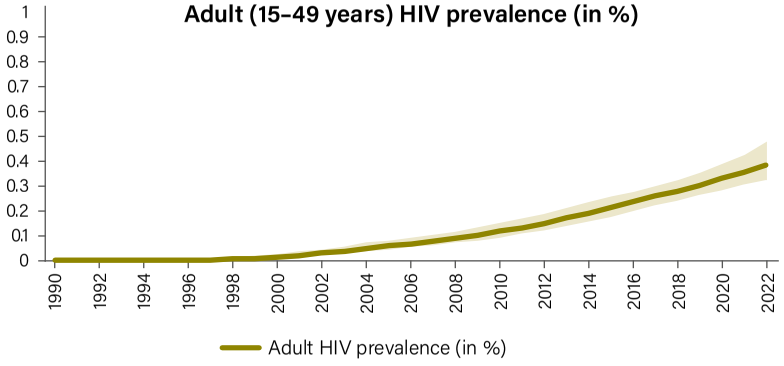
Adult (15–49 years) prevalence (in %)

0.38
Female
(0.30–0.46)

0.41
Male
(0.33–0.50)

Total
0.39
(0.32–0.48)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

8,143
Adult
(15+ years)
(6,542–9,951)

3,918
Female
(15+ years)
(3,173–4,822)

418
Children
(<15 years)
(327–515)

Total
8,560
(6,883–10,480)

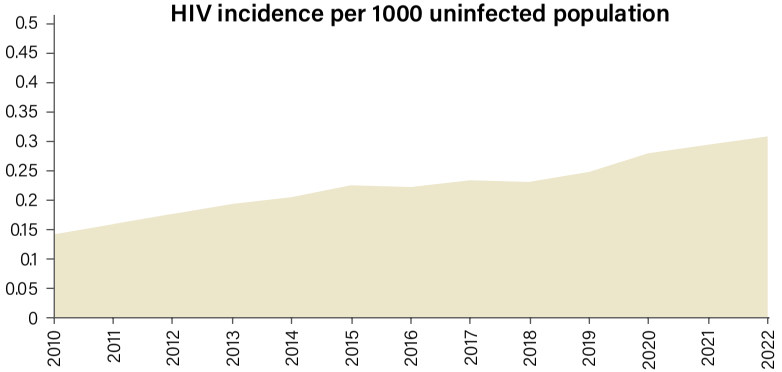
HIV incidence per 1000 uninfected population

0.30
Female
(0.20–0.46)

0.32
Male
(0.21–0.49)

Total
0.31
(0.21–0.47)

HIV incidence per 1000 uninfected population



New HIV infections

958
Adult
(15+ years)
(651–1,457)

465
Female
(15+ years)
(313–704)

60
Children
(<15 years)
(37–97)

Total
1,018
(690–1,549)

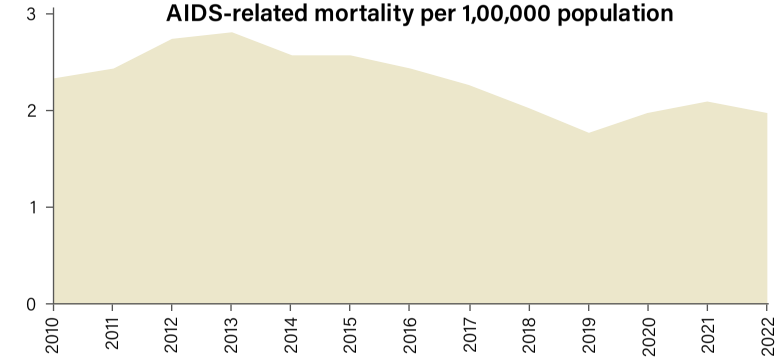
AIDS-related mortality per 1,00,000 population

1.68
Female
(1.11–2.4)

2.3
Male
(1.59–3.18)

Total
1.99
(1.37–2.79)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

27
Adult
(15+ years)
(18–38)

8
Female
(15+ years)
(5–13)

39
Children
(<15 years)
(25–57)

Total
66
(45–92)

Mizoram

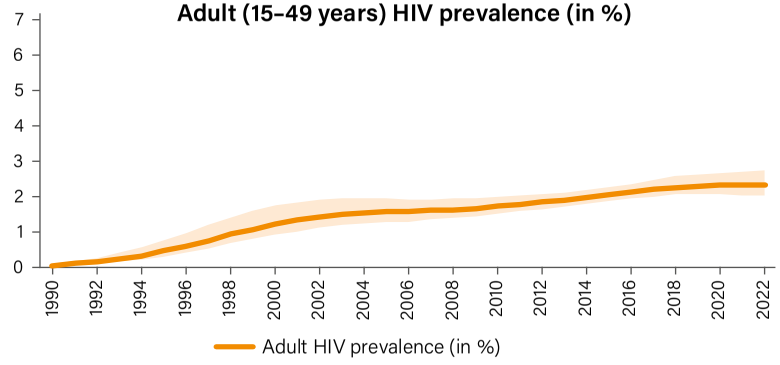
Adult (15–49 years) prevalence (in %)

2.05
Female
(1.76–2.41)

2.61
Male
(2.24–3.11)

Total
2.34
(2.01–2.75)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

20,672
Adult
(15+ years)
(17,647–24,422)

9,023
Female
(15+ years)
(7,642–10,667)

768
Children
(<15 years)
(646–905)

Total
21,440
(18,302–25,287)

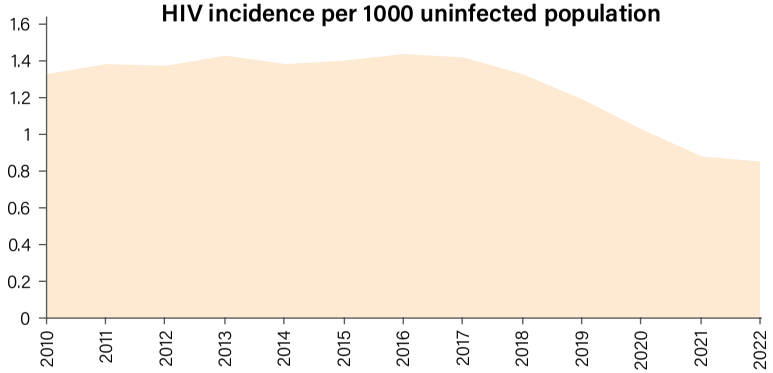
HIV incidence per 1000 uninfected population

0.74
Female
(0.53–1.02)

0.97
Male
(0.70–1.33)

Total
0.86
(0.62–1.16)

HIV incidence per 1000 uninfected population



New HIV infections

977
Adult
(15+ years)
(707–1,310)

415
Female
(15+ years)
(302–568)

51
Children
(<15 years)
(33–77)

Total
1,029
(744–1,387)

