



सत्यमेव जयते

India HIV Estimations 2015

TECHNICAL REPORT



National AIDS Control Organisation
India's voice against AIDS
Ministry of Health & Family Welfare
Government of India




National Institute of Medical Statistics
Indian Council of Medical Research
(Department of Health Research)
Ministry of Health & Family Welfare
Government of India

INDIA HIV ESTIMATIONS 2015

TECHNICAL REPORT

NATIONAL AIDS CONTROL ORGANISATION & NATIONAL INSTITUTE OF MEDICAL STATISTICS, ICMR
MINISTRY OF HEALTH & FAMILY WELFARE
GOVERNMENT OF INDIA



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FOREWORD

The National AIDS Control Programme (NACP) has a long history of generating strategic information to inform programming and policy development. Strategic information systems and activities have grown stronger over time. India has one of the largest and most robust HIV sentinel surveillance systems in the world. The National Integrated Biological & Behavioural Surveillance, implemented during 2014-15, is not only the largest bio-behavioural surveillance of its kind, but also a pioneer in aspects like use of technology in managing large-scale surveys, and has strengthened the system.

The National AIDS Control Organisation (NACO) is known for scientific rigour in generating strategic information. Institutional linkages with independent academics and research institutes have been fostered to support the programme with analysis of evidence at national and sub-national levels. The National Data Analysis Plan, which recently has been developed by NACO, is a first-of-its-kind activity for a public health programme, whereby data has been systematically shared, analysed, disseminated and published to address programmatic needs in collaboration with experts and specialists from various institutions. The tradition of ensuring timely use of data in collaboration with research institutes and experts has continued in the present round of estimations.

Over time, the quality of data from various sources has been enhanced and programme capacity for systematic analysis, synthesis, development and dissemination of various knowledge products has grown. Technical briefs and detailed analytical

reports from surveillance and estimations are periodically produced to help turn information into action. State and district level epidemiological and programme fact-sheets are made available with latest information to facilitate evidence-informed bottom-up planning and programme implementation.

The current estimates have not only used most up-to-date programme monitoring data, but also data from the latest HIV Sentinel Surveillance (HSS) among antenatal clinics attendees and the first ever nationwide Integrated Biological and Behavioural Surveillance conducted among high risk groups in 2014-15. The estimation process was guided, like in all earlier modelling rounds, by the National Institute of Medical Statistics (NIMS), Indian Council of Medical Research (ICMR). It has used globally recommended tools.

Consistent with NACO's policy for quick dissemination of information for evidence-based decision-making, this technical report presents the highlights of India's HIV Estimations 2015. I am hopeful that stakeholders will find it informative, not only to realize what we have achieved in the last 15 years, but also in guiding us in what needs to be done next to reach the sustainable development goal of ending HIV/AIDS as a public health threat by 2030.



B.P. Sharma
Secretary (HFW), MoHFW

PREFACE

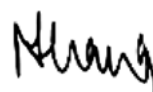
These new HIV Estimates were produced at a critical time when India is half way through the implementation of the fourth phase of the National AIDS Control Programme (NACP-IV). The findings hence are in time for taking stock of results achieved so far. They provide useful insights where efforts will have to be further accelerated to reach national and global targets in view of eliminating AIDS.

The estimates show that, while significant progress has been made in halting and reversing the epidemic, challenges still remain to be addressed through joint efforts and with renewed impetus. The Government of India recognises the importance of analysis, and use of evidence from epidemiological modelling and other sources, to guide the development and review of strategies and interventions to improve programmes. The utilization of strategic information at state, district and city level is especially recommended to tailor programme interventions to key vulnerabilities and specific needs. Evidence-based strategy design and planning at sub-national level is the key to accelerating progress in order to meet short, medium and long term targets which India is committed to reach.

The untiring work of members of the National Working Group on HIV Surveillance & Estimation has to be recognised, in particular that of its Chair Professor Arvind Pandey, Director, National Institute of Medical Statistics (ICMR) and Co-chair Dr. Neeraj Dhingra, Deputy Director General (Targeted Interventions/Monitoring & Evaluation), NACO. Technical guidance provided in this exercise by Professor DCS Reddy is gratefully acknowledged. Special

thanks go to UNAIDS not only for working with NACO's Strategic Information Team, but also for bringing international expertise on board to facilitate the completion of the current HIV Estimation process with highest possible technical rigour. Thanks also go to the All India Institute of Medical Sciences, New Delhi and the National Institute of Health & Family Welfare, New Delhi as well as to CDC India and WHO India, for their active involvement in the estimation process.

This report is being brought out at an opportune time when the Millennium Development Goal 6 has just been achieved in India and the country is gearing up for ending AIDS in the next 15 years. I hope the findings of these new HIV Estimations will act as a trigger to initiate discussions on how India can build upon country achievements to fast track progress to end the epidemic.



N.S. Kang

Additional Secretary & Director General
NACO, MoHFW

PREFACE

HIV estimations have regularly been undertaken in India since 1998, with these estimates replacing those developed in the last round of 2012. Improved methods and data that have become available since the last estimation round, were utilised to develop the present estimates. Refined assumptions used in the modelling, together with more solid data from surveillance and programme monitoring, have helped generate better quality of HIV estimates which will strengthen the understanding of the epidemic in the country as a whole and in different geographical areas. The use of globally vetted modelling instruments continues to ensure that India's estimates can be compared with estimates produced in other countries and can be utilised to generate regional and global HIV estimates.

In this estimation round the Spectrum 4.53 Beta19 tool was used together with the latest version of Spectrum (5.30) recommended by the Global Reference Group on Estimations, Projections and Modelling. Both these versions include the DemProj module as well as the AIDS Impact Module with an embedded Estimation and Projection Package (EPP) to estimate HIV prevalence and incidence.

The 2015 HIV Estimates confirm that the epidemic in India is overall declining. Decreasing trends in HIV prevalence, new HIV infections and AIDS-related deaths persist at national level. However, analysis of estimate results shows that the dynamics and patterns of the epidemic are not uniform across the country. They vary in different geographical areas and also differ somewhat from past findings largely because of changing dynamics and patterns

in the epidemic. In-depth analysis of data from this estimation process and from other sources will therefore be required to refocus and adjust programmes and tailor interventions to the changing needs in different local environments.

Further investigation into the situation of the epidemic in different States/Union Territories and districts of India, especially in geographic areas where current estimates show that challenges persist or are emerging, should be an important priority to be pursued by the NIMS/ICMR in close collaboration with NACO.

The efforts of the national and international experts involved in this estimation process, which has culminated with the publication of these results, should therefore not be considered complete. Work will have to be continued to further corroborate the estimation findings and to analyse them in combination with strategic information from other sources. Nonetheless, we present this publication at a crucial juncture when the globe is transitioning from Millennium Development Goals to Sustainable Development Goals. We are confident that policy makers, programme managers as well as academics will use this report extensively as we move ahead to achieve the end of AIDS.



Dr Arvind Pandey
Director, NIMS-ICMR

ACRONYMS

AIDS	Acquired Immune-Deficiency Syndrome
AIIMS	All India Institute of Medical Sciences, New Delhi
AIM	AIDS Impact Module
ANC	Antenatal Care
ARD	AIDS-Related Death
ART	Antiretroviral Therapy
CDC	Centers for Disease Control and Prevention
EPP	Estimation and Projection Package
HIV	Human Immunodeficiency Virus
HRG	High Risk Group
IBBS	Integrated Biological and Behavioural Surveillance
ICMR	Indian Council of Medical Research
NIHFW	National Institute of Health & Family Welfare, New Delhi
NACO	National AIDS Control Organisation
NACP	National AIDS Control Programme
NFHS	National Family Health Survey
NIMS	National Institute of Medical Statistics
PLHIV	People Living with HIV
PPTCT	Prevention of Parent to Child Transmission
TRG	Technical Resource Group
UT	Union Territory
UNAIDS	Joint United Nations Programme on HIV/AIDS
WHO	World Health Organisation

India HIV Estimations 2015

TECHNICAL REPORT

OVERVIEW

National AIDS Control Organisation (NACO), Ministry of Health and Family Welfare, Government of India periodically undertakes HIV estimations to provide the updated information on the status of HIV epidemic in India. The first HIV estimation in India was done in 1998, while the last round was done in 2012. India HIV Estimates 2015, latest round in the series, provides the current status of the HIV epidemic in the country and the States/ Union Territories (UTs) on key parameters of HIV prevalence, numbers of people living with HIV (PLHIV), new HIV infections, AIDS-related mortality and treatment needs.

The exercise was carried out by independent experts under the guidance of the National Institute of Medical Statistics Indian Council of Medical Research. The experts were drawn from NACO, AIIMS (New Delhi), NIIFW (New Delhi), UNAIDS, WHO, CDC and other organisations. The results were finalised after a series of consultation meetings of the National Working Group (NWG) on Surveillance & Estimation over a period of around eight months. The results generated were approved after being critically reviewed by the National Technical Resource Group (TRG) on HIV Surveillance & Estimation comprising national and international experts.

TOOLS AND METHODOLOGY

The 2015 round of HIV estimation in India was done using globally recommended modelling techniques, as in the past. It built upon the

previous round of HIV estimations that was done using Spectrum 4.53 Beta 19 version and used the latest version of Spectrum (5.30) to finalize the process. Specifically, DemProj (Demographic Projection) and AIM (AIDS Impact Module) modules of the Spectrum tool were used during the process. The Estimation and Projection Package (EPP), which is integrated in the AIM module, has been used to generate incidence curves from time series surveillance data to be employed in the estimation process.

The first step in the process was to update the demographic projections from 1981 to 2021 in the model for each of the 34 States/UTs by using the DemProj module of Spectrum. The projections were updated based on data from various national censuses including the last of 2011 as well as data from the Sample Registration System and several rounds of the National Family Health Survey (NFHS). Population size and structure for each year in the 1981-2021 period were projected as well as population by age and sex, total fertility rate, age-specific distribution of fertility, sex ratio at birth, life expectancy at birth by sex, age-specific mortality and migration by age and sex.

In the next step, the AIM module was used to update data inputs on several programmatic and epidemiological parameters. Treatment eligibility criteria, numbers of adults and children on antiretroviral therapy (ART) as well as number of pregnant women receiving antiretroviral (ARV) prophylaxis for the prevention of parent to child transmission (PPTCT) were defined in each of the models. Epidemiological data were also updated with inclusion in the models of data from the thirteenth and fourteenth round of HIV Sentinel Surveillance (HSS) among antenatal clinic (ANC) attendees (2013 and 2015 round). For high risk

groups (HRG), including female sex workers, men who have sex with men and people who inject drugs, size estimates and HIV prevalence were maintained as set in the previous estimation round of 2012.

After updating the demographic, programmatic and epidemiological inputs, HIV prevalence curves for 34 States/UTs (excluding Lakshadweep) were generated for each of the population sub-groups. Erstwhile Andhra Pradesh was considered as one state for the estimation exercise. However, sub-epidemics were created within the state to describe the epidemic status in the new Andhra Pradesh and Telangana.

The prevalence curve for the general population for all States/UTs was calibrated for the year 2006 with the prevalence estimates from the third NFHS (2005-06) as was done in earlier rounds of estimation. Curves for HRG for all States/UTs were calibrated for the year 2015 with the prevalence estimates from the IBBS carried out in 2014-15. State level prevalence and incidence curves were later processed in Spectrum 5.30 to produce estimates for HIV prevalence, numbers of people living with HIV, new HIV infections, AIDS-related deaths as well as treatment needs.

The results of India HIV Estimations 2015 replace those of previous estimation rounds and data on the trends in the epidemic as well as programme needs including for the period from 2007 to 2011 covered earlier by the 2012 estimates. Regular revisions in estimates are necessary as evidence and knowledge expand and new data become available, which both contribute to improvements in modelling assumptions and outcomes.

KEY RESULTS

Key highlights from the HIV Estimation 2015 are presented in the sections below.

I. ADULT HIV PREVALENCE (15-49 YEARS)

National adult (15–49 years) HIV prevalence is estimated at 0.26% (0.22%–0.32%) in 2015. In 2015, adult HIV prevalence is estimated at 0.30% among males and at 0.22% among females (Table 1).

