

HIV Sentinel Surveillance 2012-13

State Surveillance Report



**Assam State AIDS Control Society
Khanapara, Guwahati-22**

FOREWORD

HIV Sentinel Surveillance (HSS) is the backbone of understanding the level and trend of HIV in the country. Initiated in 1998 under the leadership of NACO with technical support from WHO and NIHF, Assam SACS's Strategic Information Management Unit (SIMU) implemented the 13th round of HIV sentinel Surveillance in 2012-13.

Surveillance is information for action and dissemination of information to all stakeholders is one of the key objectives of Surveillance. This report, published by the SIMU division of Assam SACS summarizes the information on HIV Prevalence among the ANC attendees who acts as a proxy for the HIV Prevalence in the general population in 2012-13. The focus is on providing facts on the level and trends of the HIV epidemic at the state and district level. Hopefully it will serve the purpose of various stakeholders including health departments, Non-Governmental Organizations, educational institutions, etc to understand the HIV epidemic in the state.

Publication of this report would not be possible without the contributions of the sample collection sites and state reference laboratories that implemented the HSS 2012-13. We congratulate all site-in charges, nurses/counselors and laboratory technicians involved in HSS 2012-13 for their dedication towards the activity. We are grateful to Regional Institute of Medical Sciences (RIMS), Imphal and the State Surveillance team for their continued support and guidance during the implementation of the HSS activities. We also thank the Monitoring & Evaluation division of NACO for their guidance in implementing the HSS activities.



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ACRONYMS

ANC	Antenatal Clinic
ASACS	Assam State AIDS Control Society
DAPCU	District AIDS Prevention and Control Unit
DBS	Dried Blood Spot
EQAS	External Quality Assurance Scheme
FSW	Female Sex Worker
HIV	Human Immuno-deficiency Virus
HRG	High Risk Group
HSS	HIV Sentinel Surveillance
ICMR	Indian Council of Medical Research
IDU	Injecting Drug Users
LDT	Long Distance Truckers
MSM	Men who have Sex with Men
NACO	National AIDS Control Organization
NACP	National AIDS Control Programme
NIHFW	National Institute of Health and Family Welfare
NIMS	National Institute of Medical Statistics
OBG	Obstetrics and Gynecology
RI	Regional Institute
RIMS	Regional Institute of Medical Sciences
SMM	Single Male Migrant
STD	Sexually Transmitted Disease
TI	Targeted Intervention

Executive Summary

1. HIV Sentinel Surveillance (HSS) is a vital component of the second generation surveillance system to monitor the levels and trends of HIV epidemic among different population groups in the country. Data from HSS is also used for estimation of HIV burden in the country. It is implemented with the support of two national institutes and six regional public health institutes of India. The methodology adopted is consecutive sampling with unlinked anonymous testing.
2. HIV Sentinel Surveillance 2012-13 was conducted in Assam in 26 sites including 25 ANC sites and 1 STD site. For High Risk Group (HRG) populations, a nationwide Integrated Biological and Behavioral Surveillance (IBBS) are being currently carried out as a strategic shift to strengthen surveillance system among these populations.
3. The overall HIV prevalence among the ANC attendees, considered a proxy for prevalence among the general population was 0.16% in Assam during 2012-13, an increase from 0.09% during HSS 2010-11. The highest HIV prevalence was recorded in Kamrup-metro (0.75%) followed by Cachar (0.50%), Karbi-Anglong (0.50%), Dima-Hasao (0.50%) and Tinsukia (0.50%).
4. Analysis of consistent sites shows a rising trend in HIV prevalence among ANC clinic attendees in Assam during 2003-2013.
5. Thus, HSS 2012-13 shows that the HIV epidemic is showing a rising trend among the ANC attendees in Assam although at a low level. Pockets of high HIV prevalence and greater vulnerability continue to exist in general population as well as high risk groups and will require focused attention.

INTRODUCTION:

HIV Sentinel Surveillance is one of the key components of the second generation surveillance system in India to track the HIV epidemic in the country with objective of understanding the levels and trends of HIV epidemic among different population groups as well as to identify the spread of the epidemic to new pockets.

HIV Sentinel Surveillance (HSS) is the core focus of India's National AIDS Control Programme (NACP) and response strategy. Since the detection of first HIV case at Chennai in 1986, the initial focus of Government of India was on sero-surveillance. The Surveillance system in India was built on the basis of the early sero-surveillance initiatives undertaken during the epidemic's first decade, coupled with the introduction of standardized and globally accepted methodologies. Since 1998, the National AIDS Control Organization in collaboration with National Institute of Health and Family welfare and the National Institute of Medical statistics has been conducting rounds of HIV Sentinel Surveillance at designated sites all over the country. Over the years, the number of sites has increased from 176 in 1998 to 1359 in 2010-11. The number of surveillance sites among ANC attendees from 476 sites in 2003 to 750 sites in HSS 2012-13.

The population groups and sentinel sites are chosen on the basis of the dynamics of HIV transmission. Those with high risk behavior includes patients with sexually transmitted infections (STIs) attending the STD clinics, Female sex workers, Men having sex with men, Injecting drug users. The general population or those with low risk is represented by pregnant women attending the antenatal clinics.

Under the leadership of National AIDS Control Organization with State AIDS Control Society as the local agency, HSS was initiated in Assam in 1998 at 4 sites including 2 ANC and 2 STD sites. Over the years there has been a gradual increase in the number sites covering almost all the districts in the state.