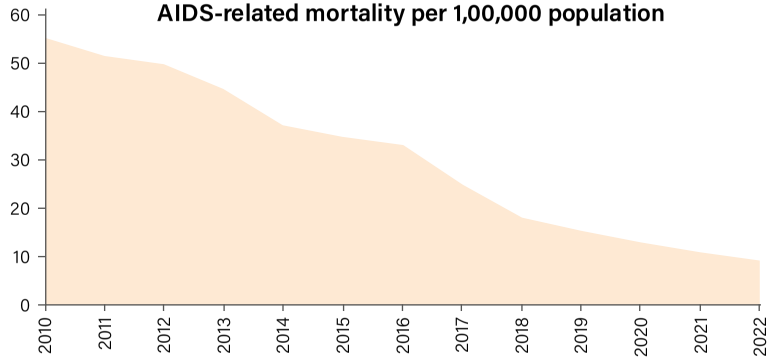
AIDS-related mortality per 1,00,000 population

9.86
Female
(6.14–14.5)

8.63
Male
(6.18–11.59)

Total
9.24
(6.6–12.55)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

69
Adult
(15+ years)
(49–94)

38
Female
(15+ years)
(21–57)

44
Children
(<15 years)
(29–63)

Total
113
(80–153)

Nagaland

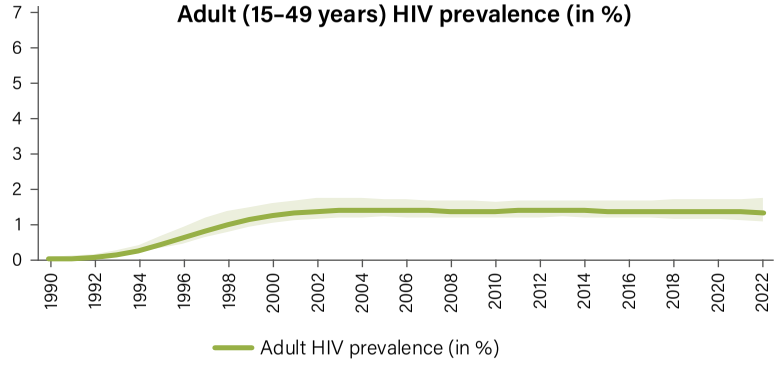
Adult (15–49 years) prevalence (in %)

1.31
Female
(1.0–1.7)

1.37
Male
(1.06–1.8)

Total
1.34
(1.03–1.75)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

21,238
Adult
(15+ years)
(16,482–27,005)

10,016
Female
(15+ years)
(7,848–12,780)

947
Children
(<15 years)
(727–1,223)

Total
22,184
(17,211–28,188)

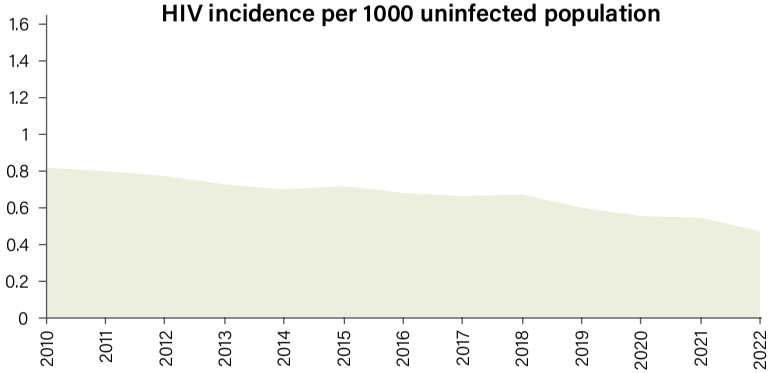
HIV incidence per 1000 uninfected population

0.47
Female
(0.22–0.86)

0.50
Male
(0.23–0.90)

Total
0.48
(0.23–0.89)

HIV incidence per 1000 uninfected population



New HIV infections

991
Adult
(15+ years)
(472–1,841)

465
Female
(15+ years)
(221–852)

59
Children
(<15 years)
(28–102)

Total
1,050
(499–1,933)

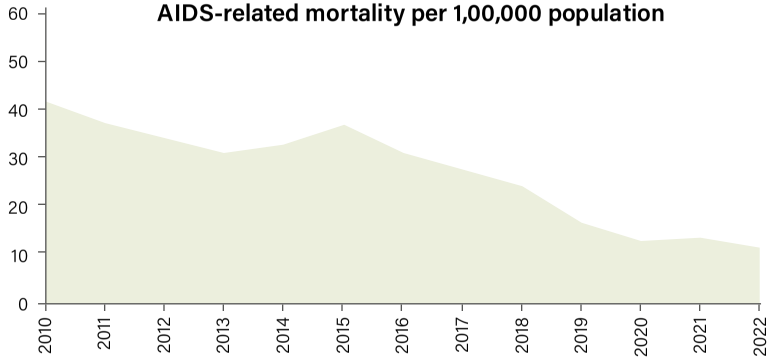
AIDS-related mortality per 1,00,000 population

9.32
Female
(4.87–16.06)

14.63
Male
(9.35–24.07)

Total
12.07
(7.38–19.87)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

210
Adult
(15+ years)
(131–357)

72
Female
(15+ years)
(37–128)

55
Children
(<15 years)
(27–90)

Total
265
(162–437)

Odisha

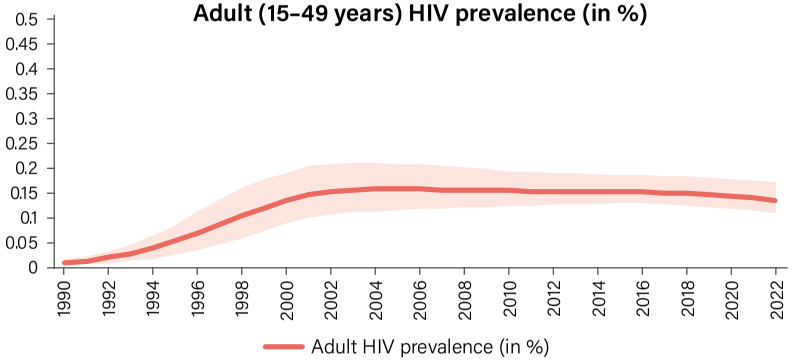
Adult (15–49 years) prevalence (in %)

0.13
Female
(0.10–0.17)

0.14
Male
(0.11–0.19)

Total
0.14
(0.11–0.18)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

50,962
Adult
(15+ years)
(40,685–63,614)

23,919
Female
(15+ years)
(19,069–29,914)

1,917
Children
(<15 years)
(1,489–2,458)

Total
52,880
(42,261–66,032)

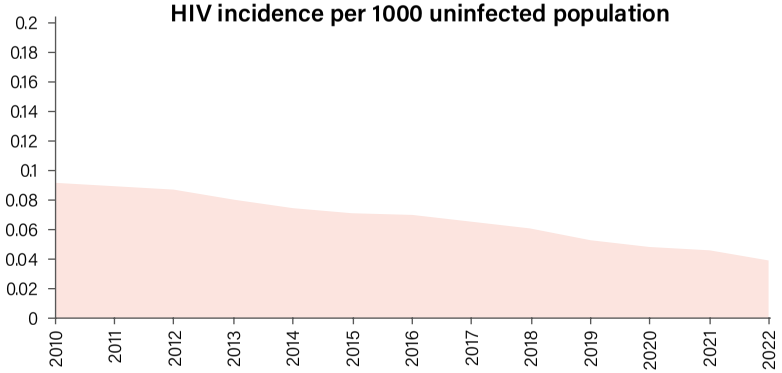
HIV incidence per 1000 uninfected population