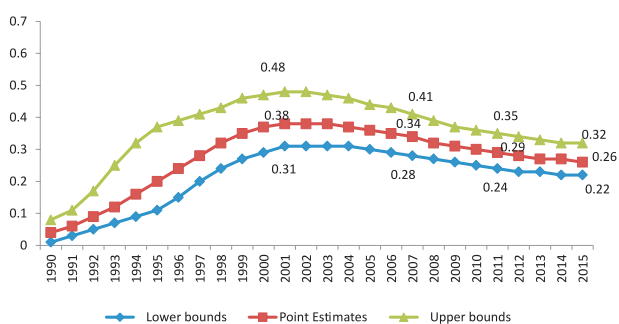
Among the States/UTs, in 2015, Manipur has shown the highest estimated adult HIV prevalence of 1.15%, followed by Mizoram (0.80%), Nagaland (0.78%), Andhra Pradesh & Telangana (0.66%), Karnataka (0.45%), Gujarat (0.42%) and Goa (0.40%) (Table 2). Besides these States, Maharashtra, Chandigarh, Tripura and Tamil Nadu have shown estimated adult HIV prevalence greater than the national prevalence (0.26%), while Odisha, Bihar, Sikkim, Delhi, Rajasthan and West Bengal have shown an estimated adult HIV prevalence in the range of 0.21–0.25%. All other States/UTs have levels of adult HIV prevalence below 0.20%.

The adult HIV prevalence at national level has continued its steady decline from an estimated peak of 0.38% in 2001-03 through 0.34% in 2007 and 0.28% in 2012 to 0.26% in 2015 (Figure 1). Similar consistent declines are noted both in males and in females at the national level.

Declining trends in adult HIV prevalence are sustained in all of the high prevalence States (Andhra Pradesh & Telangana, Karnataka, Maharashtra, Manipur, Nagaland and Tamil Nadu) and other States such as Goa, Odisha

and West Bengal (Table 2). Stable adult HIV prevalence has been noted in States such as Bihar, Chhattisgarh, Gujarat, Mizoram, Rajasthan and Uttar Pradesh. However, rising trends in adult HIV prevalence has been observed in some of the hitherto relatively low prevalence States/UTs like Assam, Chandigarh, Delhi, Jharkhand, Punjab, Tripura and Uttarakhand.

Figure 1. Adult HIV Prevalence (%) in India, 1990–2015 with Uncertainty Bounds



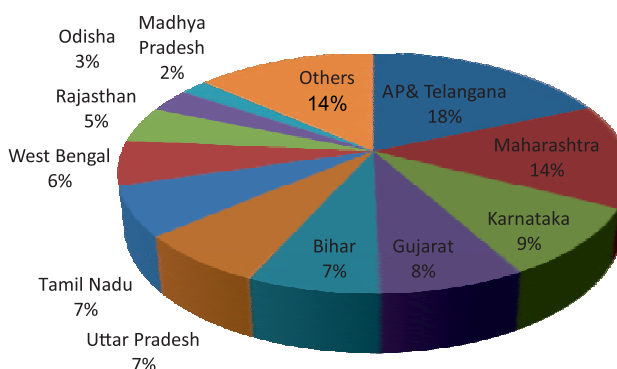
II. PEOPLE LIVING WITH HIV

The total number of people living with HIV (PLHIV) in India is estimated at 21.17 lakhs (17.11 lakhs–26.49 lakhs) in 2015 compared with 22.26 lakhs (18.00 lakhs–27.85 lakhs) in 2007. Children (< 15 years) account for 6.54%, while two fifth (40.5%) of total HIV infections are among females.

Undivided Andhra Pradesh and Telangana have the highest estimated number of PLHIV (3.95 lakhs) followed by Maharashtra (3.01 lakhs), Karnataka (1.99 lakhs), Gujarat (1.66 lakhs), Bihar (1.51 lakhs) and Uttar Pradesh (1.50 lakhs). These seven States together account for two thirds (64.4%) of total estimated PLHIV (Figure 2). Rajasthan (1.03 lakhs), Tamil Nadu (1.43 lakhs) and West Bengal (1.29 lakhs) are other States

with estimated PLHIV numbers of 1 lakh or more. The estimated number of PLHIV in India has been more or less stable during 2013–15 (Table 3).

Figure 2. Distribution of PLHIV in Select States, 2015



III. ANNUAL NEW HIV INFECTIONS

India is estimated to have around 86 (56–129) thousand new HIV infections in 2015 (Table 1), showing 66% decline in new infections from 2000 and 32% decline from 2007, the year set as baseline in the NACP-IV (Figure 3). Children (<15 years) accounted for 12% (10.4 thousand) of total new infections while the remaining (75.9 thousand) new infections were among adults (15+years).

Andhra Pradesh & Telangana, Bihar, Gujarat and Uttar Pradesh currently account for 47% of total new infections among adults with each of the these States contributing 7.5 thousand or more new infections in 2015 (Figure 4, Table 4). West Bengal and Rajasthan have more than 5 thousand but less than 7.5 thousand new infections, while Maharashtra, Odisha and Tamil Nadu have new infections in the range of 3–4 thousand. Chhattisgarh, Delhi, Haryana, Jharkhand, Karnataka, Madhya Pradesh and

Punjab have 1-2.4 thousand new infections among adults and the rest of the States/UTs have less than 1 thousand new adult HIV infections in 2015.

Figure 3. Estimated New HIV Infections in India, 1998–2015

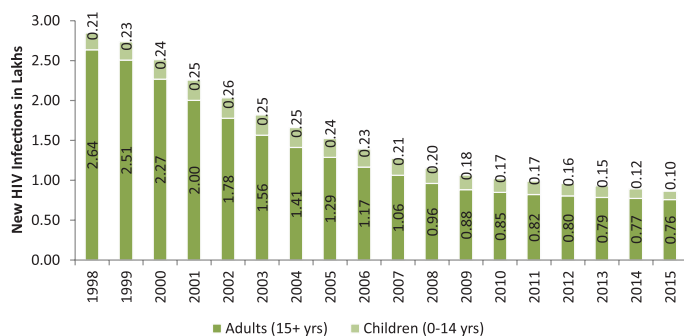
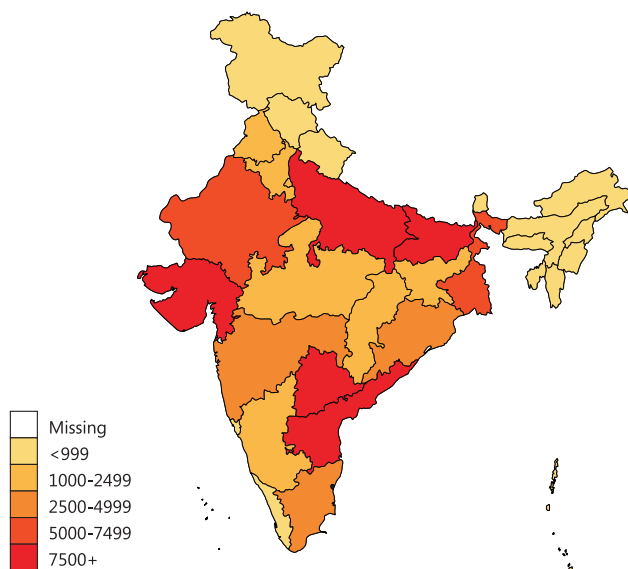


Figure 4. State Wise Estimated New HIV Infections among Adults, 2015



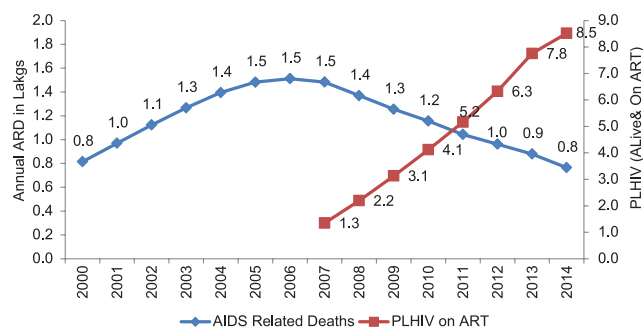
A clear decline in new infections, as noticed at national level, has been also observed in most of the States/UTs. New infections among adults have declined by 50% or more in the States of Andhra Pradesh & Telangana, Karnataka, Maharashtra, Manipur and Odisha during 2007-15. Bihar, Jharkhand, Kerala, Mizoram, Nagaland, Rajasthan and Uttarakhand are the other States where annual adult new infections declined by 32-47% during the same period. However, a rising trend in new infections among

adults during 2007-15 has been detected in Assam, Chandigarh, Chhattisgarh, Gujarat, Sikkim, Tripura and Uttar Pradesh.

IV. AIDS-RELATED DEATHS

Since 2007, when the number of AIDS-related deaths (ARD) started to show a declining trend, the annual number of AIDS-related deaths has declined by 54%. In 2015 an estimated 67.6 [46.4–106.0] thousand people died of AIDS-related causes nationally (Figure 5, Table 5). This decline is consistent with the rapid expansion of access to ART in the country. It is estimated that the scale-up of free ART since 2004 has saved cumulatively around 4.5 lakhs lives in India until 2014.

Figure 5. Annual AIDS-Related Deaths and ART Scale-up, India, 2000-14



The annual number of AIDS-deaths has declined by 70-81% during 2007-15 in Karnataka, Maharashtra and Tamil Nadu. Annual AIDS-related deaths declined by 60-70% from the baseline values of 2007 in Andhra Pradesh & Telangana, Goa, Himachal Pradesh and Nagaland while a decline of 40-47% was estimated in Chhattisgarh, Gujarat and Punjab.

V. ESTIMATED PROGRAMME NEEDS FOR ART AND PPTCT

Based on the assumptions on progression and survival of adults and children infected with HIV as well as current treatment eligibility criteria, it is estimated that around

13.45 lakhs PLHIV needed ART in 2015 (Table 1). This includes 12.71 lakhs adults (15+ years) and 75 thousand children (<15 years). More than half of this estimated need is in the high burden States of Andhra Pradesh & Telangana (2.6 lakhs), Karnataka (1.4 lakhs), Maharashtra (2.3 lakhs), and Tamil Nadu (1.1 lakhs). Bihar (79.9 thousand), Gujarat (92.6 thousand), Rajasthan (57.9 thousand), Uttar Pradesh (79.9 thousand) and West Bengal (71 thousand) are other States with an estimated ART need of 50 thousand or more (Table 6).

Based on the estimated HIV infections among adult females and assumptions on the effect of HIV on fertility and parent to child transmission rates, it is estimated that around 35 thousand HIV-positive pregnant women needed PPTCT services in 2015 (Table 7). The overall number of pregnant women needing PPTCT has declined in the country from 52.8 thousand in 2007 to 35 thousand in 2015. Twelve States, including Andhra Pradesh & Telangana, Bihar, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal, account for 88% of all PPTCT needs in the country.

CONCLUSIONS

2015 HIV Estimates results reaffirm the country's success story in responding to HIV/AIDS epidemic. India has successfully achieved the 6th Millennium Development Goal (MDG 6) of halting and reversing the HIV epidemic. Between 2000 and 2015, new HIV infections dropped from 2.51 lakhs to 86 thousand, a reduction of 66% against a global average of 35%¹.

While reduction of new infections is testimony of impact of prevention programmes, India has also demonstrated progress in halting and reversing the number of AIDS-related deaths by expanding care, support and treatment services at an incredible pace after initiation of treatment in April 2004. By 2007, AIDS-related deaths started to decline, falling by 54% from 2007 to 2015 against a global average of 41% decline during 2005-15². India has managed to achieve MDG 6 because it has pioneered evidence-informed responses to the epidemic and has provided a comprehensive package of prevention as well as treatment services.