OBJECTIVES OF HIV SENTINEL SURVEILLANCE:

1. To monitor trend in prevalence of HIV infection over time
2. To monitor the distribution and spread of HIV prevalence in different population subgroups and in different geographical areas

3. To identify emerging pockets of HIV epidemic in the country.

IMPORTANT APPLICATIONS OF HIV SENTINEL SURVEILLANCE DATA:

1. To estimate and project burden of HIV at state and national levels
2. To support programme prioritization and resource allocation
3. To assist evaluation of programme impact
4. Advocacy.

EXPANSION OF SURVEILLANCE SYSTEM IN ASSAM:

Over the years, the surveillance network has expanded from 4 in 1998 to 48 Sites in 2010-11 when almost all districts are covered under surveillance system. Surveillance among ANC attendees was conducted in 25 sites during HSS 2012-13. (Table 1).

Table 1: Scale-up of sentinel sites in Assam, 1998-2011.

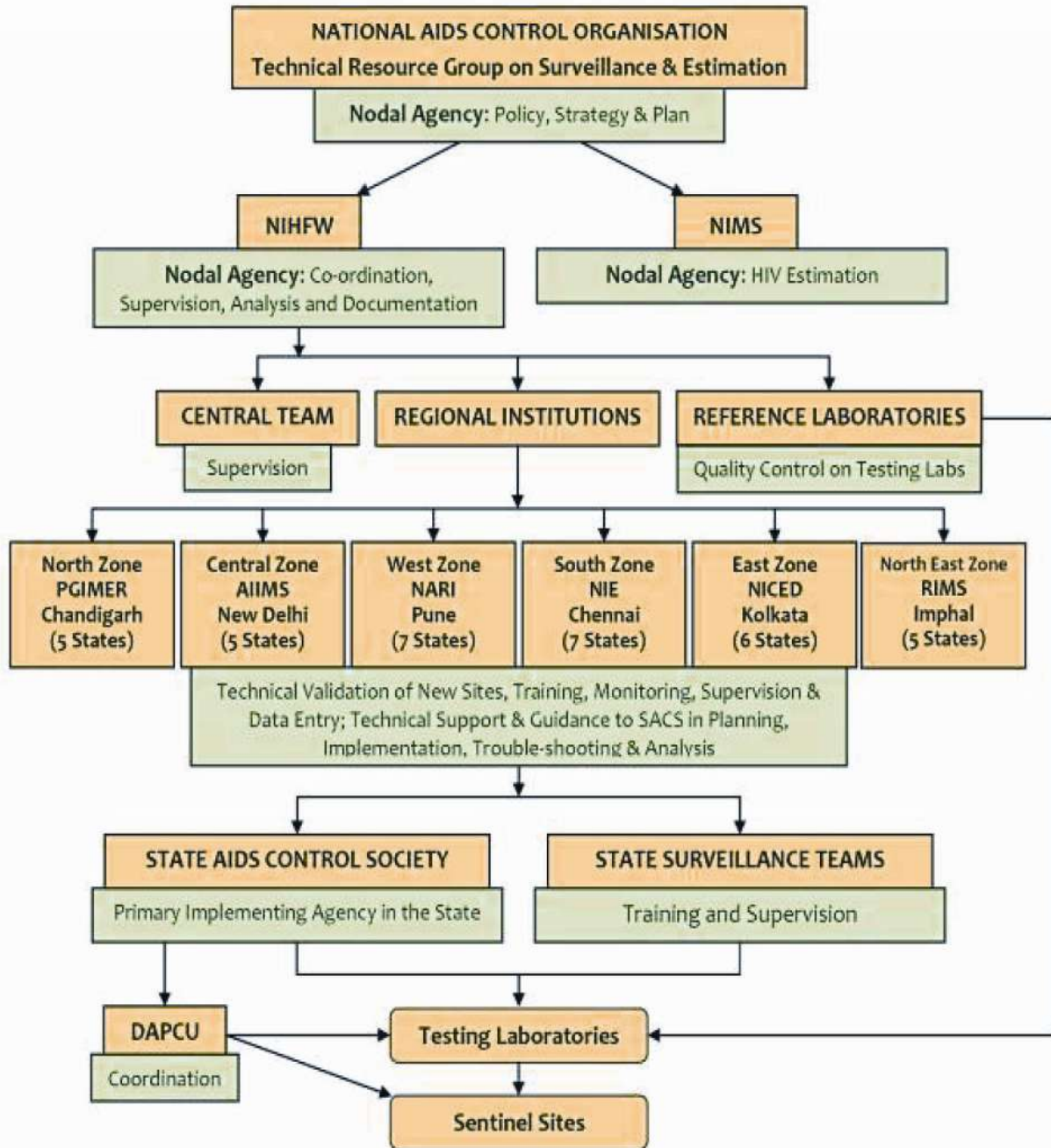
Site Type	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008-09	2010-11	2012-13
ANC	2	2	2	3	4	7	5	4	15	16	16	20	25
STD	2	2	2	2	5	6	5	5	9	9	9	9	1
FSW	-	-	-	-	-	-	2	4	11	10	9	15	-
IDU	-	-	-	-	-	1	1	2	2	2	2	2	-
MSM	-	-	-	-	-	-	-	-	1	1	1	2	-
Total	4	4	4	5	9	14	13	15	38	38	37	48	26*

*IBBS is being currently implemented among the HRG populations (3 FSW, 2MSM and 2 IDU domains)

IMPLEMENTATION STRUCTURE:

HIV Sentinel Surveillance has a robust structure for planning, implementation and supervision at national, regional and state levels. The structure and key functions of each agency involved in HSS are shown in figure 1.