0.04
Female
(0.02–0.07)

0.04
Male
(0.02–0.07)

Total
0.04
(0.02–0.07)

HIV incidence per 1000 uninfected population



New HIV infections

1,703
Adult
(15+ years)
(851–3,047)

851
Female
(15+ years)
(432–1,565)

142
Children
(<15 years)
(72–234)

Total
1,844
(919–3,270)

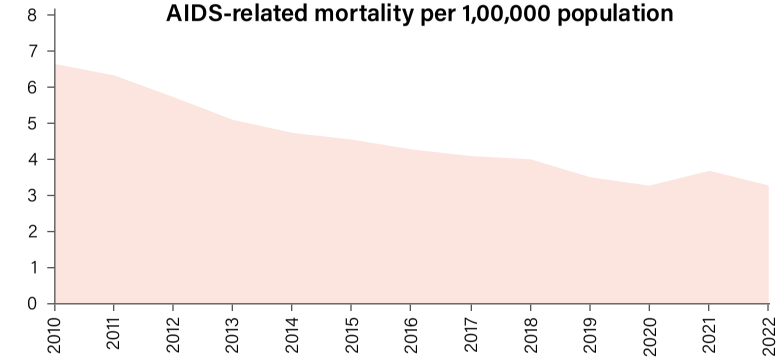
AIDS-related mortality per 1,00,000 population

3.47
Female
(1.8–5.29)

3.14
Male
(1.92–4.74)

Total
3.31
(1.92–5.01)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

1,429
Adult
(15+ years)
(844–2,160)

748
Female
(15+ years)
(393–1,147)

85
Children
(<15 years)
(33–139)

Total
1,514
(879–2,296)

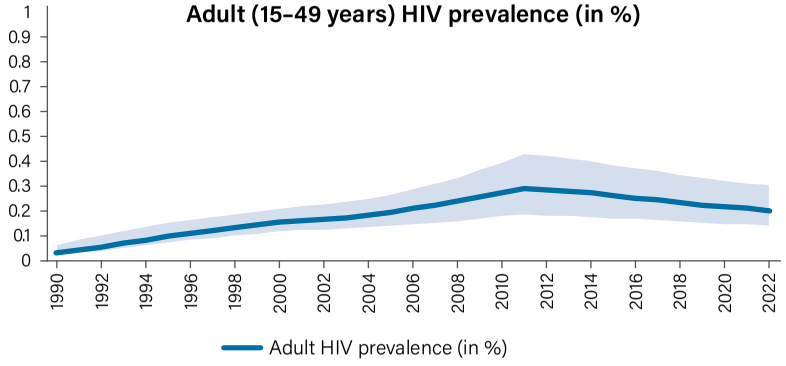
Puducherry

Adult (15–49 years) prevalence (in %)

Female	Male
0.19	0.22
(0.13–0.28)	(0.15–0.34)

Total
0.21
(0.14–0.31)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

Adult (15+ years)	Female (15+ years)	Children (<15 years)
2,843	1,379	83
(1,957–3,967)	(951–1,925)	(48–129)

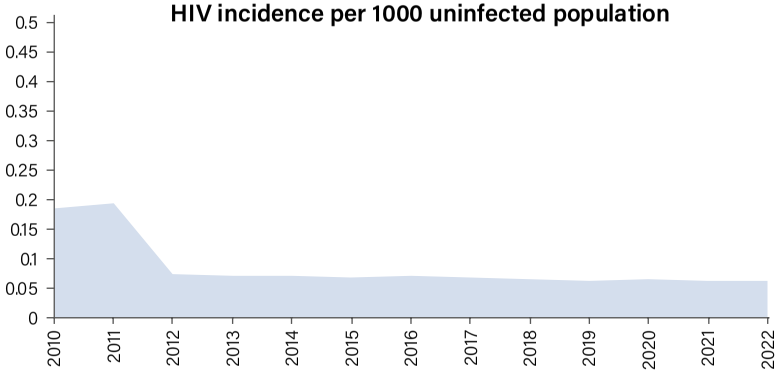
Total
2,926
(1,998–4,094)

HIV incidence per 1000 uninfected population

Female	Male
0.06	0.07
(0.03–0.10)	(0.04–0.13)

Total
0.06
(0.03–0.11)

HIV incidence per 1000 uninfected population



New HIV infections

Adult (15+ years)	Female (15+ years)	Children (<15 years)
96	46	6
(49–171)	(24–80)	(3–10)

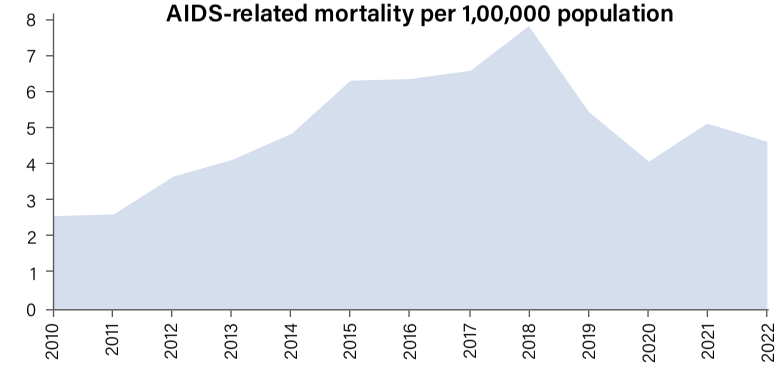
Total
102
(52–181)

AIDS-related mortality per 1,00,000 population

Female	Male
3.96	5.39
(0.88–8.52)	(2.06–10.71)

Total
4.64
(1.49–9.56)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

Adult (15+ years)	Female (15+ years)	Children (<15 years)
70	31	4
(22–145)	(7–67)	(1–7)

Total
74
(24–152)

Punjab

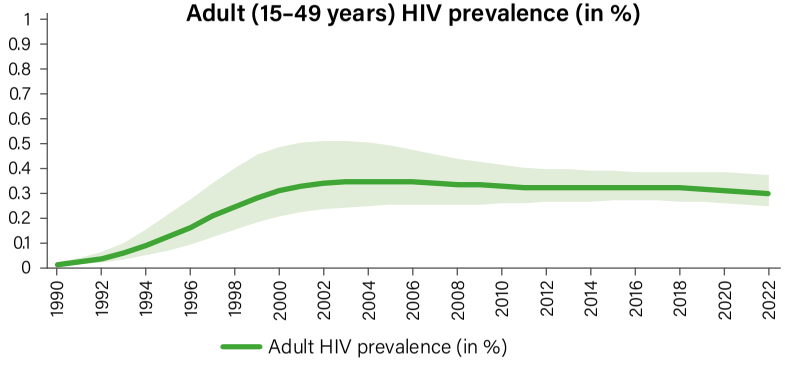
Adult (15–49 years) prevalence (in %)

0.25
Female
(0.21–0.31)

0.35
Male
(0.28–0.44)

Total
0.30
(0.24–0.38)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

78,650
Adult
(15+ years)
(63,428–97,033)

31,082
Female
(15+ years)
(25,178–37,868)

2,139
Children
(<15 years)
(1,676–2,715)

Total
80,788
(65,134–99,610)