However, results of the new estimates presented in this technical report, show that there remain a number of challenges ahead. The pace of reductions in new HIV infections has decreased indicating greater prevention efforts will be required to change the epidemic trajectory further. This is a necessary condition if NACP-IV's prevention targets are to be reached by 2017. Rising or stabilising epidemics in some of India's States/UTs and insufficient decreases in key indicators such as new infections and AIDS-related deaths in other States are also a source of concern. These trends and patterns in the epidemic need to be investigated at state and district level by analysing the new estimates in conjunction with data from programme monitoring, surveillance, evaluations and research.

Triangulation and analysis of data from different sources, especially at state and district level, will allow drawing useful lessons on what works in programmes and what instead needs improvement. Understanding the epidemic at the local level (i.e. at the inter-state and intra-state levels) will provide useful insights on what needs to be done to consolidate achievements and accelerate progress towards the elimination of new infections and AIDS-related deaths.

¹ UNAIDS. *How AIDS Changed Everything*; 2015.

² UNAIDS. *Press Release: UNAIDS announces that the goal of 15 million people on life-saving HIV treatment by 2015 has been met nine months ahead of schedule*; July 14, 2015.

ANNEX-1

List of Tables

Table 1. National Estimates of Key Indicators with Uncertainty Bounds, 2007-2015

Indicators	2007			2008			2009		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Estimated No. of PLHIV									
India	17,99,922	22,25,930	27,84,682	17,80,726	21,98,559	27,42,886	17,64,324	21,74,594	27,08,941
Adults (15+)		20,99,698			20,67,808			20,40,020	
Children (<15)		1,26,232			1,30,751			1,34,574	
Male		13,89,133			13,65,102			13,42,940	
Female		8,36,797			8,33,457			8,31,654	
Estimated Adult Prevalence (%)									
Total	0.28	0.34	0.41	0.27	0.32	0.39	0.26	0.31	0.37
Male		0.40			0.39			0.37	
Female		0.26			0.25			0.24	
Estimated No. of Annual New HIV Infections									
Total	94,705	1,27,576	1,68,549	85,652	1,15,648	1,54,640	78,113	1,06,601	1,44,180
Adults (15+)		1,06,335			96,124			88,234	
Children (<15)		21,241			19,524			18,367	
Estimated No. of Annual AIDS-related Deaths									
Total	1,06,757	1,48,309	2,72,043	97,220	1,36,981	2,55,449	92,431	1,25,522	2,02,800
Adults (15+)		1,36,264			1,25,441			1,14,476	
Children (<15)		12,045			11,540			11,046	
Estimated ART Need									
Adults (15+)	2,36,275	3,94,654	6,98,580	2,69,830	4,34,495	7,43,300	4,41,620	6,38,566	9,82,684
Children (<15)	38,946	47,990	59,550	39,517	47,998	58,912	42,835	51,055	61,674
Estimated No. of Mothers needing PPTCT									
Mothers needing PPTCT	41,208	52,806	67,575	38,693	49,348	63,365	36,610	46,740	60,255

*Excluding Lakshadweep

Table 1. National Estimates of Key Indicators with Uncertainty Bounds, 2007-2015 (Cont....)

Indicators	2010			2011			2012		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
India	17,50,111	21,56,452	26,85,233	17,43,515	21,46,839	26,70,728	17,39,599	21,43,446	26,72,203
Adults (15+)		20,19,457			20,08,213			20,04,012	
Children (<15)		1,36,995			1,38,626			1,39,434	
Male		13,23,853			13,09,355			12,98,621	
Female		8,32,599			8,37,484			8,44,825	
Estimated Adult Prevalence (%)									
Total	0.25	0.30	0.36	0.24	0.29	0.35	0.23	0.28	0.34
Male		0.35			0.34			0.33	
Female		0.24			0.23			0.23	
Estimated No. of Annual New HIV Infections									
Total	73,374	1,02,226	1,40,090	69,799	98,974	1,37,234	66,461	96,213	1,36,000
Adults (15+)		84,827			82,100			80,458	
Children (<15)		17,399			16,874			15,755	
Estimated No. of Annual AIDS-related Deaths									
Total	84,845	1,15,608	1,96,617	76,139	1,04,327	1,78,877	65,991	96,189	1,37,932
Adults (15+)		1,04,914			93,953			86,283	
Children (<15)		10,694			10,374			9,906	
Estimated ART Need									
Adults (15+)	4,83,064	6,87,931	10,40,852	5,28,599	7,42,587	11,02,885	9,33,869	11,22,337	12,92,086
Children (<15)	47,052	55,054	65,119	50,259	57,941	67,537	55,088	63,177	73,300
Estimated No. of Mothers needing PPTCT									
Mothers needing PPTCT	34,543	44,327	56,721	33,949	43,064	55,119	31,852	40,922	52,413

Table 1. National Estimates of Key Indicators with Uncertainty Bounds, 2007-2015 (Cont....)

Indicators	2013			2014			2015		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
India	17,24,204	21,27,958	26,57,811	17,15,849	21,19,881	26,49,511	17,11,009	21,16,581	26,49,302
Adults (15+)		19,86,943			19,79,421			19,78,125	
Children (<15)		1,41,015			1,40,460			1,38,456	
Male		12,80,875			12,68,470			12,60,094	
Female		8,47,083			8,51,411			8,56,487	
Estimated Adult Prevalence (%)									
Total	0.23	0.27	0.33	0.22	0.27	0.32	0.22	0.26	0.32
Male		0.32			0.31			0.30	
Female		0.23			0.22			0.22	
Estimated No. of Annual New HIV Infections									
Total	63,018	93,119	1,33,971	58,924	89,222	1,31,117	55,990	86,309	1,28,641
Adults (15+)		78,613			77,351			75,948	
Children (<15)		14,506			11,871			10,361	
Estimated No. of Annual AIDS-related Deaths									
Total	64,106	87,946	1,24,010	55,889	76,494	1,11,175	46,383	67,612	1,06,034
Adults (15+)		78,545			67,918			60,086	
Children (<15)		9,401			8,576			7,526	
Estimated ART Need									
Adults (15+)	9,92,355	11,59,243	13,42,889	10,72,698	12,31,983	14,21,984	10,96,646	12,70,678	14,87,631
Children (<15)	60,297	69,108	80,143	63,678	72,531	83,499	65,660	74,220	84,453
Estimated No. of Mothers needing PPTCT									
Mothers needing PPTCT	30,423	38,762	49,579	28,874	36,941	47,569	27,351	35,255	45,965

Table 2. Estimated Adult (15-49 years) HIV Prevalence (%) by States/UTs with Uncertainty Bounds, 2007-2015

States/UT	2007			2008			2009			2010			2011		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Andhra Pradesh & Telangana	0.83	0.94	1.08	0.79	0.90	1.02	0.76	0.85	0.97	0.72	0.81	0.92	0.69	0.77	0.87
Arunachal Pradesh	0.01	0.06	0.12	0.02	0.06	0.13	0.02	0.07	0.13	0.02	0.07	0.13	0.02	0.07	0.13
Assam	0.02	0.04	0.05	0.02	0.04	0.06	0.03	0.04	0.06	0.03	0.05	0.06	0.04	0.05	0.07
Bihar	0.20	0.26	0.32	0.21	0.26	0.32	0.21	0.27	0.33	0.21	0.27	0.33	0.21	0.27	0.32
Chhattisgarh	0.15	0.20	0.25	0.15	0.19	0.25	0.14	0.19	0.24	0.14	0.18	0.24	0.14	0.18	0.23
Delhi	0.06	0.18	0.45	0.07	0.19	0.46	0.07	0.20	0.47	0.08	0.21	0.47	0.08	0.22	0.48
Goa	0.28	0.60	1.46	0.27	0.56	1.37	0.25	0.53	1.30	0.24	0.50	1.22	0.23	0.48	1.15
Gujarat	0.33	0.41	0.49	0.32	0.40	0.48	0.32	0.40	0.47	0.32	0.40	0.47	0.32	0.40	0.48
Himachal Pradesh	0.11	0.14	0.21	0.10	0.14	0.20	0.10	0.13	0.20	0.09	0.13	0.19	0.09	0.13	0.19
Haryana	0.07	0.11	0.21	0.08	0.11	0.21	0.08	0.12	0.21	0.08	0.12	0.20	0.09	0.12	0.20
Jharkhand	0.09	0.13	0.18	0.11	0.15	0.20	0.12	0.16	0.21	0.12	0.16	0.21	0.13	0.17	0.22
Jammu & Kashmir	0.02	0.03	0.05	0.02	0.03	0.05	0.02	0.04	0.05	0.03	0.04	0.05	0.03	0.04	0.05
Karnataka	0.61	0.68	0.78	0.57	0.64	0.73	0.53	0.59	0.68	0.50	0.56	0.64	0.47	0.53	0.61
Kerala	0.11	0.15	0.20	0.10	0.14	0.20	0.10	0.13	0.19	0.09	0.13	0.18	0.09	0.12	0.17
Meghalaya	0.01	0.06	0.29	0.01	0.06	0.26	0.02	0.06	0.24	0.02	0.06	0.22	0.02	0.06	0.20
Maharashtra	0.51	0.60	0.71	0.47	0.55	0.65	0.44	0.51	0.59	0.41	0.47	0.56	0.38	0.44	0.52
Manipur	1.55	1.94	2.50	1.48	1.85	2.40	1.41	1.76	2.30	1.32	1.66	2.16	1.23	1.55	2.03
Madhya Pradesh	0.10	0.12	0.14	0.10	0.11	0.14	0.09	0.11	0.13	0.09	0.11	0.13	0.09	0.10	0.12
Mizoram	0.57	0.80	1.11	0.56	0.80	1.09	0.55	0.79	1.09	0.55	0.79	1.09	0.55	0.79	1.10
Nagaland	0.72	0.98	1.31	0.70	0.95	1.27	0.68	0.92	1.24	0.66	0.90	1.20	0.64	0.87	1.17
Odisha	0.24	0.30	0.38	0.24	0.30	0.38	0.24	0.30	0.37	0.24	0.30	0.37	0.23	0.29	0.36
Punjab	0.11	0.15	0.22	0.12	0.15	0.22	0.13	0.16	0.22	0.13	0.17	0.23	0.14	0.17	0.23
Rajasthan	0.16	0.22	0.30	0.17	0.23	0.31	0.17	0.24	0.31	0.18	0.24	0.31	0.17	0.24	0.31
Sikkim	0.02	0.10	0.66	0.02	0.11	0.64	0.02	0.12	0.62	0.02	0.13	0.61	0.02	0.15	0.61
Tamil Nadu	0.32	0.37	0.45	0.30	0.35	0.42	0.28	0.33	0.40	0.27	0.32	0.38	0.26	0.31	0.37
Tripura	0.01	0.15	0.42	0.01	0.16	0.45	0.02	0.18	0.50	0.02	0.20	0.55	0.02	0.21	0.61
Uttarakhand	0.04	0.08	0.13	0.04	0.09	0.14	0.05	0.10	0.15	0.06	0.10	0.15	0.06	0.10	0.15
Uttar Pradesh	0.11	0.13	0.15	0.11	0.12	0.14	0.11	0.12	0.14	0.10	0.12	0.14	0.10	0.12	0.14
West Bengal	0.23	0.29	0.37	0.22	0.28	0.35	0.21	0.27	0.33	0.20	0.25	0.31	0.19	0.24	0.30
Andaman & Nicobar Islands	0.06	0.11	0.25	0.06	0.10	0.24	0.06	0.10	0.23	0.05	0.09	0.22	0.05	0.08	0.21
Chandigarh	0.03	0.22	0.89	0.03	0.24	0.97	0.04	0.26	1.06	0.04	0.27	1.15	0.05	0.29	1.24
Dadra & Nagar Haveli	0.02	0.08	0.53	0.02	0.09	0.55	0.03	0.10	0.58	0.04	0.11	0.64	0.04	0.12	0.67
Daman & Diu	0.00	0.06	0.38	0.00	0.07	0.38	0.00	0.08	0.41	0.01	0.09	0.42	0.01	0.09	0.45
Puducherry	0.10	0.19	0.41	0.10	0.18	0.40	0.10	0.18	0.39	0.09	0.17	0.38	0.09	0.17	0.37
India*	0.28	0.34	0.41	0.27	0.32	0.39	0.26	0.31	0.37	0.25	0.30	0.36	0.24	0.29	0.35

*Excluding Lakshadweep

Table 2. Estimated Adult (15-49 years) HIV Prevalence (%) by States/UTs with Uncertainty Bounds, 2007-2015 (Cont...)