Figure 1: Implementation structure of HIV Sentinel Surveillance



New initiatives during HSS 2012-13

- **Pre-Surveillance Sentinel Site evaluation**

As per directive of NACO, a pre-surveillance evaluation of the sentinel sites was carried out to understand the operation issues in the facility like OPD attendance, availability of the HIV/AIDS services, human resources, etc. The evaluation data was analyzed for site specific planning and corrective measures.

- **Bi-lingual data forms**

The data forms for the collection of surveillance data was translated in Assamese for the convenience of the site personnel.

- **Structured State level trainings**

The trainings were conducted in two batches with the structured training materials shared by NACO and involved active participation of the site personnel in the group exercises. The State Surveillance team members were allotted sessions during the trainings and were available for the entire duration of the trainings. There was active participation from Regional Institute-RIMS during both batches of trainings.

- **Daily Reporting from the ANC sites**

Assam SACS maintained a daily reporting system for the number of samples collected during the three months of the Surveillance period. The site personnel reported to a designated staff at SACS every evening to update on the number of samples collection. This initiated helped HSS focal person to monitoring the progress in HSS and provide updated information to higher officials.

METHODOLOGY:

This section highlights the methodology adopted under the HSS 2012-13 round, including selection of sentinel population, sites, the sampling process, methods of HIV testing, data collection and analysis.

Sentinel Population:

Under HSS 2012-13, information on prevalence was collected from the general population as well as population considered to be at higher risk for infection and transmission. Blood specimen was taken consensually from the sample of ANC attendees (as proxy for the general population), STD clinic attendees and screened for HIV. Information on certain demographic characteristics and limited data on risk behavior was also collected.

HIV Sentinel Surveillance Sites:

The number of HSS sites under the 2012-13 round was 26. The sites for the 2012-13 round were identified according to a list of selection criteria. The factors taken into account included whether the sites provide information on the selected sentinel population, whether information on the client make-up of the site was available to achieve the required sample size, whether blood was drawn from patients as part of routine care, etc.

Sample size and inclusion criteria:

The number of individuals included in a sentinel surveillance sample was guided by the need to determine trends in HIV prevalence over time and identify sub-populations at an increased risk of infection. The sample size needed to be large enough to detect the difference between two prevalence estimates for instance between two ANC sites or two surveillance rounds. The sample size was determined using a statistical approach that requires firstly, an estimate of HIV prevalence in the population to be surveyed. The second factor was the margin of error considered acceptable. A reasonable margin of error of $\pm 3\%$ was applied. The third was the level of confidence desired or the confidence intervals desired. A 90% confidence interval will mean that if the survey was conducted 100 times, the prevalence in 90 surveys out of the 100 would fall within the specified margin of error. For HSS 2012-13, a confidence interval of 90%

was applied. The sample size was balanced against the technical and financial resources available for survey implementation and data collection.

A sample size of 400 for ANC sites and 250 for STD sites was calculated. As the focus was on ensuring adequate representation of women in the sample collected at STD sites, the sample of 250 at the STD sites was completed from two sources. A total of 150 samples were collected from the STD clinic, while 100 were from the gynecology clinic.

The eligibility criteria for HSS included an age range of 15-49 years to facilitate comparability across sites. Also, sampling was restricted to the first visit of the client during the surveillance period.

The duration of sampling extended from 1st January, 2013 to 31st March, 2013.

Sampling scheme:

The scheme followed for all sites was consecutive sampling. According to this method, all individuals who visits the clinic and who meets the inclusion criteria were included in the survey until the required sample size was obtained or the survey period was over.

Method for blood sample collection:

In HSS, HIV testing is done on a portion of blood specimen collected for routine diagnostic purposes (such as syphilis, Hb) after removing all personal identifiers. This testing strategy is known as Unlinked Anonymous testing. The method for blood sample collection varies according to the HSS site.

At ANC and STD sites, whole venous blood was collected from the sample population from which serum was separated and split into two parts. One part, preserved with the individual identifiers, was tested for routine diagnostic purposes while the second part, without personal identifiers, was coded separately such that it may not be linked back to the individual. This coded specimen along with filled individual formats for HIV and syphilis was sent to recognized laboratories under cold conditions for testing for HIV and syphilis. HIV antibodies were tested using two rapid tests to determine whether the sample was positive or negative. For the HRG (TI) sites, DBS method for blood sample collection was done. Under the DBS method, blood

specimens are collected by applying a few drops of blood drawn by lancet from finger, heel or toe onto specially manufactured absorbent filter paper. Once the blood saturates the paper, it is air-dried for several hours in low gas-permeability plastic bags, with the addition of a desiccant to reduce humidity.

Ensuring quality of HIV testing:

The reliability of ELISA/Rapid test results was ensured through quality control and EQAS mechanisms that were put in place at the laboratory level.

The key elements of the methodology of HSS are summarized in table 2.