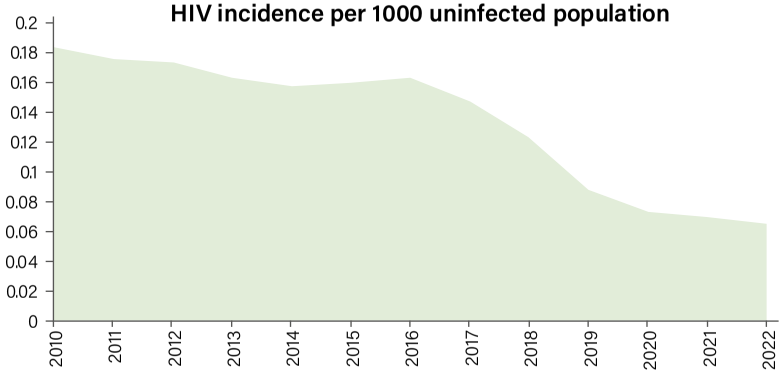
HIV incidence per 1000 uninfected population

0.06
Female
(0.04–0.08)

0.07
Male
(0.05–0.11)

Total
0.07
(0.05–0.1)

HIV incidence per 1000 uninfected population



New HIV infections

1,898
Adult
(15+ years)
(1,377–2,779)

770
Female
(15+ years)
(555–1,128)

103
Children
(<15 years)
(71–195)

Total
2,001
(1,459–2,969)

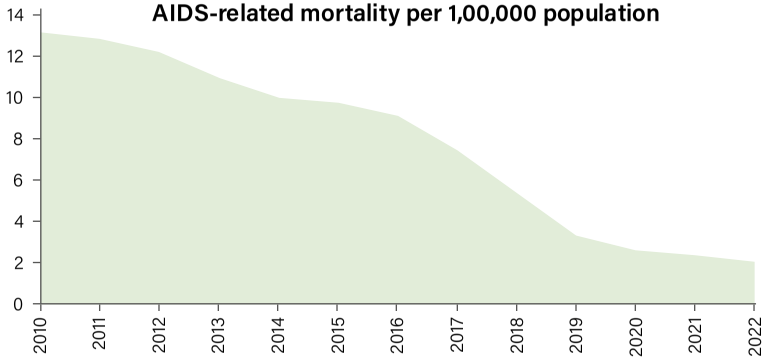
AIDS-related mortality per 1,00,000 population

2.72
Female
(1.3–5.19)

1.45
Male
(0.93–2.01)

Total
2.06
(1.26–3.1)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

538
Adult
(15+ years)
(330–806)

352
Female
(15+ years)
(163–692)

87
Children
(<15 years)
(40–149)

Total
625
(384–941)

Rajasthan

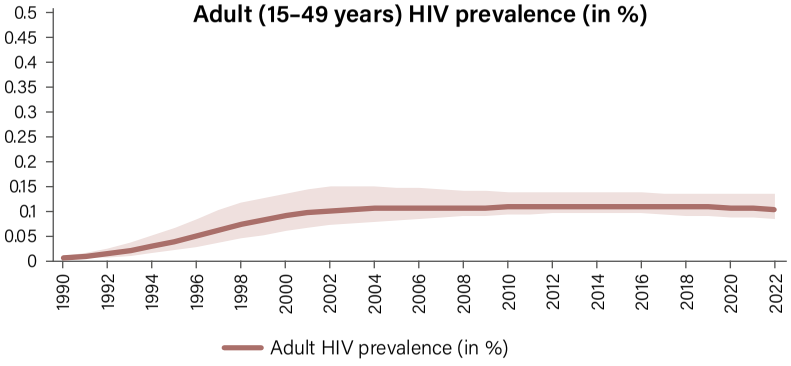
Adult (15–49 years) prevalence (in %)

0.09
Female
(0.06–0.11)

0.13
Male
(0.10–0.16)

Total
0.11
(0.08–0.14)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

68,651
Adult
(15+ years)
(53,634–86,130)

27,137
Female
(15+ years)
(20,932–35,273)

2,464
Children
(<15 years)
(1,868–3,148)

Total
71,115
(55,460–89,278)

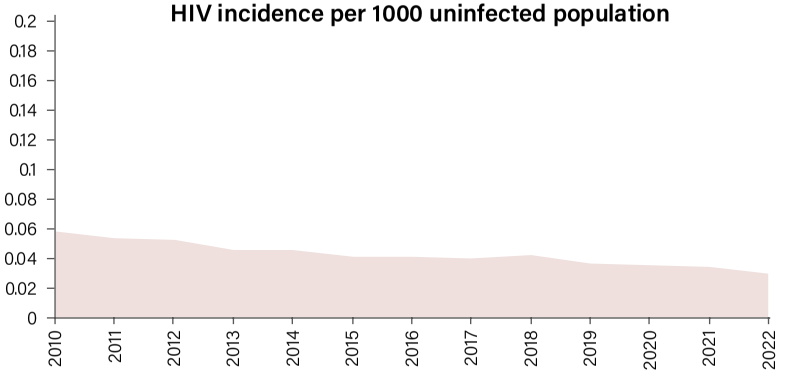
HIV incidence per 1000 uninfected population

0.02
Female
(0.01–0.05)

0.04
Male
(0.02–0.07)

Total
0.03
(0.02–0.06)

HIV incidence per 1000 uninfected population



New HIV infections

2,270
Adult
(15+ years)
(1,239– 4,522)

888
Female
(15+ years)
(477–1,770)

120
Children
(<15 years)
(69–239)

Total
2,390
(1,311–4,752)

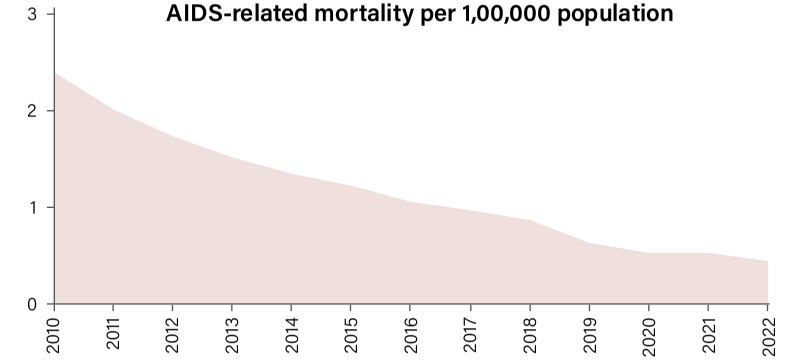
AIDS-related mortality per 1,00,000 population

0.21
Female
(0.10–0.39)

0.66
Male
(0.45–1.00)

Total
0.44
(0.3–0.68)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

320
Adult
(15+ years)
(214–486)

67
Female
(15+ years)
(30–126)

32
Children
(<15 years)
(19–71)

Total
353
(235–540)