States/UT	2012			2013			2014			2015		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Andhra Pradesh & Telangana	0.67	0.74	0.83	0.64	0.71	0.79	0.62	0.68	0.76	0.60	0.66	0.73
Arunachal Pradesh	0.03	0.07	0.13	0.03	0.07	0.13	0.04	0.07	0.13	0.04	0.07	0.13
Assam	0.04	0.05	0.07	0.04	0.06	0.07	0.04	0.06	0.08	0.04	0.06	0.08
Bihar	0.21	0.27	0.32	0.21	0.26	0.32	0.21	0.26	0.31	0.20	0.25	0.31
Chhattisgarh	0.13	0.18	0.23	0.13	0.18	0.23	0.13	0.18	0.24	0.13	0.19	0.24
Delhi	0.09	0.22	0.49	0.09	0.22	0.50	0.09	0.23	0.50	0.10	0.23	0.50
Goa	0.22	0.45	1.09	0.21	0.43	1.04	0.20	0.41	1.01	0.19	0.40	1.01
Gujarat	0.32	0.40	0.48	0.32	0.41	0.49	0.33	0.41	0.50	0.33	0.42	0.50
Himachal Pradesh	0.09	0.13	0.19	0.09	0.12	0.19	0.09	0.12	0.19	0.09	0.12	0.19
Haryana	0.09	0.13	0.20	0.09	0.13	0.19	0.09	0.13	0.19	0.09	0.13	0.19
Jharkhand	0.13	0.17	0.22	0.13	0.17	0.22	0.13	0.17	0.22	0.13	0.17	0.22
Jammu & Kashmir	0.03	0.04	0.05	0.03	0.04	0.05	0.03	0.03	0.05	0.03	0.03	0.05
Karnataka	0.45	0.51	0.59	0.43	0.49	0.57	0.41	0.47	0.54	0.39	0.45	0.52
Kerala	0.09	0.12	0.16	0.08	0.11	0.16	0.08	0.11	0.15	0.08	0.11	0.15
Meghalaya	0.02	0.06	0.19	0.02	0.06	0.19	0.02	0.06	0.17	0.02	0.06	0.16
Maharashtra	0.36	0.42	0.50	0.35	0.40	0.48	0.33	0.39	0.46	0.31	0.37	0.44
Manipur	1.14	1.45	1.92	1.05	1.34	1.78	0.96	1.24	1.67	0.88	1.15	1.55
Madhya Pradesh	0.08	0.10	0.12	0.08	0.10	0.12	0.08	0.10	0.11	0.08	0.09	0.11
Mizoram	0.55	0.80	1.13	0.55	0.80	1.15	0.54	0.80	1.18	0.55	0.80	1.22
Nagaland	0.62	0.84	1.14	0.60	0.82	1.12	0.57	0.80	1.10	0.56	0.78	1.08
Odisha	0.22	0.28	0.35	0.21	0.27	0.34	0.21	0.26	0.33	0.20	0.25	0.32
Punjab	0.15	0.18	0.24	0.15	0.19	0.24	0.15	0.19	0.24	0.16	0.19	0.24
Rajasthan	0.17	0.24	0.30	0.17	0.23	0.30	0.17	0.23	0.30	0.16	0.23	0.30
Sikkim	0.03	0.17	0.65	0.03	0.19	0.68	0.03	0.21	0.71	0.04	0.23	0.75
Tamil Nadu	0.26	0.30	0.36	0.25	0.30	0.35	0.24	0.29	0.35	0.23	0.28	0.34
Tripura	0.03	0.24	0.68	0.03	0.26	0.74	0.04	0.28	0.83	0.05	0.31	0.89
Uttarakhand	0.06	0.11	0.16	0.07	0.11	0.16	0.07	0.11	0.16	0.07	0.11	0.17
Uttar Pradesh	0.10	0.12	0.14	0.10	0.12	0.14	0.10	0.12	0.14	0.10	0.12	0.14
West Bengal	0.18	0.23	0.29	0.17	0.22	0.28	0.17	0.21	0.27	0.16	0.21	0.26
Andaman & Nicobar Islands	0.05	0.08	0.20	0.04	0.08	0.19	0.04	0.07	0.19	0.04	0.07	0.18
Chandigarh	0.05	0.30	1.29	0.05	0.31	1.35	0.06	0.33	1.42	0.07	0.35	1.52
Dadra & Nagar Haveli	0.05	0.14	0.75	0.06	0.15	0.81	0.06	0.17	0.85	0.06	0.18	0.93
Daman & Diu	0.01	0.11	0.49	0.01	0.12	0.52	0.01	0.13	0.56	0.01	0.14	0.61
Puducherry	0.09	0.16	0.37	0.09	0.16	0.36	0.08	0.16	0.36	0.08	0.15	0.35
India*	0.23	0.28	0.34	0.23	0.27	0.33	0.22	0.27	0.32	0.22	0.26	0.32

Table 3. Number of HIV Infections (PLHIV- Adult & Children) by States/UTs with Uncertainty Bounds, 2007-2015

States/UT	2007			2008			2009		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Andhra Pradesh & Telangana	4,07,488	4,72,753	5,44,245	3,98,307	4,60,908	5,28,604	3,89,679	4,49,502	5,13,948
Arunachal Pradesh	106	419	891	126	463	918	147	500	947
Assam	3,697	6,211	8,810	4,257	6,916	9,681	4,843	7,635	10,584
Bihar	91,981	1,22,573	1,55,808	1,00,641	1,30,821	1,64,670	1,06,653	1,36,979	1,71,506
Chhattisgarh	20,569	27,237	34,694	20,631	27,379	34,781	20,826	27,634	35,137
Delhi	5,979	17,799	47,571	6,733	19,359	50,007	7,577	20,937	52,453
Goa	2,550	5,520	13,727	2,442	5,253	12,974	2,353	5,025	12,358
Gujarat	1,11,165	1,42,206	1,71,053	1,12,098	1,42,551	1,71,217	1,13,367	1,44,004	1,72,900
Himachal Pradesh	4,008	5,666	8,441	3,955	5,567	8,323	3,900	5,485	8,126
Haryana	9,936	15,380	32,215	10,763	16,471	32,894	11,613	17,478	33,652
Jharkhand	14,615	21,642	30,270	17,042	24,424	33,076	19,425	26,895	35,960
Jammu & Kashmir	1,264	2,164	3,499	1,431	2,320	3,536	1,589	2,440	3,633
Karnataka	2,11,512	2,44,500	2,83,531	2,03,217	2,34,191	2,71,059	1,95,965	2,25,665	2,60,214
Kerala	19,561	27,945	40,021	19,296	27,325	39,257	18,951	26,580	37,849
Meghalaya	212	874	4,749	228	912	4,663	239	949	4,511
Maharashtra	3,27,667	3,91,464	4,76,311	3,09,450	3,69,793	4,48,253	2,95,501	3,51,924	4,27,311
Manipur	23,833	30,399	39,872	23,690	30,152	39,745	23,415	29,718	39,227
Madhya Pradesh	37,064	44,664	54,069	37,118	44,735	53,982	37,068	44,617	53,785
Mizoram	3,293	4,725	6,678	3,390	4,827	6,790	3,457	4,940	6,927
Nagaland	8,635	12,005	16,104	8,564	11,817	15,805	8,404	11,589	15,456
Odisha	51,964	67,591	87,244	54,122	70,060	89,939	55,356	71,304	90,525
Punjab	17,472	23,258	35,714	18,807	25,036	36,873	20,407	26,825	38,319
Rajasthan	56,850	78,596	1,05,477	61,248	84,086	1,11,105	64,815	88,469	1,16,735
Sikkim	62	340	2,418	67	388	2,504	75	444	2,568
Tamil Nadu	1,32,284	1,61,743	2,02,386	1,27,890	1,55,906	1,94,398	1,24,528	1,51,680	1,88,036
Tripura	218	3,069	8,600	265	3,429	9,450	324	3,843	10,704
Uttarakhand	1,940	4,243	6,685	2,358	4,782	7,445	2,713	5,261	8,058
Uttar Pradesh	1,11,013	1,30,898	1,52,627	1,11,841	1,31,731	1,53,420	1,13,213	1,32,920	1,54,623
West Bengal	1,21,920	1,56,791	1,99,811	1,19,657	1,53,517	1,95,628	1,16,782	1,49,706	1,90,158
Andaman & Nicobar Islands	144	256	628	140	247	611	135	237	593
Chandigarh	163	1,414	5,784	191	1,563	6,340	224	1,715	6,945
Dadra & Nagar Haveli	36	150	1,205	45	173	1,341	56	201	1,482
Daman & Diu	6	91	537	6	105	568	8	121	628
Puducherry	715	1,344	3,007	710	1,352	3,029	716	1,372	3,083
India*	17,99,922	22,25,930	27,84,682	17,80,726	21,98,559	27,42,886	17,64,324	21,74,594	27,08,941

*Excluding Lakshadweep

Table 3. Number of HIV Infections (PLHIV- Adult & Children) by States/UTs with Uncertainty Bounds, 2007-2015 (Cont...)

States/UT	2010			2011			2012		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Andhra Pradesh & Telangana	3,81,695	4,38,475	4,99,567	3,74,529	4,28,656	4,87,209	3,68,697	4,20,162	4,75,999
Arunachal Pradesh	170	533	1,005	199	560	1,045	233	582	1,075
Assam	5,539	8,388	11,369	6,410	9,188	12,347	7,130	9,996	13,221
Bihar	1,10,795	1,41,827	1,76,184	1,14,315	1,45,806	1,80,188	1,17,450	1,48,849	1,82,978
Chhattisgarh	21,020	27,931	35,632	21,318	28,376	36,144	21,495	28,914	36,996
Delhi	8,503	22,509	54,962	9,165	24,041	56,987	9,838	25,507	59,682
Goa	2,279	4,857	11,924	2,237	4,734	11,616	2,191	4,635	11,554
Gujarat	1,14,668	1,46,655	1,76,295	1,18,443	1,50,325	1,81,034	1,21,671	1,54,793	1,87,265
Himachal Pradesh	3,894	5,438	8,001	3,908	5,458	8,090	3,954	5,541	8,284
Haryana	12,556	18,458	34,529	13,274	19,416	35,106	13,926	20,346	36,057
Jharkhand	21,139	29,020	38,791	22,670	30,870	40,925	23,888	32,470	42,577
Jammu & Kashmir	1,735	2,539	3,687	1,845	2,623	3,796	1,946	2,700	3,859
Karnataka	1,90,447	2,18,944	2,51,859	1,86,777	2,14,506	2,46,613	1,83,838	2,11,519	2,44,156
Kerala	18,468	25,853	36,507	18,083	25,189	35,451	17,710	24,600	34,665
Meghalaya	261	988	4,317	280	1,030	4,194	301	1,070	4,137
Maharashtra	2,84,629	3,37,686	4,10,515	2,75,792	3,27,235	3,97,150	2,69,542	3,19,119	3,90,295
Manipur	22,727	29,019	38,162	21,972	28,252	37,160	21,313	27,404	36,134
Madhya Pradesh	36,987	44,420	53,589	36,965	44,340	53,353	36,986	44,412	53,326
Mizoram	3,536	5,087	7,213	3,651	5,259	7,509	3,753	5,443	7,864
Nagaland	8,253	11,384	15,182	8,123	11,228	15,015	8,046	11,111	14,997
Odisha	55,798	71,824	90,869	55,628	71,730	90,774	54,962	71,236	90,047
Punjab	22,097	28,683	39,973	23,855	30,598	41,954	25,321	32,488	43,772
Rajasthan	67,398	92,102	1,21,420	69,397	95,006	1,24,348	70,722	97,520	1,26,837
Sikkim	83	508	2,565	92	580	2,587	104	661	2,779
Tamil Nadu	1,22,301	1,49,046	1,83,849	1,21,591	1,47,680	1,81,519	1,21,394	1,47,378	1,81,611
Tripura	398	4,305	12,160	492	4,821	13,774	598	5,388	15,428
Uttarakhand	3,074	5,693	8,601	3,362	6,094	9,114	3,703	6,442	9,525
Uttar Pradesh	1,14,710	1,34,650	1,57,230	1,16,791	1,37,042	1,60,169	1,19,247	1,40,093	1,64,333
West Bengal	1,13,753	1,45,776	1,85,623	1,11,090	1,42,116	1,80,911	1,08,308	1,38,741	1,76,853
Andaman & Nicobar Islands	129	227	577	123	217	555	118	208	540
Chandigarh	259	1,861	7,609	296	2,009	8,402	335	2,167	9,293
Dadra & Nagar Haveli	70	233	1,613	87	270	1,684	105	312	1,850
Daman & Diu	9	140	696	10	162	773	12	187	875
Puducherry	731	1,393	3,158	745	1,422	3,232	762	1,452	3,339
India*	17,50,111	21,56,452	26,85,233	17,43,515	21,46,839	26,70,728	17,39,599	21,43,446	26,72,203

Table 3. Number of HIV Infections (PLHIV- Adult & Children) by States/UTs with Uncertainty Bounds, 2007-2015 (Cont...)