Table 2: Methodology of HIV Sentinel Surveillance¹

	High risk groups: IDU/MSM/FSW/TG	Bridge population: STD/SMM/LDT	General Population: Pregnant women attending ANC clinics
Sentinel site	Targeted interventions (TI) Projects	STD clinic, TI Projects	Antenatal clinic
Sample Size	250	250	400
Duration	3 months	3 months	3 months
Frequency	Once in 2 years	Once in 2 years	Once in 2 years
Sampling method	Consecutive/random	Consecutive	Consecutive
Age-Group	15-49 years	15-49 years	15-49 years
Testing Strategy	Unlinked anonymous with informed consent	Unlinked anonymous at STD, With informed consent at TI sites	Unlinked Anonymous
Blood specimen	Dried blood spot	Serum at STD, DBS at TI sites	Serum
Testing Protocol	Two Test Protocol	Two Test Protocol	Two Test Protocol

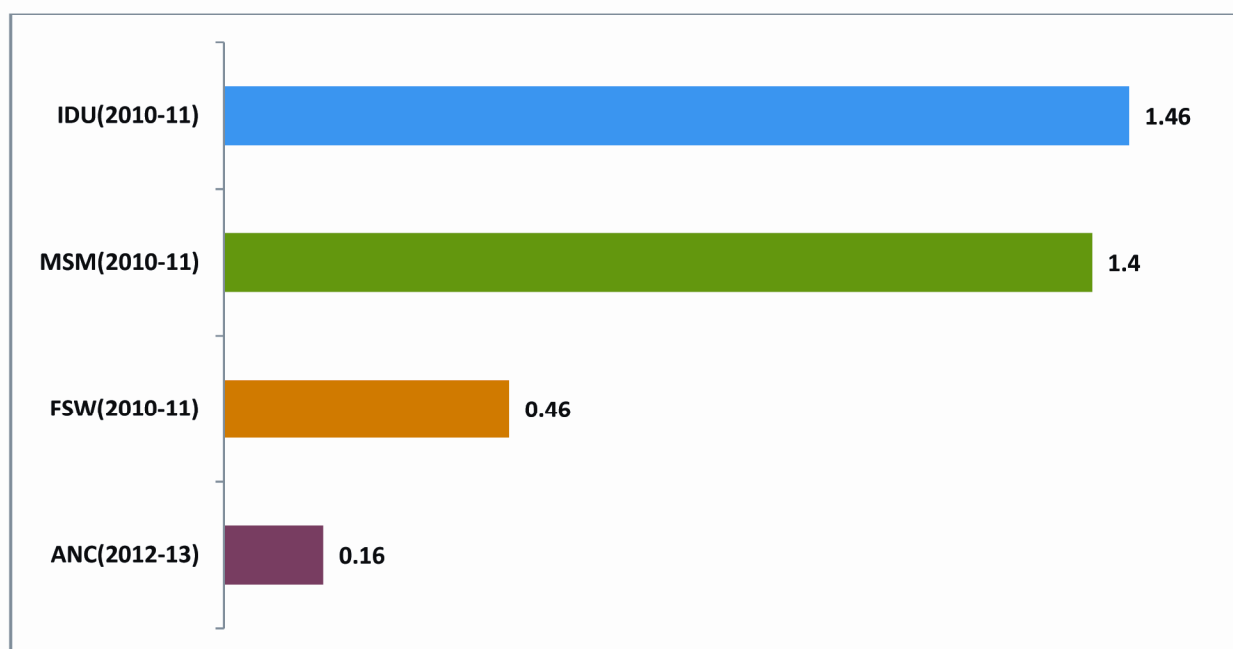
¹The table highlights the methodology for all population groups and has been kept for the interest of the reader. However, HSS 2012-13 was conducted in ANC & STD sites only.

Results:

Overview of HIV levels and trends at state level

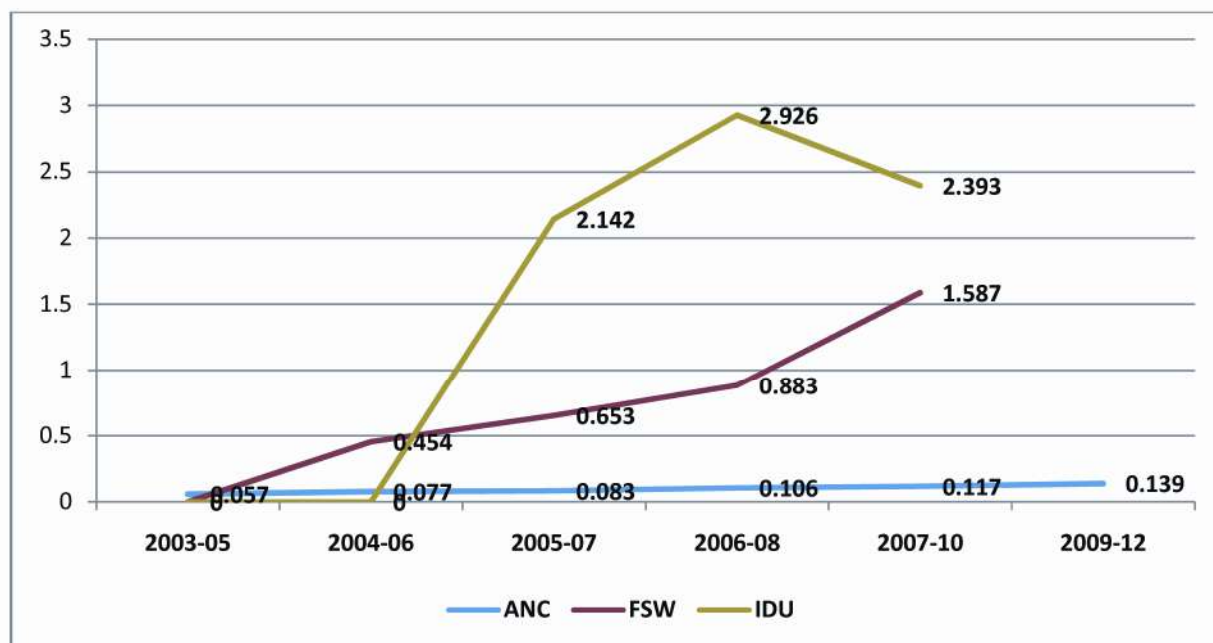
Figure 2. Depicts the overall HIV prevalence at state level among ANC clinic attendees from HSS 2012-13 and high risk groups from the HSS 2010-11. The HIV prevalence observed among ANC clinic attendees, considered as a proxy for HIV prevalence in the general population, during 2012-13 was 0.16%.