Sikkim

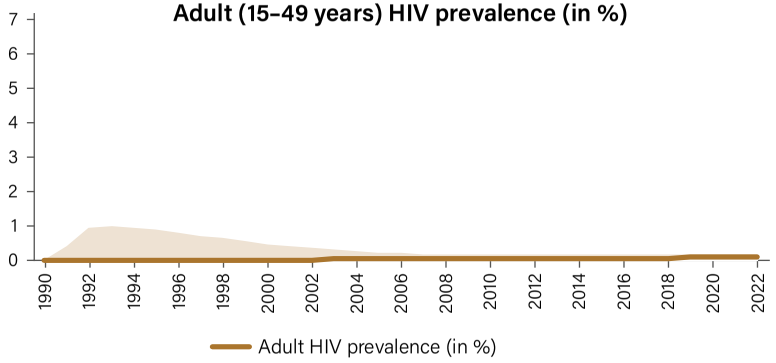
Adult (15–49 years) prevalence (in %)

0.07
Female
(0.04–0.11)

0.09
Male
(0.05–0.15)

Total
0.08
(0.04–0.13)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

419
Adult
(15+ years)
(243–674)

164
Female
(15+ years)
(94–258)

26
Children
(<15 years)
(17–41)

Total
445
(259–707)

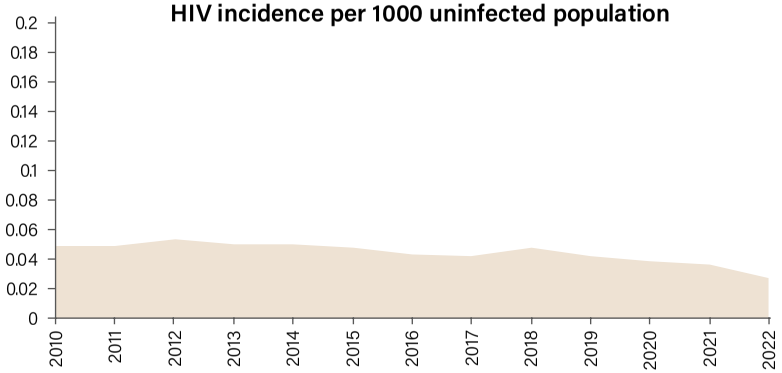
HIV incidence per 1000 uninfected population

0.02
Female
(0.01–0.08)

0.03
Male
(0.01–0.11)

Total
0.03
(0.01–0.09)

HIV incidence per 1000 uninfected population



New HIV infections

17
Adult
(15+ years)
(5–60)

7
Female
(15+ years)
(2–23)

1
Children
(<15 years)
(0–5)

Total
19
(5–64)

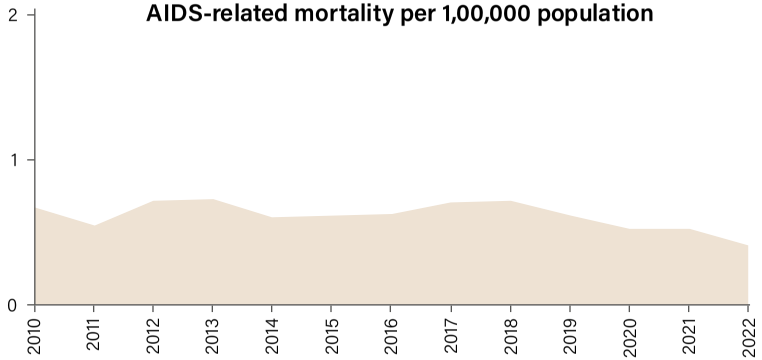
AIDS-related mortality per 1,00,000 population

0.33
Female
(0.11–0.94)

0.48
Male
(0.22–1.02)

Total
0.41
(0.17–0.93)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

1
Adult
(15+ years)
(1–3)

0
Female
(15+ years)
(0–1)

1
Children
(<15 years)
(0–3)

Total
3
(1–6)

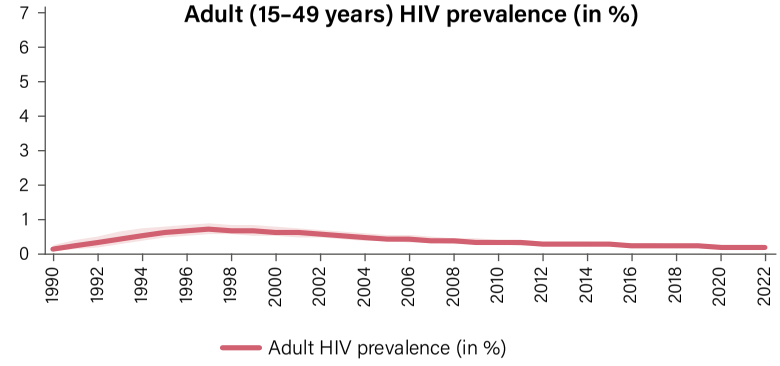
Tamil Nadu

Adult (15–49 years) prevalence (in %)

Female	Male
0.20	0.21
(0.16–0.24)	(0.16–0.26)

Total
0.21
(0.16–0.25)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

Adult (15+ years)	Female (15+ years)	Children (<15 years)
1,61,136	77,830	3,519
(1,35,268–1,90,512)	(63,729–92,547)	(2,731–4,399)

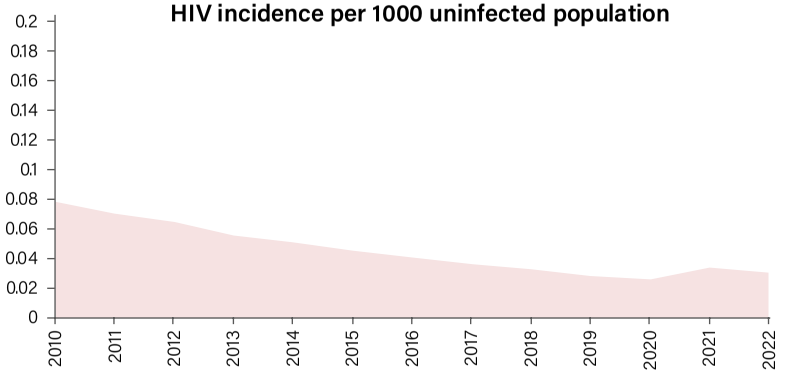
Total
1,64,656
(1,37,793–1,95,032)

HIV incidence per 1000 uninfected population

Female	Male
0.03	0.03
(0.01–0.04)	(0.02–0.06)

Total
0.03
(0.02–0.05)

HIV incidence per 1000 uninfected population



New HIV infections

Adult (15+ years)	Female (15+ years)	Children (<15 years)
2,212	1,003	123
(1,147–3,539)	(524–1,600)	(58–211)

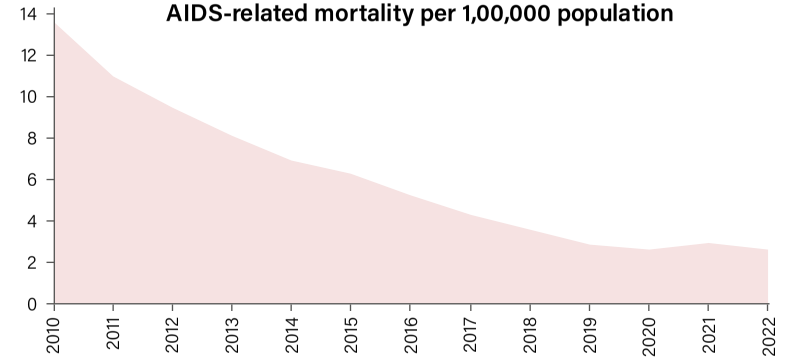
Total
2,335
(1,205–3,733)