States/UT	2013			2014			2015		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Andhra Pradesh & Telangana	3,60,435	4,09,354	4,62,897	3,54,493	4,00,876	4,51,059	3,50,650	3,94,661	4,42,360
Arunachal Pradesh	268	591	1,092	302	599	1,095	322	606	1,110
Assam	7,699	10,721	13,891	8,254	11,417	14,786	8,748	12,090	15,843
Bihar	1,18,427	1,49,522	1,84,233	1,18,477	1,50,026	1,84,153	1,18,502	1,50,689	1,85,656
Chhattisgarh	21,546	29,299	37,686	21,960	29,937	38,635	22,484	30,838	39,880
Delhi	10,426	27,092	62,327	11,124	28,652	65,087	11,874	30,216	67,917
Goa	2,177	4,607	11,542	2,174	4,594	11,490	2,203	4,619	11,534
Gujarat	1,23,969	1,58,418	1,91,788	1,26,821	1,62,245	1,96,658	1,29,555	1,66,333	2,01,771
Himachal Pradesh	3,980	5,589	8,399	4,038	5,655	8,463	4,067	5,723	8,601
Haryana	14,547	21,076	36,412	15,115	21,826	36,730	15,736	22,596	37,221
Jharkhand	24,372	33,299	43,348	24,782	33,835	44,051	25,191	34,386	44,867
Jammu & Kashmir	2,008	2,732	3,877	2,047	2,752	3,882	2,087	2,777	3,925
Karnataka	1,79,818	2,06,826	2,40,575	1,75,945	2,02,622	2,35,872	1,73,200	1,99,060	2,31,184
Kerala	17,495	24,156	34,054	17,245	23,758	33,368	17,025	23,376	32,596
Meghalaya	312	1,090	3,960	322	1,108	3,919	321	1,122	3,706
Maharashtra	2,63,064	3,11,619	3,79,380	2,60,090	3,06,927	3,72,822	2,55,664	3,01,453	3,66,485
Manipur	20,450	26,349	35,558	19,581	25,397	34,521	18,748	24,457	33,362
Madhya Pradesh	36,867	44,247	53,278	36,718	44,246	53,427	36,823	44,409	53,706
Mizoram	3,801	5,559	8,011	3,867	5,670	8,269	3,931	5,762	8,494
Nagaland	7,928	11,066	15,104	7,938	11,052	15,210	7,794	11,050	15,353
Odisha	54,339	70,015	88,778	53,412	68,750	87,361	52,382	67,654	86,219
Punjab	26,838	34,017	45,018	27,863	35,495	46,462	28,954	36,794	47,838
Rajasthan	71,835	99,599	1,29,516	72,744	1,01,361	1,31,744	73,568	1,03,148	1,34,147
Sikkim	115	744	2,886	128	837	3,058	145	939	3,232
Tamil Nadu	1,19,627	1,45,471	1,79,823	1,18,596	1,44,168	1,77,831	1,17,823	1,42,982	1,76,121
Tripura	719	5,958	17,272	862	6,564	18,950	1,039	7,238	21,156
Uttarakhand	4,055	6,674	9,806	4,195	6,871	10,188	4,456	7,059	10,463
Uttar Pradesh	1,20,998	1,42,934	1,68,485	1,23,568	1,46,419	1,73,381	1,26,446	1,50,361	1,78,594
West Bengal	1,04,668	1,34,667	1,71,467	1,01,688	1,31,207	1,68,087	99,676	1,28,757	1,65,095
Andaman & Nicobar Islands	113	200	523	109	193	503	105	186	481
Chandigarh	379	2,403	10,396	434	2,643	11,619	506	2,933	13,107
Dadra & Nagar Haveli	126	357	2,029	139	406	2,202	151	463	2,400
Daman & Diu	14	216	973	16	247	1,088	19	284	1,229
Puducherry	789	1,491	3,427	802	1,526	3,540	814	1,560	3,649
India*	17,24,204	21,27,958	26,57,811	17,15,849	21,19,881	26,49,511	17,11,009	21,16,581	26,49,302

Table 4. Estimated Number of Annual New HIV Infection (15+ yrs) by States/UTs with Uncertainty Bounds, 2007-2015

States/UT	2007			2008			2009		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Andhra Pradesh & Telangana	13,211	15,072	17,561	10,940	12,294	13,936	9,402	10,613	12,056
Arunachal Pradesh	20	57	118	23	52	116	25	48	105
Assam	560	817	1,114	571	840	1,130	589	851	1,162
Bihar	8,039	13,818	18,714	7,802	11,978	16,698	7,367	10,404	14,393
Chhattisgarh	927	1,370	2,010	997	1,481	2,084	1,065	1,598	2,246
Delhi	828	1,756	3,302	836	1,769	3,334	833	1,763	3,350
Goa	31	129	431	24	121	432	19	110	421
Gujarat	7,125	9,275	11,890	7,068	9,588	12,183	7,134	9,910	12,584
Himachal Pradesh	168	249	399	148	228	378	132	214	365
Haryana	962	1,532	2,111	931	1,481	2,064	910	1,452	2,039
Jharkhand	2,365	3,416	4,689	2,055	3,193	4,458	1,807	2,958	4,312
Jammu & Kashmir	169	225	318	129	175	263	99	136	217
Karnataka	4,673	5,815	7,194	3,869	4,950	6,231	2,939	3,860	4,995
Kerala	705	988	1,642	577	811	1,285	493	698	1,082
Meghalaya	24	79	187	24	77	182	23	72	176
Maharashtra	6,217	8,264	10,779	5,082	6,965	9,413	4,122	5,802	8,109
Manipur	851	1,242	1,747	664	1,041	1,548	531	901	1,421
Madhya Pradesh	1,915	2,424	3,123	1,743	2,198	2,762	1,609	2,091	2,650
Mizoram	224	339	503	213	330	506	197	318	507
Nagaland	603	850	1,214	504	736	1,074	430	656	969
Odisha	4,146	6,293	9,104	3,536	5,143	7,480	3,047	4,299	6,219
Punjab	1,553	2,537	3,272	1,499	2,421	3,133	1,450	2,301	2,974
Rajasthan	5,644	8,545	12,350	5,198	7,806	11,466	4,759	7,018	10,244
Sikkim	10	53	167	12	60	192	14	69	217
Tamil Nadu	3,906	5,159	6,707	3,416	4,625	6,149	3,118	4,387	5,940
Tripura	81	438	1,370	105	491	1,473	134	554	1,747
Uttarakhand	304	649	1,051	292	611	1,015	279	555	961
Uttar Pradesh	6,013	7,336	8,962	6,069	7,488	9,269	6,028	7,626	9,605
West Bengal	5,418	7,353	9,986	4,953	6,910	9,535	4,556	6,695	9,364
Andaman & Nicobar Islands	6	10	30	5	10	32	5	10	34
Chandigarh	45	171	827	46	178	900	50	192	952
Dadra & Nagar Haveli	6	22	124	7	26	140	8	30	156
Daman & Diu	1	14	56	1	16	66	2	18	78
Puducherry	16	38	112	12	31	93	10	25	75
India*	76,766	1,06,335	1,43,164	69,351	96,124	1,31,020	63,186	88,234	1,21,725

*Excluding Lakshadweep

Table 4. Estimated Number of Annual New HIV Infection (15+ yrs) by States/UTs with Uncertainty Bounds, 2007-2015 (Cont...)

States/UT	2010			2011			2012		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Andhra Pradesh & Telangana	8,433	9,852	11,356	7,586	9,253	10,849	7,002	8,776	10,505
Arunachal Pradesh	25	46	102	24	44	96	24	43	91
Assam	611	887	1,252	608	919	1,369	606	940	1,558
Bihar	7,024	9,587	13,005	6,702	9,058	11,984	6,455	8,694	11,470
Chhattisgarh	1,091	1,694	2,372	1,118	1,807	2,551	1,107	1,871	2,645
Delhi	798	1,727	3,342	756	1,699	3,305	726	1,679	3,318
Goa	16	104	409	14	99	402	12	97	405
Gujarat	7,027	10,176	12,943	7,119	10,450	13,275	7,208	10,563	13,459
Himachal Pradesh	125	210	369	121	210	376	116	210	385
Haryana	907	1,448	2,090	885	1,429	2,101	869	1,394	2,061
Jharkhand	1,643	2,710	4,097	1,499	2,448	3,816	1,475	2,339	3,730
Jammu & Kashmir	91	120	201	86	110	189	79	99	171
Karnataka	2,610	3,495	4,671	2,337	3,199	4,404	2,072	2,947	4,187
Kerala	442	651	1,007	404	619	960	382	604	959
Meghalaya	22	69	172	21	66	177	19	61	178
Maharashtra	3,594	5,279	7,575	3,192	4,833	7,107	2,845	4,469	6,798
Manipur	401	754	1,267	306	638	1,129	238	555	1,039
Madhya Pradesh	1,512	2,043	2,645	1,471	2,061	2,725	1,401	2,043	2,765
Mizoram	181	308	531	169	298	569	152	283	587
Nagaland	373	583	885	336	536	827	302	510	799
Odisha	2,748	3,844	5,455	2,522	3,529	4,951	2,365	3,315	4,726
Punjab	1,483	2,312	2,987	1,518	2,308	3,013	1,570	2,319	3,053
Rajasthan	4,419	6,522	9,384	4,038	5,991	8,596	3,852	5,785	8,273
Sikkim	16	77	245	18	85	267	21	96	309
Tamil Nadu	3,099	4,457	6,127	2,830	4,206	5,880	2,776	4,274	6,065
Tripura	164	604	2,004	195	670	2,290	220	727	2,591
Uttarakhand	263	512	941	248	477	922	231	435	890
Uttar Pradesh	6,203	7,944	10,104	6,362	8,308	10,683	6,573	8,641	11,283
West Bengal	4,163	6,521	9,424	3,865	6,439	9,517	3,703	6,353	9,693
Andaman & Nicobar Islands	5	10	35	5	10	35	5	11	38
Chandigarh	51	200	986	51	212	1,044	53	224	1,118
Dadra & Nagar Haveli	8	35	177	9	40	212	9	46	256
Daman & Diu	2	21	91	2	24	115	3	28	140
Puducherry	9	25	75	9	25	75	9	27	77
India*	59,559	84,827	1,18,326	56,426	82,100	1,15,811	54,480	80,458	1,15,622

Table 4. Estimated Number of Annual New HIV Infection (15+ yrs) by States/UTs with Uncertainty Bounds, 2007-2015 (Cont...)