Figure 2: HIV Prevalence (%) among ANC clients (2012-13) & other population groups (2010-11), Assam



Trends in HIV prevalence among different population groups was derived using three year moving averages of HIV prevalence at consistent sites from 2003 to 2013 for ANC and from 2003 to 2011 for HRGs. In Assam, an increasing trend in HIV prevalence was noted among ANC population till 2013 and among FSW population till 2011. Among the IDUs, a stable trend is observed in Assam. As there were no consistent sites for MSM in the state, trend analysis among them couldn't be done. [Figure 3]

Figure 3: HIV Prevalence trend across different population groups, Assam, 2010-11¹

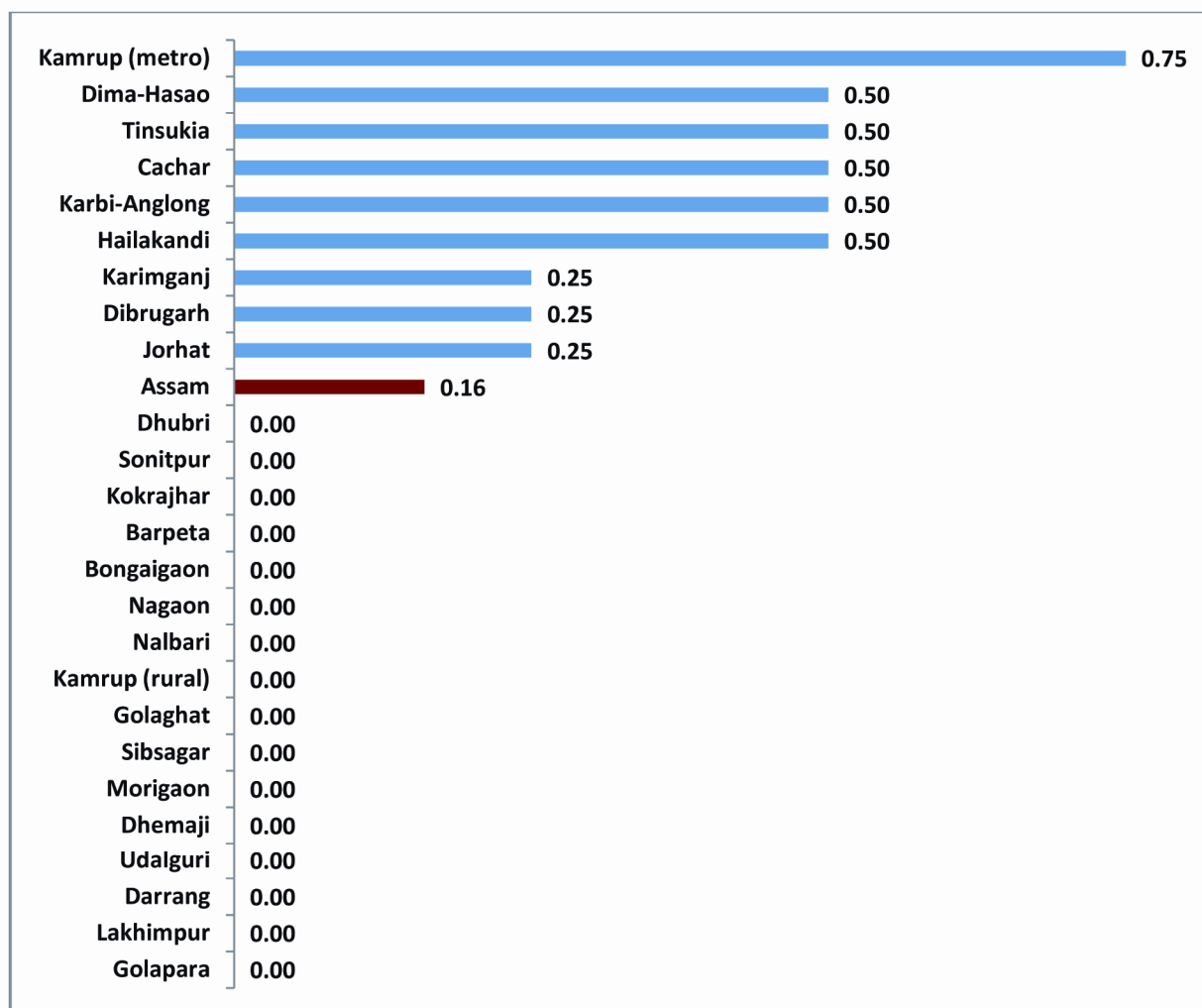


¹3-year moving averages based on consistent sites: ANC-13 sites, FSW-2 sites & IDU-2 sites.