AIDS-related mortality per 1,00,000 population

Female	Male
1.33	3.95
(0.70–2.6)	(2.62–5.97)

Total
2.64
(1.67–4.26)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

Adult (15+ years)	Female (15+ years)	Children (<15 years)
1,918	463	99
(1,235–3,101)	(239–901)	(20–177)

Total
2,017
(1,278–3,256)

Telangana

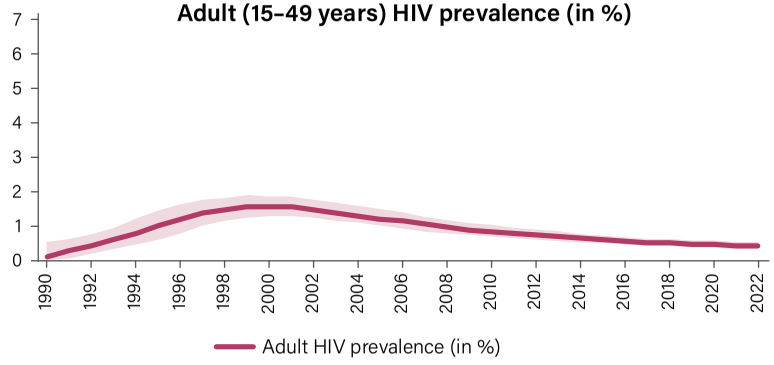
Adult (15–49 years) prevalence (in %)

0.43
Female
(0.35–0.52)

0.47
Male
(0.38–0.58)

Total
0.45
(0.37–0.55)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

1,55,537
Adult
(15+ years)
(1,32,449–1,82,348)

74,000
Female
(15+ years)
(62,667–87,082)

3,436
Children
(<15 years)
(2,637–4,359)

Total
1,58,974
(1,34,988–1,86,682)

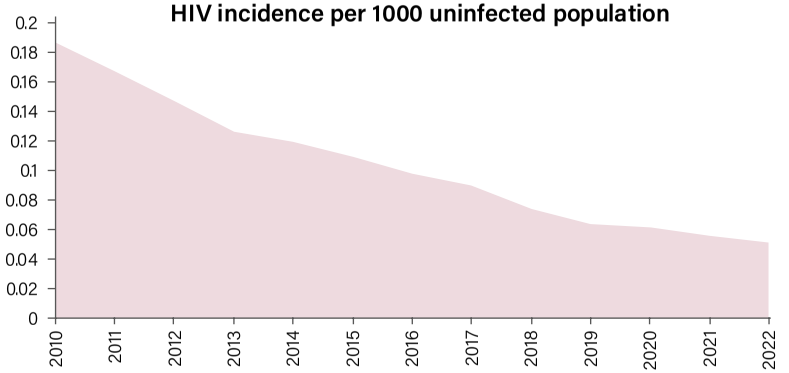
HIV incidence per 1000 uninfected population

0.05
Female
(0.02–0.08)

0.06
Male
(0.03–0.11)

Total
0.05
(0.03–0.1)

HIV incidence per 1000 uninfected population



New HIV infections

1,800
Adult
(15+ years)
(988–3,397)

776
Female
(15+ years)
(422–1,479)

147
Children
(<15 years)
(84–241)

Total
1,947
(1,079–3,643)

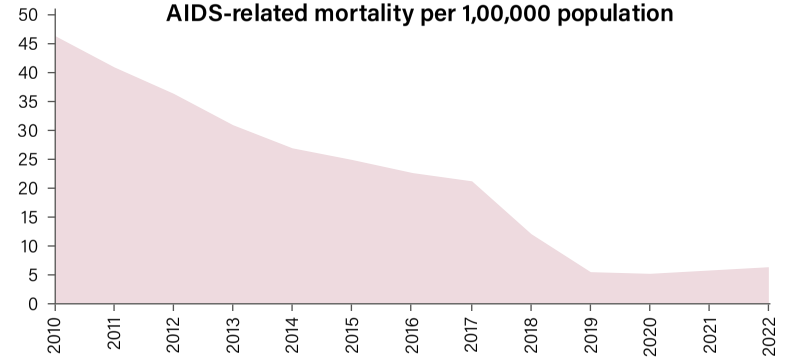
AIDS-related mortality per 1,00,000 population

2.45
Female
(1.2–5.07)

10.05
Male
(5.97–15.54)

Total
6.27
(3.67–10.48)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

2,286
Adult
(15+ years)
(1,357–3,832)

420
Female
(15+ years)
(206–881)

83
Children
(<15 years)
(24–157)

Total
2,369
(1,387–3,957)

Tripura

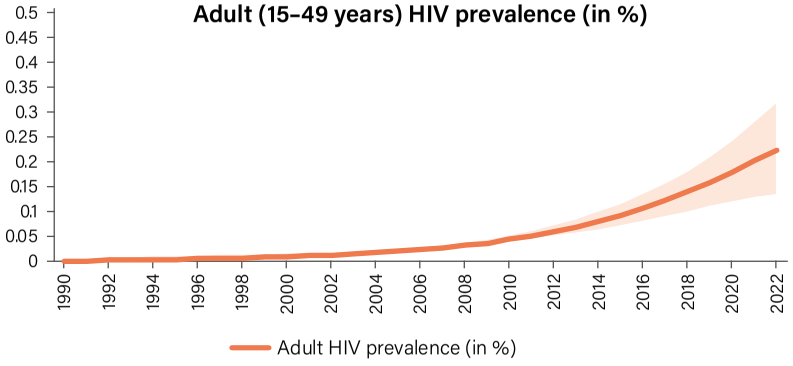
Adult (15–49 years) prevalence (in %)

0.13
Female
(0.08–0.19)

0.31
Male
(0.19–0.44)

Total
0.22
(0.13–0.32)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

5,964
Adult
(15+ years)
(3,506–8,487)

1,745
Female
(15+ years)
(1,056–2,466)

115
Children
(<15 years)
(73–163)

Total
6,079
(3,585–8,657)

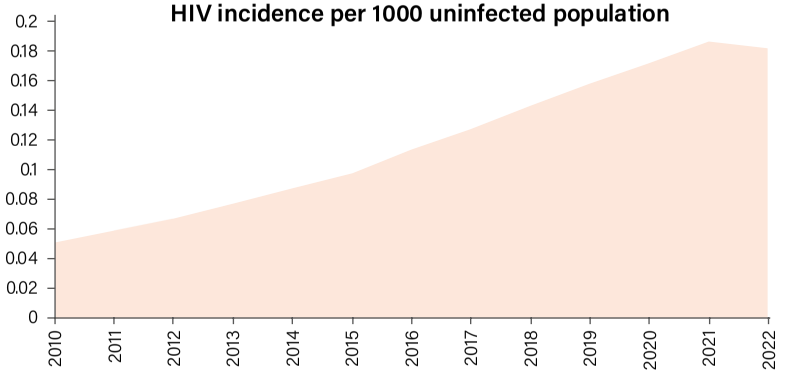
HIV incidence per 1000 uninfected population