States/UT	2013			2014			2015		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Andhra Pradesh & Telangana	6,401	8,318	10,118	5,896	7,900	9,827	5,429	7,524	9,521
Arunachal Pradesh	23	42	86	22	42	86	22	42	88
Assam	586	949	1,764	574	953	2,050	549	928	2,316
Bihar	6,206	8,446	11,352	6,009	8,292	11,246	5,769	8,234	11,323
Chhattisgarh	1,113	1,922	2,754	1,100	1,960	2,825	1,089	1,984	2,860
Delhi	685	1,646	3,324	650	1,620	3,315	641	1,591	3,365
Goa	11	96	408	10	94	411	9	94	404
Gujarat	7,233	10,652	13,549	7,192	10,639	13,555	7,289	10,589	13,435
Himachal Pradesh	112	208	385	108	209	393	103	207	389
Haryana	841	1,357	2,016	808	1,305	1,956	754	1,236	1,866
Jharkhand	1,316	2,031	3,195	1,235	1,885	2,948	1,251	1,910	3,000
Jammu & Kashmir	73	94	158	68	88	148	63	82	141
Karnataka	1,843	2,715	3,934	1,677	2,565	3,821	1,529	2,383	3,643
Kerala	359	591	980	346	595	1,023	324	581	1,051
Meghalaya	16	57	174	13	51	172	11	45	168
Maharashtra	2,482	4,058	6,347	2,183	3,688	5,890	2,071	3,574	5,776
Manipur	188	488	972	155	441	928	140	429	924
Madhya Pradesh	1,359	2,037	2,820	1,304	2,067	2,888	1,267	2,060	2,921
Mizoram	135	268	594	119	245	595	111	230	597
Nagaland	281	496	788	277	492	780	291	513	790
Odisha	2,203	3,159	4,601	2,097	3,070	4,586	1,948	3,001	4,583
Punjab	1,557	2,244	2,979	1,528	2,169	2,874	1,471	2,059	2,746
Rajasthan	3,590	5,560	7,956	3,378	5,317	7,695	3,193	5,054	7,446
Sikkim	24	108	349	26	120	406	30	134	483
Tamil Nadu	2,683	4,296	6,212	2,618	4,319	6,335	2,373	4,007	5,907
Tripura	240	794	2,877	245	848	3,097	259	929	3,384
Uttarakhand	216	403	881	204	375	853	191	346	856
Uttar Pradesh	6,732	8,961	11,815	6,887	9,297	12,167	7,033	9,474	12,266
West Bengal	3,414	6,252	9,779	3,312	6,308	10,131	3,213	6,257	10,242
Andaman & Nicobar Islands	4	11	38	4	11	38	4	11	38
Chandigarh	56	240	1,190	57	260	1,273	66	298	1,414
Dadra & Nagar Haveli	9	53	312	9	60	376	9	69	485
Daman & Diu	3	33	167	4	37	191	5	43	225
Puducherry	9	28	79	9	29	81	10	30	83
India*	52,003	78,613	1,14,953	50,124	77,351	1,14,960	48,517	75,948	1,14,736

Table 5. Estimated Number of Annual AIDS-related Deaths by States/UTs with Uncertainty Bounds, 2007-2015

States/UT	2007			2008			2009		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Andhra Pradesh & Telangana	21,573	29,397	55,713	18,104	25,258	49,513	17,364	22,956	38,536
Arunachal Pradesh	3	13	32	4	15	34	5	18	39
Assam	108	199	319	109	194	318	116	197	306
Bihar	3,368	4,722	7,041	3,956	5,441	8,137	4,493	6,102	8,916
Chhattisgarh	1,265	1,788	2,950	1,262	1,753	2,893	1,262	1,744	2,685
Delhi	115	345	1,059	125	368	1,109	115	360	1,095
Goa	157	393	1,212	150	372	1,120	136	328	764
Gujarat	8,047	11,012	19,095	7,566	10,412	18,260	6,849	9,648	14,981
Himachal Pradesh	263	399	733	249	373	712	224	348	588
Haryana	311	536	1,304	304	512	1,224	347	579	1,253
Jharkhand	414	624	1,010	469	685	1,094	541	790	1,221
Jammu & Kashmir	26	46	84	23	43	77	25	43	74
Karnataka	13,628	18,370	33,453	11,988	16,621	31,304	10,531	13,668	21,509
Kerala	847	1,342	2,587	872	1,385	2,729	904	1,414	2,454
Meghalaya	11	46	238	11	46	239	10	42	183
Maharashtra	25,127	34,927	65,510	21,682	30,604	58,738	18,837	25,492	40,660
Manipur	1,068	1,470	2,500	1,002	1,416	2,449	1,041	1,439	2,249
Madhya Pradesh	1,966	2,553	3,959	2,024	2,631	4,178	2,114	2,706	4,065
Mizoram	163	258	419	164	260	432	153	239	379
Nagaland	494	724	1,205	472	698	1,185	444	663	1,067
Odisha	1,975	2,756	4,573	2,280	3,166	5,330	2,571	3,583	5,691
Punjab	661	978	1,848	519	756	1,426	452	651	1,126
Rajasthan	2,038	2,930	4,575	2,275	3,263	5,162	2,495	3,601	5,469
Sikkim	3	14	106	2	14	97	2	14	79
Tamil Nadu	9,498	13,886	28,674	7,748	11,616	24,525	6,942	9,748	16,675
Tripura	10	148	469	12	161	502	16	174	544
Uttarakhand	54	110	194	52	106	185	59	115	196
Uttar Pradesh	6,109	7,677	11,616	6,117	7,698	11,793	6,016	7,451	10,723
West Bengal	7,406	10,509	19,079	7,636	10,997	20,242	8,333	11,297	18,873
Andaman & Nicobar Islands	10	21	57	11	21	60	11	22	62
Chandigarh	3	31	149	4	33	156	5	44	156
Dadra & Nagar Haveli	1	6	52	2	7	59	2	8	68
Daman & Diu	0	4	27	0	4	30	0	5	33
Puducherry	35	75	201	26	52	137	16	33	81
India*	1,06,757	1,48,309	2,72,043	97,220	1,36,981	2,55,449	92,431	1,25,522	2,02,800

*Excluding Lakshadweep

Table 5. Estimated Number of Annual AIDS-related Deaths by States/UTs with Uncertainty Bounds, 2007-2015 (Cont...)

States/UT	2010			2011			2012		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Andhra Pradesh & Telangana	15,889	21,391	38,064	14,300	19,293	34,804	12,312	17,215	24,002
Arunachal Pradesh	6	20	44	8	24	50	15	28	40
Assam	126	206	330	125	198	315	123	215	339
Bihar	5,042	6,756	10,008	5,487	7,296	10,979	5,646	7,852	10,250
Chhattisgarh	1,266	1,769	2,866	1,209	1,712	2,807	1,097	1,681	2,465
Delhi	124	357	1,012	134	360	1,019	188	398	835
Goa	118	274	710	101	232	630	107	210	333
Gujarat	6,390	8,751	14,170	5,921	8,066	13,244	4,857	7,460	9,996
Himachal Pradesh	204	308	551	158	239	442	126	189	278
Haryana	372	612	1,293	381	626	1,320	363	632	924
Jharkhand	657	925	1,442	712	999	1,561	834	1,129	1,505
Jammu & Kashmir	30	50	88	35	55	95	31	52	73
Karnataka	8,467	11,317	19,172	6,403	8,645	14,800	4,300	6,920	9,876
Kerala	897	1,386	2,537	854	1,326	2,479	764	1,270	1,764
Meghalaya	9	37	167	7	31	141	10	28	55
Maharashtra	15,590	21,049	35,954	12,442	16,889	29,172	8,716	14,154	19,773
Manipur	1,107	1,521	2,469	1,050	1,461	2,395	907	1,453	2,078
Madhya Pradesh	2,130	2,716	4,248	2,034	2,601	4,130	1,869	2,438	3,185
Mizoram	128	201	333	105	167	277	92	146	207
Nagaland	383	571	936	317	470	788	256	404	568
Odisha	2,824	3,887	6,448	3,051	4,184	7,015	3,355	4,366	6,944
Punjab	432	609	1,072	395	558	996	377	612	908
Rajasthan	2,685	3,866	6,025	2,843	4,053	6,345	2,976	4,231	5,735
Sikkim	2	16	87	2	16	79	6	19	48
Tamil Nadu	5,829	8,164	14,822	4,678	6,636	12,221	3,861	5,634	7,664
Tripura	17	184	584	20	202	644	46	218	696
Uttarakhand	66	125	215	67	124	214	81	137	245
Uttar Pradesh	5,829	7,206	10,739	5,515	6,870	10,417	4,539	6,481	8,774
West Bengal	8,191	11,207	19,741	7,751	10,861	18,959	8,085	10,478	17,947
Andaman & Nicobar Islands	11	21	63	10	21	64	10	20	64
Chandigarh	7	59	238	9	70	288	25	73	173
Dadra & Nagar Haveli	2	10	75	3	11	85	4	13	97
Daman & Diu	0	6	36	0	7	40	0	8	46
Puducherry	15	31	78	12	24	62	13	25	45
India*	84,845	1,15,608	1,96,617	76,139	1,04,327	1,78,877	65,991	96,189	1,37,932

Table 5. Estimated Number of Annual AIDS-related Deaths by States/UTs with Uncertainty Bounds, 2007-2015 (Cont...)

States/UT	2013			2014			2015		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Andhra Pradesh & Telangana	11,184	15,372	21,197	8,465	12,075	17,056	6,195	9,249	13,732
Arunachal Pradesh	17	30	46	17	31	53	17	32	59
Assam	130	234	357	169	235	333	158	229	339
Bihar	6,235	8,030	10,295	6,218	7,924	10,724	5,794	7,514	10,575
Chhattisgarh	1,129	1,532	2,099	903	1,309	1,920	684	1,062	1,695
Delhi	280	420	844	244	374	607	182	331	744
Goa	102	199	315	100	169	334	58	122	533
Gujarat	5,174	7,070	9,231	4,795	6,552	9,058	4,230	6,067	9,077
Himachal Pradesh	116	167	241	102	143	211	81	124	215
Haryana	355	591	829	339	488	761	227	364	780
Jharkhand	959	1,243	1,622	1,012	1,366	1,876	959	1,355	1,946
Jammu & Kashmir	39	53	71	31	43	60	26	39	58
Karnataka	4,134	5,802	8,007	3,622	4,972	6,958	2,416	3,744	5,783
Kerala	710	1,170	1,612	737	1,098	1,647	642	1,030	1,615
Meghalaya	12	26	57	9	17	45	7	14	63
Maharashtra	7,920	10,879	15,151	5,051	7,056	10,159	4,448	6,766	11,371
Manipur	764	1,369	1,998	848	1,209	1,797	764	1,146	1,796
Madhya Pradesh	1,783	2,271	2,930	1,510	2,020	2,817	1,284	1,799	2,618
Mizoram	90	133	191	68	93	133	51	79	123
Nagaland	222	359	489	216	300	414	192	287	415
Odisha	3,441	4,360	6,447	3,239	4,235	6,461	2,936	3,965	6,458
Punjab	379	601	864	377	531	741	367	523	761
Rajasthan	3,151	4,415	5,769	3,280	4,458	6,053	2,857	4,105	5,839
Sikkim	6	22	63	7	25	81	6	27	134
Tamil Nadu	3,694	5,066	6,784	3,073	4,358	6,178	2,491	3,763	5,852
Tripura	47	239	786	43	254	834	28	266	881
Uttarakhand	91	151	269	105	148	218	76	120	194
Uttar Pradesh	4,333	6,090	8,191	4,335	5,648	7,534	3,741	5,195	7,287
West Bengal	7,551	9,901	16,767	6,909	9,202	15,510	5,408	8,127	14,191
Andaman & Nicobar Islands	9	20	63	8	19	61	8	18	60
Chandigarh	30	78	214	33	86	302	26	87	558
Dadra & Nagar Haveli	4	15	106	5	16	117	5	19	131
Daman & Diu	1	9	51	1	10	65	1	12	72
Puducherry	14	29	54	18	30	57	18	32	79
India*	64,106	87,946	1,24,010	55,889	76,494	1,11,175	46,383	67,612	1,06,034

Table 6. Estimated Need for ART (Adult 15+) by States/UTs with Uncertainty Bounds, 2007-2015