HIV levels among ANC attendees at the district level

Figure.4 shows the district wise HIV Prevalence among the ANC attendees. It is noted that all the districts in the state have HIV Prevalence of < 1%. Kamrup (metropolitan) recorded the highest HIV prevalence of 0.75% while 5 districts, namely, Dima-Hasao, Tinsukia, Cachar, Karbi-Anglong and Hailakandi recorded HIV prevalence of 0.50%. Three districts, namely, Karimganj, Dibrugarh and Jorhat recorded HIV prevalence of 0.25%.

Figure 4: HIV Prevalence (%) at ANC sites, Assam and districts, 2012-13



District-wise comparison HIV prevalence among ANC attendees

Analysis of the district level HIV prevalence data for the last three rounds of HIV sentinel surveillance was done for consistent sites to understand the district level trend in HIV prevalence. In lower Assam, higher HIV prevalence is recorded in Kamrup (metropolitan) and Bongaigaon districts during the three rounds [Figure 5]. In upper Assam, higher HIV prevalence was recorded in Tinsukia and Jorhat districts, while HIV prevalence of 0.25% was recorded in Nagaon and Morigaon districts during one round of HSS [Figure 6]. Karimganj, Hailakandi and Karbi-Anglong in south Assam recorded higher HIV prevalence in the recent rounds. [Figure 7]

Figure 5: HIV Prevalence (%) in the consistent HSS sites (districts) of lower Assam in last three rounds of HSS.

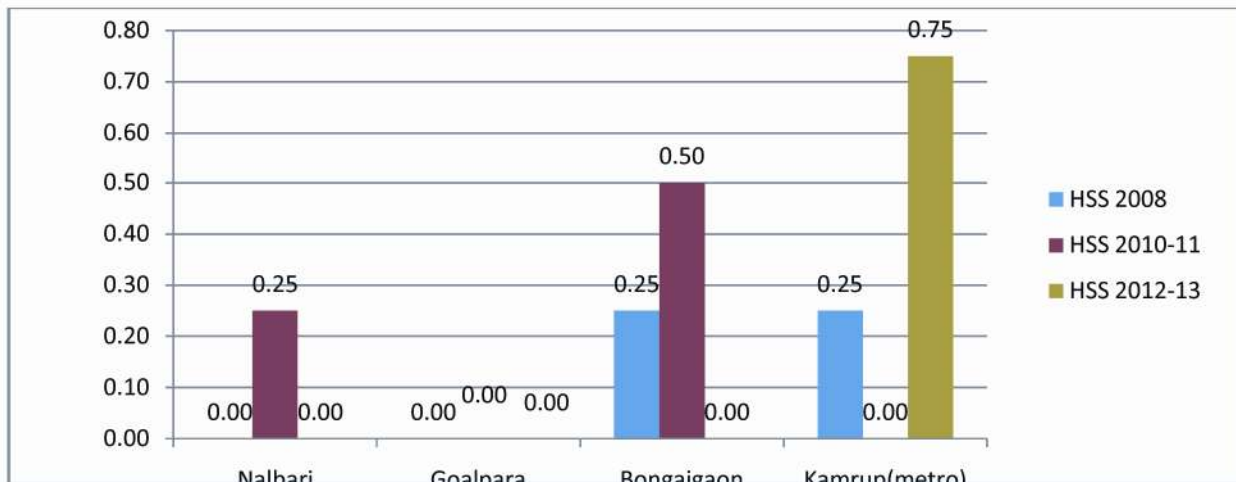


Figure 6: HIV Prevalence (%) in the consistent HSS sites (districts) of upper Assam in last three rounds of HSS.