0.11
Female
(0.04–0.19)

0.25
Male
(0.09–0.43)

Total
0.18
(0.07–0.31)

HIV incidence per 1000 uninfected population



New HIV infections

727
Adult
(15+ years)
(263–1,233)

211
Female
(15+ years)
(78–358)

19
Children
(<15 years)
(6–34)

Total
746
(268–1,268)

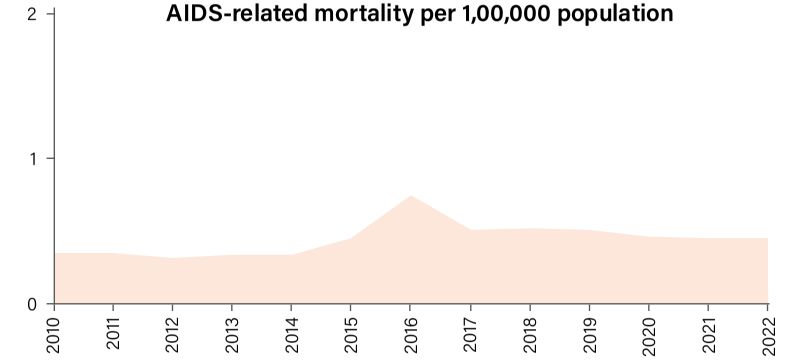
AIDS-related mortality per 1,00,000 population

0.25
Female
(0.11–0.51)

0.66
Male
(0.35–1.02)

Total
0.46
(0.24–0.73)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

14
Adult
(15+ years)
(8–22)

3
Female
(15+ years)
(1–5)

5
Children
(<15 years)
(1–11)

Total
19
(10–30)

Uttar Pradesh

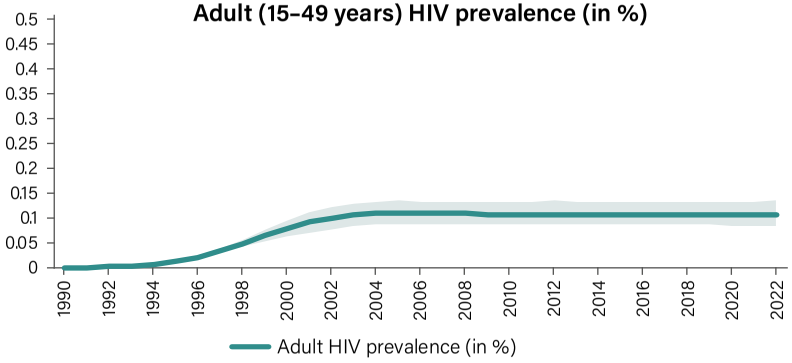
Adult (15–49 years) prevalence (in %)

0.08
Female
(0.06–0.11)

0.13
Male
(0.09–0.17)

Total
0.11
(0.08–0.14)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

1,89,161
Adult
(15+ years)
(1,41,372–2,42,657)

71,150
Female
(15+ years)
(53,740–90,816)

5,741
Children
(<15 years)
(4,243–7,341)

Total
1,94,902
(1,45,548–2,49,921)

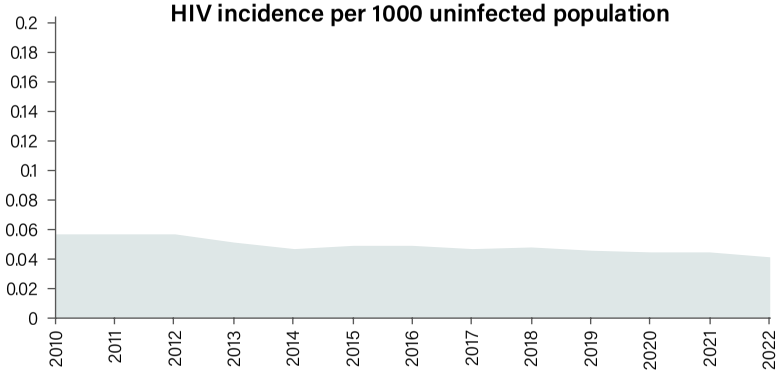
HIV incidence per 1000 uninfected population

0.03
Female
(0.02–0.05)

0.05
Male
(0.03–0.09)

Total
0.04
(0.02–0.07)

HIV incidence per 1000 uninfected population



New HIV infections

9,466
Adult
(15+ years)
(4,994–15,828)

3,144
Female
(15+ years)
(1,671–5,211)

417
Children
(<15 years)
(203–736)

Total
9,883
(5,216–16,605)

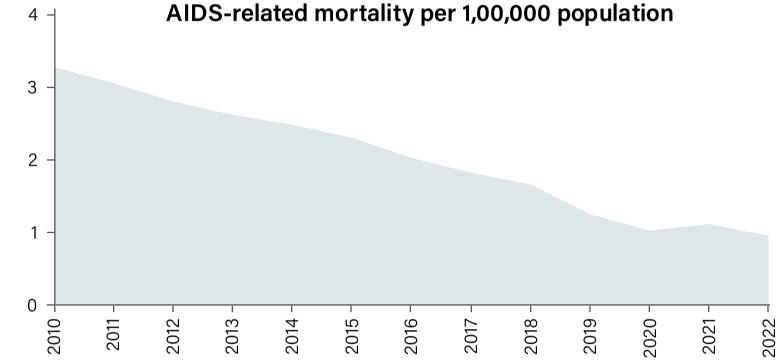
AIDS-related mortality per 1,00,000 population

0.32
Female
(0.15–0.65)

1.55
Male
(0.89–2.65)

Total
0.96
(0.55–1.71)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

2,112
Adult
(15+ years)
(1,215–3,682)

302
Female
(15+ years)
(141–593)

113
Children
(<15 years)
(51–359)

Total
2,225
(1,267–3,956)

Uttarakhand

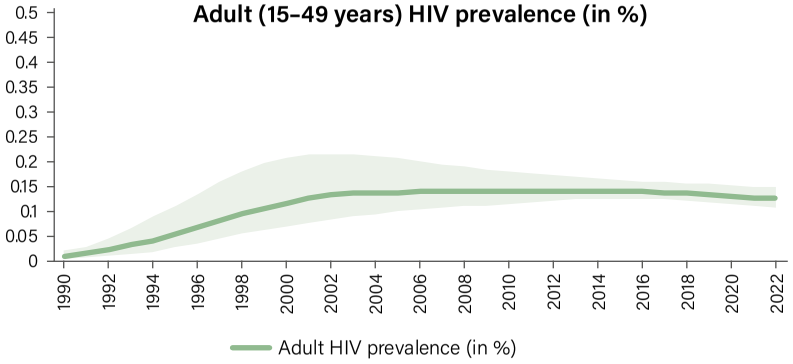
Adult (15–49 years) prevalence (in %)

0.11
Female
(0.09–0.13)

0.15
Male
(0.12–0.18)

Total
0.13
(0.11–0.15)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

11,845
Adult
(15+ years)
(9,921–14,048)

4,866
Female
(15+ years)
(4,036–5,751)

380
Children
(<15 years)
(317–439)

Total
12,224
(10,254–14,482)