States/UT	2007			2008			2009		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Andhra Pradesh & Telangana	41,409	62,018	91,315	50,521	73,479	1,05,146	96,419	1,26,497	1,67,372
Arunachal Pradesh	13	41	160	19	53	200	34	93	297
Assam	230	485	801	329	649	1,062	713	1,300	2,075
Bihar	7,677	11,907	21,018	10,042	15,049	26,158	17,894	26,086	42,233
Chhattisgarh	1,911	3,118	4,681	2,255	3,525	5,095	4,415	6,238	8,360
Delhi	702	2,441	21,406	920	3,122	25,258	1,558	5,202	30,635
Goa	362	1,076	3,561	403	1,162	3,741	666	1,731	5,283
Gujarat	10,907	30,099	42,077	12,113	31,266	42,632	19,687	41,361	53,684
Himachal Pradesh	569	1,189	2,183	650	1,297	2,313	990	1,760	2,832
Haryana	732	1,626	8,348	1,000	2,094	10,410	1,999	3,725	15,584
Jharkhand	619	1,130	2,112	886	1,584	2,905	2,216	3,652	6,138
Jammu & Kashmir	159	260	443	220	362	637	367	612	1,121
Karnataka	27,318	38,618	59,376	30,803	42,405	62,425	53,980	69,245	93,819
Kerala	2,903	5,346	12,312	3,505	6,249	13,696	5,304	8,817	16,291
Meghalaya	14	78	1,456	17	90	1,606	36	174	2,312
Maharashtra	64,554	1,05,664	1,72,437	69,004	1,08,953	1,71,464	96,453	1,37,142	1,97,217
Manipur	3,303	5,067	9,263	4,019	6,034	10,723	6,688	9,423	14,729
Madhya Pradesh	4,361	7,365	13,839	5,187	8,377	14,967	8,489	12,086	18,429
Mizoram	401	735	2,238	471	841	2,312	775	1,272	2,702
Nagaland	1,317	2,292	4,048	1,502	2,527	4,345	2,242	3,459	5,367
Odisha	3,819	7,231	13,513	5,023	8,950	15,696	9,704	14,969	23,525
Punjab	1,307	2,245	4,244	1,793	2,974	5,697	3,791	5,705	11,376
Rajasthan	4,868	8,480	14,735	6,249	10,694	18,217	11,438	17,934	28,209
Sikkim	14	39	566	17	47	683	24	78	1,034
Tamil Nadu	29,809	50,108	1,00,265	32,300	52,205	1,00,428	44,724	64,332	1,07,010
Tripura	34	380	2,777	36	430	2,857	46	677	3,223
Uttarakhand	93	238	486	147	353	707	375	793	1,485
Uttar Pradesh	9,553	15,049	21,056	11,169	17,068	23,716	21,588	29,809	39,135
West Bengal	17,126	29,717	65,322	19,004	31,930	65,311	28,672	43,330	77,245
Andaman & Nicobar Islands	22	55	223	23	56	217	33	72	231
Chandigarh	11	161	764	14	206	947	25	350	1,528
Dadra & Nagar Haveli	2	10	356	3	11	356	6	24	464
Daman & Diu	1	10	51	1	12	60	2	19	111
Puducherry	155	376	1,148	185	441	1,313	267	599	1,628
India*	2,36,275	3,94,654	6,98,580	2,69,830	4,34,495	7,43,300	4,41,620	6,38,566	9,82,684

*Excluding Lakshadweep

Table 6. Estimated Need for ART (Adult 15+) by States/UTs with Uncertainty Bounds, 2007-2015 (Cont...)

States/UT	2010			2011			2012		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Andhra Pradesh & Telangana	1,06,721	1,38,393	1,80,675	1,16,868	1,50,477	1,93,888	1,75,702	2,31,254	2,49,083
Arunachal Pradesh	40	111	329	44	127	354	177	233	321
Assam	899	1,589	2,518	1,093	1,928	3,016	1,773	3,871	4,759
Bihar	20,925	30,266	47,346	23,922	34,339	52,775	55,101	61,732	67,904
Chhattisgarh	4,703	6,580	8,774	5,022	6,952	9,156	10,771	12,169	13,798
Delhi	1,858	6,161	33,519	2,193	7,180	36,845	8,261	12,086	27,924
Goa	708	1,825	5,370	761	1,936	5,545	1,274	2,752	5,212
Gujarat	21,817	43,739	56,316	24,351	46,757	59,707	66,751	72,763	78,592
Himachal Pradesh	1,103	1,887	3,025	1,228	2,066	3,258	2,468	3,048	3,871
Haryana	2,379	4,304	17,307	2,775	4,922	18,664	4,269	8,846	10,701
Jharkhand	2,794	4,521	7,404	3,450	5,497	8,711	10,562	11,973	13,506
Jammu & Kashmir	431	741	1,352	478	871	1,556	1,318	1,399	1,526
Karnataka	58,985	75,115	1,00,632	65,309	82,466	1,07,754	1,14,018	1,23,796	1,32,268
Kerala	5,818	9,522	17,046	6,287	10,168	17,557	9,752	14,212	16,063
Meghalaya	44	202	2,526	54	239	2,769	193	455	1,496
Maharashtra	1,01,963	1,42,773	2,03,510	1,09,036	1,50,238	2,10,127	1,85,370	1,98,621	2,17,423
Manipur	7,203	10,096	15,434	7,691	10,718	16,178	8,571	15,397	20,121
Madhya Pradesh	9,290	12,973	19,229	10,123	13,889	20,059	19,979	21,461	23,135
Mizoram	893	1,448	2,957	1,033	1,659	3,204	1,669	2,706	3,988
Nagaland	2,459	3,734	5,713	2,695	4,054	6,068	3,620	5,944	6,539
Odisha	11,308	16,896	25,512	12,716	18,586	27,385	27,169	31,887	39,752
Punjab	4,650	6,913	13,636	5,634	8,255	16,134	8,788	14,779	19,126
Rajasthan	13,685	20,907	32,421	15,923	23,947	36,543	31,031	42,098	46,858
Sikkim	28	93	1,194	31	112	1,368	57	231	875
Tamil Nadu	48,032	67,472	1,09,611	51,594	71,391	1,13,199	88,037	93,761	1,00,261
Tripura	52	778	3,488	59	893	3,749	227	1,851	5,620
Uttarakhand	499	1,010	1,855	648	1,257	2,265	1,501	2,585	4,522
Uttar Pradesh	23,720	32,301	41,783	25,999	35,026	44,862	41,511	60,655	78,665
West Bengal	29,681	44,395	76,034	31,160	45,328	75,500	53,049	67,721	92,322
Andaman & Nicobar Islands	32	70	219	32	67	206	52	98	265
Chandigarh	29	395	1,702	34	438	1,841	268	832	2,925
Dadra & Nagar Haveli	7	28	494	8	33	533	25	89	793
Daman & Diu	2	22	131	2	26	153	4	59	313
Puducherry	306	671	1,790	346	745	1,956	551	973	1,559
India*	4,83,064	6,87,931	10,40,852	5,28,599	7,42,587	11,02,885	9,33,869	11,22,337	12,92,086

Table 6. Estimated Need for ART (Adult 15+) by States/UTs with Uncertainty Bounds, 2007-2015 (Cont...)

States/UT	2013			2014			2015		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Andhra Pradesh & Telangana	1,91,345	2,36,760	2,59,398	2,11,574	2,47,165	2,69,021	2,20,022	2,54,902	2,76,110
Arunachal Pradesh	185	245	352	193	267	405	196	275	428
Assam	2,462	4,354	5,312	3,412	5,103	6,186	3,804	5,639	6,900
Bihar	57,489	64,402	71,162	61,713	70,368	78,837	63,373	72,657	82,148
Chhattisgarh	10,854	12,557	14,629	11,518	13,751	16,359	12,038	14,662	18,035
Delhi	11,094	13,500	26,487	12,781	15,449	27,146	13,028	17,230	31,941
Goa	1,466	2,833	5,504	1,673	2,955	5,798	1,696	3,087	6,655
Gujarat	70,342	76,314	82,780	75,789	83,261	90,799	78,972	87,641	96,834
Himachal Pradesh	2,657	3,206	3,999	2,931	3,444	4,332	3,021	3,621	4,724
Haryana	5,793	9,612	11,885	7,931	10,929	14,081	8,518	12,064	16,617
Jharkhand	11,414	13,026	14,748	12,743	14,835	17,103	13,342	15,654	18,198
Jammu & Kashmir	1,440	1,512	1,634	1,583	1,666	1,816	1,617	1,746	2,016
Karnataka	1,19,430	1,27,977	1,38,510	1,25,217	1,33,744	1,45,778	1,26,458	1,37,079	1,52,027
Kerala	10,347	14,500	16,558	10,963	14,977	17,308	11,118	15,149	17,658
Meghalaya	275	505	1,511	362	630	1,745	366	653	1,925
Maharashtra	1,90,123	2,03,229	2,27,582	1,97,717	2,12,694	2,39,718	1,97,548	2,15,971	2,51,008
Manipur	9,237	15,398	19,946	10,090	15,644	19,865	10,098	15,510	19,838
Madhya Pradesh	20,438	22,076	24,010	21,766	23,735	26,134	22,298	24,514	27,141
Mizoram	2,162	2,960	4,038	2,927	3,487	4,344	2,988	3,677	4,782
Nagaland	4,306	6,219	6,842	5,090	6,692	7,373	5,158	6,846	7,741
Odisha	28,221	32,552	40,984	29,802	34,344	43,095	29,986	34,782	44,093
Punjab	11,378	16,380	20,147	14,701	18,723	21,822	15,965	20,440	23,736
Rajasthan	34,613	45,038	50,696	40,375	50,310	57,929	42,621	53,365	61,580
Sikkim	75	264	1,002	93	318	1,137	98	359	1,300
Tamil Nadu	90,311	96,132	1,06,809	94,882	1,01,000	1,11,634	94,775	1,02,049	1,15,011
Tripura	263	2,079	6,266	338	2,472	7,351	375	2,776	8,178
Uttarakhand	1,961	2,874	4,677	2,517	3,297	5,111	2,661	3,630	5,502
Uttar Pradesh	49,262	63,596	79,262	57,292	70,312	82,012	60,286	73,991	86,144
West Bengal	52,336	66,897	89,607	53,481	67,882	90,085	52,940	67,974	90,472
Andaman & Nicobar Islands	50	94	253	50	92	250	47	88	240
Chandigarh	373	940	3,421	456	1,099	4,224	486	1,239	5,130
Dadra & Nagar Haveli	30	102	885	40	125	1,011	48	143	1,110
Daman & Diu	5	68	349	6	83	401	7	95	458
Puducherry	618	1,042	1,644	692	1,130	1,774	692	1,170	1,951
India*	9,92,355	11,59,243	13,42,889	10,72,698	12,31,983	14,21,984	10,96,646	12,70,678	14,87,631

Table 7. Estimated Number of Pregnant Women Needing PPTCT by States/UTs with Uncertainty Bounds, 2007-2015