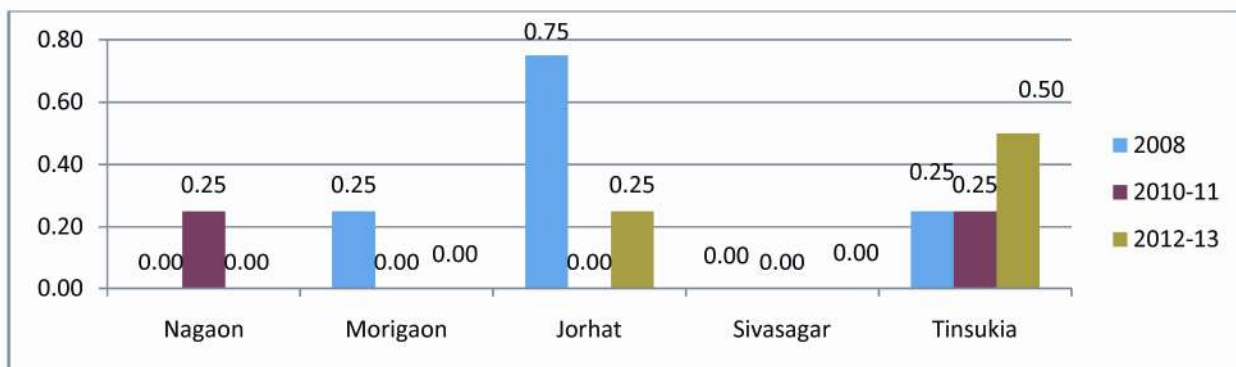
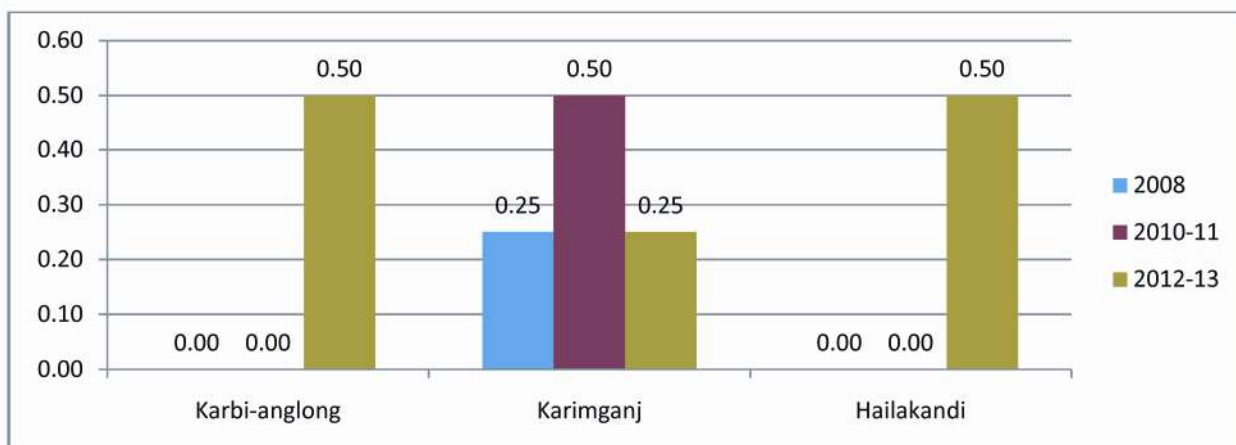


Figure 7: HIV Prevalence (%) in the consistent HSS sites (districts) of south Assam in last three rounds of HSS.



In the districts of north Assam, no HIV positive case was detected during the last three rounds of HSS at ANC sites and therefore it is not represented in figures.

Socio-demographic characteristics of the ANC attendees:

Table 3 describes the socio-demographic characteristics of the ANC attendees at the HSS sites during HSS 2012-13. Almost half (46.53%) of the ANC attendees were in the 20-24 years age group. Majority (79.27%) were from the rural areas. 43.97% of the ANC attendees were educated till 10th standard and 23.93% had education till graduation. More than half (55.08%) of the ANC attendees had come for ANC checkup of their first pregnancy while 32.34% were in their second pregnancy. Majority (86.17%) of the ANC attendees were brought/referred for ANC check up by ASHA/ANMs.

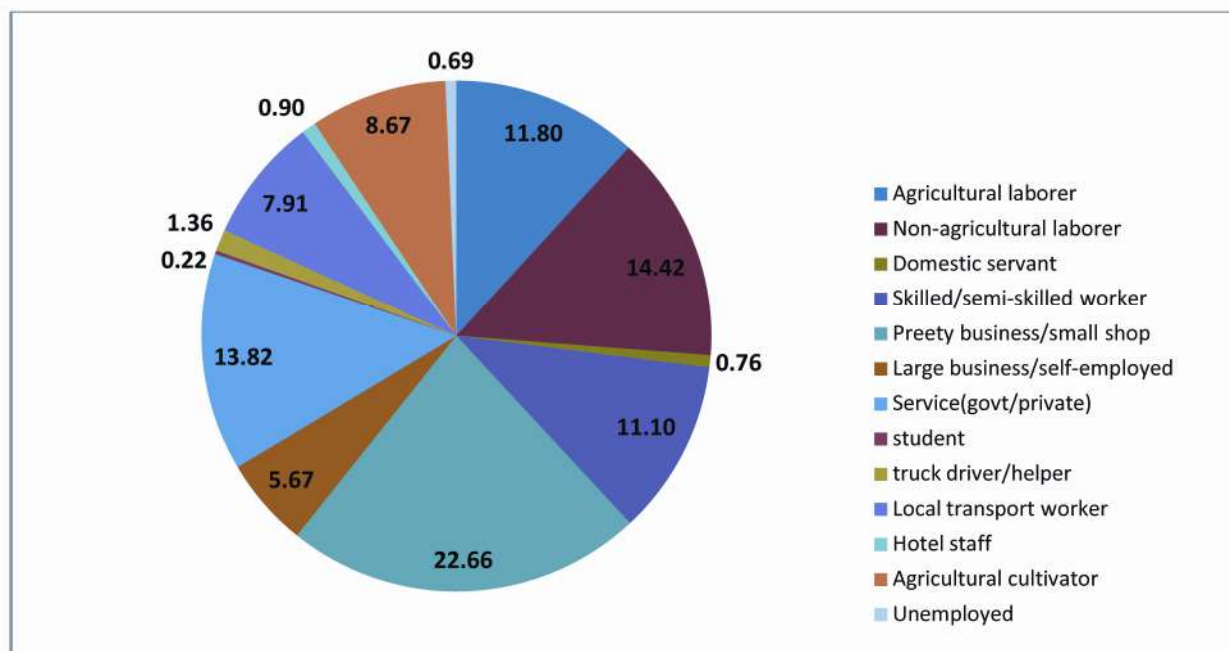
Table 3: Socio-demographic characteristics of ANC attendees, HSS 2012-13