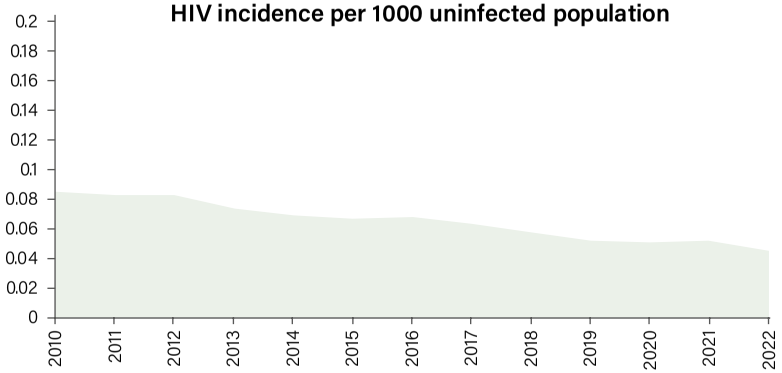
HIV incidence per 1000 uninfected population

0.04
Female
(0.02–0.06)

0.05
Male
(0.03–0.09)

Total
0.05
(0.03–0.07)

HIV incidence per 1000 uninfected population



New HIV infections

480
Adult
(15+ years)
(275–790)

190
Female
(15+ years)
(106–315)

36
Children
(<15 years)
(24–50)

Total
517
(301–841)

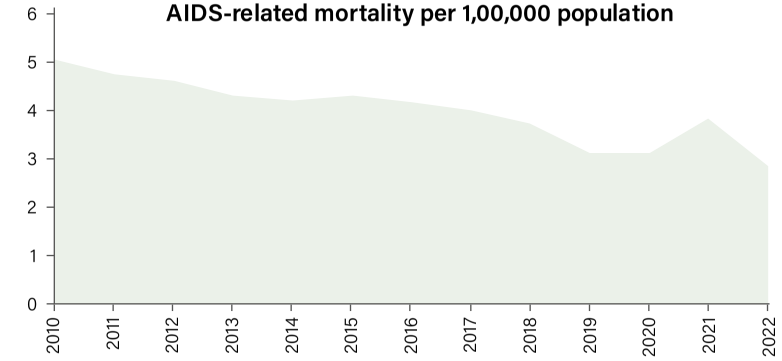
AIDS-related mortality per 1,00,000 population

2.27
Female
(1.38–3.21)

3.41
Male
(2.49–4.59)

Total
2.86
(1.98–3.87)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

309
Adult
(15+ years)
(217–419)

119
Female
(15+ years)
(71–168)

18
Children
(<15 years)
(10–25)

Total
327
(226–443)

West Bengal

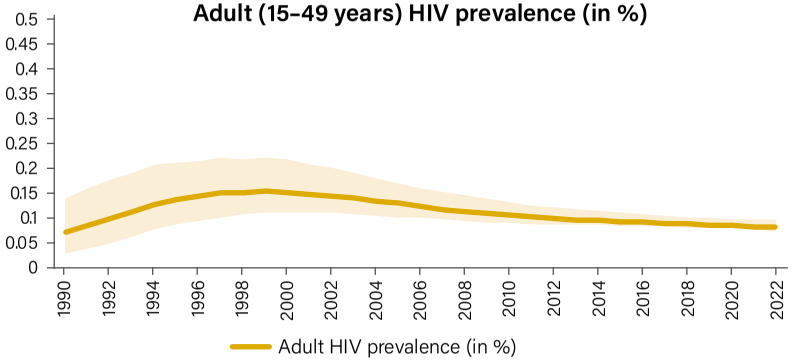
Adult (15–49 years) prevalence (in %)

0.08
Female
(0.07–0.9)

0.09
Male
(0.08–0.11)

Total
0.08
(0.07–0.10)

Adult (15–49 years) HIV prevalence (in %)



Number of people living with HIV

73,653
Adult
(15+ years)
(63,593–87,146)

32,724
Female
(15+ years)
(28,115–38,585)

2,445
Children
(<15 years)
(1,990–3,005)

Total
76,099
(65,640–89,888)

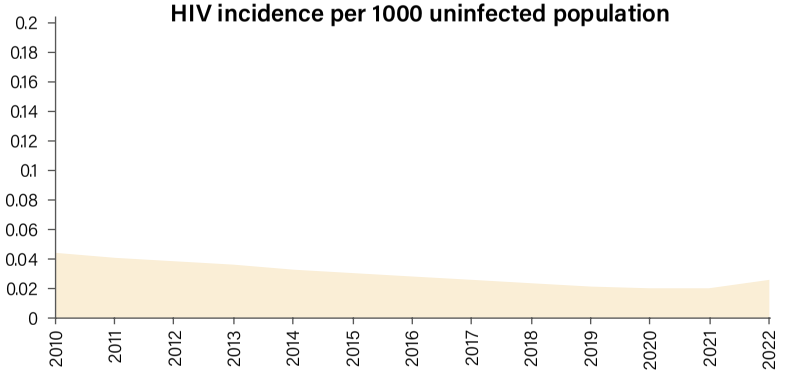
HIV incidence per 1000 uninfected population

0.03
Female
(0.02–0.05)

0.03
Male
(0.02–0.05)

Total
0.03
(0.02–0.05)

HIV incidence per 1000 uninfected population



New HIV infections

2,619
Adult
(15+ years)
(1,487–4,541)

1,236
Female
(15+ years)
(697–2,075)

112
Children
(<15 years)
(64–191)

Total
2,731
(1,564–4,750)

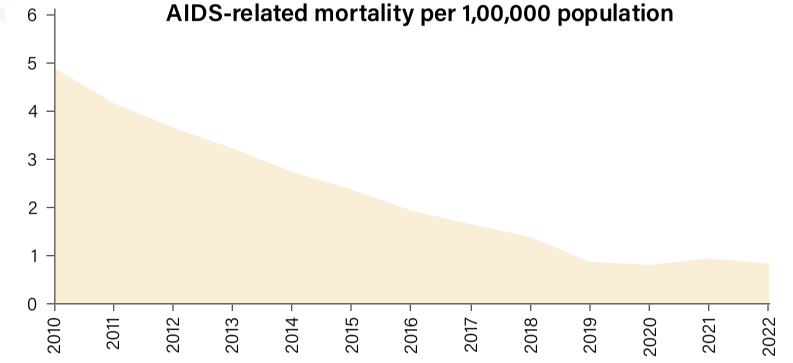
AIDS-related mortality per 1,00,000 population

0.91
Female
(0.49–1.56)

0.75
Male
(0.53–1.05)

Total
0.83
(0.56–1.26)

AIDS-related mortality per 1,00,000 population



Number of annual AIDS-related deaths

784
Adult
(15+ years)
(526–1,194)

425
Female
(15+ years)
(227–728)

30
Children
(<15 years)
(18–52)

Total
814
(549–1,240)

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Model-based periodic HIV estimations are undertaken under National AIDS and STD Control Programme to provide an update on the current status of the HIV epidemic on key epidemiological parameters of prevalence, incidence, AIDS-related mortality and EVTH-related need. HIV Estimations 2022 is the latest round in the series of HIV Estimations process. This report presents the method and State/UT-wise findings on key epidemiological parameters from HIV Estimations 2022.





NACO
National AIDS Control Organisation

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