States/UT	2007			2008			2009		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Andhra Pradesh & Telangana	8,364	10,227	12,810	7,244	9,016	11,301	6,710	8,179	10,231
Arunachal Pradesh	2	11	24	3	13	25	4	14	26
Assam	99	172	244	113	188	266	129	202	283
Bihar	3,119	4,208	5,429	3,404	4,445	5,645	3,544	4,579	5,725
Chhattisgarh	544	800	1,071	516	753	1,014	484	707	962
Delhi	152	394	859	167	421	871	180	446	937
Goa	43	90	237	39	79	211	33	69	176
Gujarat	2,913	3,705	4,700	2,819	3,571	4,579	2,702	3,449	4,377
Himachal Pradesh	91	127	195	86	120	182	82	115	178
Haryana	300	450	652	330	462	663	332	477	677
Jharkhand	444	662	939	531	750	1,022	596	827	1,117
Jammu & Kashmir	29	53	86	33	56	88	39	59	87
Karnataka	3,772	4,604	5,557	3,323	4,047	4,950	2,931	3,554	4,352
Kerala	474	669	944	453	631	899	414	582	845
Meghalaya	6	26	89	6	27	83	7	28	79
Maharashtra	6,032	7,421	9,179	5,178	6,330	7,863	4,560	5,589	6,920
Manipur	515	664	886	497	625	823	450	581	783
Madhya Pradesh	1,396	1,771	2,161	1,367	1,700	2,083	1,307	1,622	2,016
Mizoram	80	117	164	81	118	169	83	121	171
Nagaland	166	234	320	161	218	299	145	202	278
Odisha	1,519	1,983	2,554	1,575	2,021	2,574	1,552	2,021	2,622
Punjab	382	496	659	423	532	704	427	556	709
Rajasthan	2,189	3,048	4,069	2,361	3,176	4,202	2,390	3,279	4,430
Sikkim	1	8	50	2	9	47	2	10	43
Tamil Nadu	1,845	2,281	2,774	1,661	2,050	2,538	1,539	1,893	2,366
Tripura	4	64	158	6	71	182	7	78	209
Uttarakhand	50	115	180	55	127	197	69	140	216
Uttar Pradesh	3,986	4,797	5,719	3,851	4,597	5,490	3,707	4,429	5,357
West Bengal	2,664	3,539	4,638	2,381	3,126	4,153	2,159	2,862	3,838
Andaman & Nicobar Islands	3	5	11	3	4	10	2	4	9
Chandigarh	4	28	115	5	30	131	6	32	135
Dadra & Nagar Haveli	1	4	22	1	4	24	2	5	27
Daman & Diu	0	2	11	0	2	12	0	2	13
Puducherry	19	31	69	18	29	65	16	27	61
India*	41,208	52,806	67,575	38,693	49,348	63,365	36,610	46,740	60,255

*Excluding Lakshadweep

Table 7. Estimated Number of Pregnant Women Needing PPTCT by States/UTs with Uncertainty Bounds, 2007-2015 (Cont...)

States/UT	2010			2011			2012		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Andhra Pradesh & Telangana	5,973	7,289	8,958	5,660	6,646	8,177	5,024	5,944	7,166
Arunachal Pradesh	4	14	27	5	15	27	6	15	26
Assam	148	221	312	168	241	329	174	255	342
Bihar	3,622	4,698	5,755	3,927	4,955	6,186	3,748	4,856	6,087
Chhattisgarh	464	677	932	442	649	880	432	629	857
Delhi	196	468	965	207	484	937	225	497	966
Goa	28	61	162	24	54	144	21	49	131
Gujarat	2,642	3,387	4,285	2,679	3,378	4,197	2,704	3,392	4,218
Himachal Pradesh	78	111	170	68	97	150	65	95	151
Haryana	337	487	683	348	493	671	340	498	683
Jharkhand	646	904	1,176	764	1,042	1,381	784	1,073	1,404
Jammu & Kashmir	40	60	87	42	60	84	43	60	84
Karnataka	2,617	3,189	3,889	2,315	2,823	3,473	2,140	2,632	3,223
Kerala	375	531	756	346	477	698	317	440	643
Meghalaya	7	29	76	8	30	76	9	31	74
Maharashtra	4,051	4,905	6,094	3,996	4,852	5,897	3,492	4,296	5,301
Manipur	412	535	717	371	478	637	317	426	586
Madhya Pradesh	1,229	1,523	1,875	1,150	1,422	1,742	1,067	1,327	1,639
Mizoram	84	124	173	88	128	180	92	132	189
Nagaland	134	186	257	125	171	239	118	164	227
Odisha	1,545	2,017	2,603	1,507	1,939	2,477	1,411	1,843	2,367
Punjab	436	582	744	465	610	796	480	640	813
Rajasthan	2,379	3,330	4,472	2,405	3,327	4,506	2,322	3,286	4,367
Sikkim	2	12	43	2	13	43	2	15	48
Tamil Nadu	1,438	1,795	2,209	1,385	1,719	2,139	1,332	1,660	2,059
Tripura	10	87	236	13	96	268	16	107	299
Uttarakhand	78	152	233	91	159	244	99	164	256
Uttar Pradesh	3,587	4,299	5,107	3,533	4,236	5,120	3,391	4,119	5,005
West Bengal	1,956	2,584	3,462	1,791	2,400	3,153	1,656	2,205	2,919
Andaman & Nicobar Islands	2	4	9	2	3	8	2	3	8
Chandigarh	7	33	151	8	35	160	9	38	171
Dadra & Nagar Haveli	2	5	31	2	6	32	2	7	35
Daman & Diu	0	3	13	0	3	14	0	3	16
Puducherry	14	25	59	12	23	54	12	21	53
India*	34,543	44,327	56,721	33,949	43,064	55,119	31,852	40,922	52,413

Table 7. Estimated Number of Pregnant Women Needing PPTCT by States/UTs with Uncertainty Bounds, 2007-2015 (Cont...)

States/UT	2013			2014			2015		
	Lower	Estimate	Upper	Lower	Estimate	Upper	Lower	Estimate	Upper
Andhra Pradesh & Telangana	4,569	5,288	6,371	4,144	4,745	5,546	3,743	4,286	5,049
Arunachal Pradesh	7	14	26	8	14	26	8	14	26
Assam	187	269	357	194	275	368	199	284	401
Bihar	3,655	4,608	5,659	3,417	4,349	5,395	3,218	4,089	5,083
Chhattisgarh	425	607	823	412	598	830	404	601	836
Delhi	250	509	963	265	518	998	269	529	1,017
Goa	19	45	128	18	42	125	16	40	125
Gujarat	2,692	3,366	4,146	2,658	3,371	4,145	2,643	3,377	4,189
Himachal Pradesh	63	92	146	61	89	144	58	86	141
Haryana	341	497	685	343	495	682	339	494	697
Jharkhand	791	1,063	1,406	746	1,034	1,366	723	997	1,358
Jammu & Kashmir	45	58	77	44	56	76	44	55	75
Karnataka	1,975	2,407	2,965	1,812	2,212	2,761	1,639	2,025	2,528
Kerala	296	405	584	271	368	526	242	331	486
Meghalaya	10	32	70	11	33	74	11	33	77
Maharashtra	3,198	3,909	4,820	2,948	3,653	4,577	2,711	3,386	4,311
Manipur	290	386	538	240	329	459	205	287	413
Madhya Pradesh	995	1,228	1,521	926	1,149	1,422	858	1,084	1,360
Mizoram	94	134	194	97	136	200	97	138	209
Nagaland	117	158	216	113	154	215	108	148	209
Odisha	1,342	1,729	2,214	1,262	1,614	2,111	1,167	1,505	1,998
Punjab	494	656	826	495	671	845	498	682	863
Rajasthan	2,261	3,225	4,279	2,247	3,143	4,243	2,202	3,052	4,149
Sikkim	3	17	47	3	18	53	4	20	54
Tamil Nadu	1,292	1,636	2,039	1,266	1,627	2,077	1,200	1,587	2,063
Tripura	21	118	335	26	130	377	31	143	415
Uttarakhand	107	166	262	108	166	256	106	164	260
Uttar Pradesh	3,334	4,037	4,885	3,338	3,990	4,806	3,335	3,959	4,797
West Bengal	1,524	2,027	2,697	1,375	1,884	2,544	1,248	1,777	2,427
Andaman & Nicobar Islands	2	3	8	1	3	8	1	3	7
Chandigarh	11	41	187	12	44	206	13	47	230
Dadra & Nagar Haveli	2	8	38	3	9	42	3	10	48
Daman & Diu	0	4	16	0	4	18	0	5	19
Puducherry	11	20	51	10	18	48	8	17	45
India*	30,423	38,762	49,579	28,874	36,941	47,569	27,351	35,255	45,965

ANNEX-2

Composition of TRG on HIV Surveillance & Estimation

CHAIR-PERSON: Shri Bhanu Pratap Sharma, Secretary (Health & Family Welfare), GoI

CO-CHAIR: Secretary, Dept of Health Research & Director General, ICMR

MEMBERS

Shri N.S. Kang, Additional Secretary & Director General, NACO, GoI

Dr. Shiv Lal, Former Special Director General of Health Services (PH)

Dr. L.M. Nath, Former Director, AIIMS, New Delhi

Dr. D.C.S. Reddy, Former HOD, Dept. of PSM, IMS, BHU & Ex-NPO (Surveillance), WHO

Dr. M. Bhattacharya, Former Head, Dept. of CHA, NIHFWS

Dr. Shashi Kant, Professor of Community Medicine, AIIMS, New Delhi

Dr. Sanjay Dixit, Head, Dept. of Community Medicine, MGM Medical College, Indore

Prof Ramachandran, Former Head, Dept. of Biostatistics, AIIMS & Consultant, NIE-Chennai

Dr. Arvind Pandey, Director, National Institute of Medical Statistics, New Delhi

Dr. Sanjay Mehendale, Director, National Institute of Epidemiology, Chennai

Dr. Rajesh Kumar, Head, School of Public Health, PGIMER, Chandigarh

Mr. Taoufik Bakkali, Senior Strategic Information M&E Adviser, UNAIDS India

Dr. Peter Ghys, Director, Strategic Information, UNAIDS Geneva

Dr. Meade Morgan, Statistician, CDC, Atlanta

Dr. S Venkatesh, Director, NCDC, New Delhi

Dr. Raman Gangakhedkar, Director, NARI, Pune

Dr. J.K. Das, Director NIHFWS, New Delhi

Dr. D.T. Mourya, Director NIV, Pune

Dr. Faujdar Ram, Director, IIPS, Mumbai

Dr. Rashmi Arora, Scientist G & Head (Epidemiology), ICMR New Delhi

Dr. Rajesh Bhatia, Director, Communicable Diseases Department, SEARO, New Delhi

Dr. John Stover, Vice President Avenir Health

Dr. Pauline Harvey, Director, CDC India

Dr. R.S. Gupta, DDG, Basic Services, NACO, GoI

Dr. A.S. Rathore, DDG, Care Support & Treatment, NACO, GoI

Dr. Naresh Goel, DDG, Lab Services, NACO, GoI

MEMBER SECRETARY

Dr. Neeraj Dhingra, Deputy Director General, NACO, GoI

ANNEX-3

Composition of NWG on HIV Estimation 2015

Dr. Arvind Pandey, Director, NIMS, ICMR, Chairperson

Dr. Neeraj Dhingra, Deputy Director General, NACO, Gol, Co-Chairperson

Dr. D.C.S. Reddy, Former HOD, Dept. of PSM, IMS, BHU & Ex-NPO (Surveillance), WHO India

Dr. M. Bhattacharya, Former Head, Dept. of Community Health, NIHFWS

Dr. Shashikant, Professor, Centre for Community Medicine, AIIMS

Dr. Damodar Sahu, Scientist 'E', NIMS, ICMR

Dr. Yujwal Raj, Consultant, UNAIDS India

Dr. Pradeep Kumar, Programme Officer (Surveillance), NACO, Gol

Mr. Ugra Mohan Jha, Programme Officer (Statistics), NACO, Gol

Ms. Vinita Verma, Programme Officer (Evaluation & Operational Research), NACO, Gol

Dr. Bhavna Sangal, Technical Officer (Surveillance), NACO, Gol

Dr. Puspanjali Swain, HIV Surveillance Focal Person, NIHFWS, New Delhi

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Mr. Taoufik Bakkali, Senior Strategic Information Advisor, UNAIDS India

Dr. Savina Ammassari, Senior Strategic Information Advisor, UNAIDS India

Ms. Nalini Chandra, Analyst, UNAIDS India

Dr. Daniel Rosen, Chief, Strategic Information, CDC India

Ms. Deepika Joshi Srivastava, Public Health Analyst, CDC India

Dr. Laxmikant Chavan, National Consultant, Strategic Information, WHO India

Mr. Jitenkumar Singh, Scientist-C, NIMS, ICMR

Mr. Padum Narayan, Research Officer, NIMS, ICMR

Dr. Saritha Nair, Scientist-D, NIMS, ICMR

Dr. Lucky Singh, Scientist-C, NIMS, ICMR

COORDINATOR

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