Variable	Frequency	Percentage
Age group (n=9985)		
15-19	933	9.34
20-24	4647	46.53
25-29	3123	31.27
30-49	1282	12.83
Residence (n=9925)		
Urban	2057	20.72
Rural	7868	79.27
Education (n=9963)		
Illiterate	1386	13.91
Literate and till 5 th standard	1714	17.20
6 th to 10 th standard	4381	43.97
11 th to Graduation	2385	23.93
Post-graduation	97	0.97
Order of Pregnancy (n=9979)		
First	5497	55.08

Second	3228	32.34
Third	974	9.76
Fourth and more	280	2.80
Source of Referral of the pregnant women (n=9957)		
Self-referral	403	4.04
Family/relatives/ friends	841	8.44
NGO	36	0.36
Private(doctor/nurse)	95	0.95
Govt(including ASHA/ANM)	8580	86.17
ICTC/ART center	2	0.02

22.66% of the spouses of ANC attendees were pretty business/small shop owners. Other common occupations of the spouses are Non-agricultural laborer (14.42%), service (13.82%), and agricultural laborer (11.80%). Skilled/semi-skilled worker (11.10%) and Local transport workers (7.91%) were also significant. [Figure 8]

Figure 8: Occupation (%) of the spouses of ANC attendees, HSS 2012-13



Analysis of the migration status of the spouse in the last three rounds shows an increase in the proportion of migrant spouse from 3.40% in 2008 to 5.31% in 2012-13. [Table 4]

Table 4: Migration status of spouse of ANC attendees in the last three rounds of HSS.

Migration status	2008 (n=5414)		2010-11 (n=7864)		2012-13 (n=9949)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	183	3.4	257	3.26	529	5.31
No	5231	96.6	7606	96.71	9417	94.65
Not applicable*	0	0.00	1	0.01	3	0.03

*For widow/ unmarried pregnant women

Differentials for HIV Prevalence among the ANC attendees:

Table 3 depicts the HIV positivity among ANC attendees by age group. Higher HIV positivity is noted in the 20-24 years age group in both urban and rural areas. It may be noted that HIV positivity is higher in 30-49 years age group due to the small number of testing in that group.

Table 3: HIV Prevalence among ANC attendees by age group, 2012-13

Age group	Urban			Rural		
	Number tested	Number Positive	HIV % positive	Number tested	Number Positive	HIV % positive
15-19	183	0	0.00	741	1	0.13
20-24	881	3	0.34	3738	5	0.13
25-29	700	1	0.14	2405	3	0.12
30-49	293	1	0.34	948	2	0.21

In HSS 2012-13, HIV positivity was higher among illiterates (1.08%) in urban areas and 5th standard educated (0.21%) in the rural areas. [Table 4]

Table 4: HIV Prevalence among ANC attendees by Education, 2012-13

Education	Urban			Rural		
	Number tested	Number Positive	HIV % positive	Number tested	Number Positive	HIV % positive
Illiterate	184	2	1.08	1191	1	0.08
Literate till 5 th Standard	285	1	0.35	1419	3	0.21
6 th -10 th Standard	822	1	0.12	3530	4	0.11
11 th -Graduation	712	1	0.14	1664	3	0.18
Post-graduation	50	0	0.00	46	0	0.00

In urban areas, higher HIV positivity is noted among first(0.17%) and second (0.29%) order pregnancy whereas in rural areas, HIV positivity was high among first (0.16%) pregnancy. Please note that the number tested was considered while interpreting the level of HIV positivity.

Table 5: HIV Prevalence among ANC attendees by Gravida, 2012-13

Order of Pregnancy	Urban			Rural		
	Number tested	Number Positive	HIV % positive	Number tested	Number Positive	HIV % positive
First	1156	2	0.17	4308	7	0.16
Second	675	2	0.29	2537	1	0.03
Third	180	1	0.55	784	2	0.25
Fourth or more	45	0	0.00	234	1	0.42

From table 6 it is seen that in urban areas, HIV positivity was higher among spouses of ANC attendees who works as skilled/semi-skilled worker (0.70%), local transport worker (0.49%) and non-agricultural laborer (0.46%). In rural areas, HIV positivity is higher among spouses working as truck driver/helper (0.87%), agricultural laborer (0.26%) and skilled/semiskilled worker (0.24%).

Table 6: HIV Prevalence among ANC attendees by spouse occupation, 2012-13

Spouse Occupation	Urban			Rural		
	Number tested	Number Positive	HIV % positive	Number tested	Number Positive	HIV % positive
Agricultural laborer	46	0	0.00	1122	3	0.26
Non-agricultural laborer	214	1	0.46	1212	2	0.16
Domestic servant	2	0	0.00	72	0	0.00
Skilled/semi-skilled worker	285	2	0.70	818	2	0.24
Petty business/small shop	485	0	0.00	1763	1	0.05
Large business/self-employed	186	0	0.00	375	0	0.00
Service (Govt/Pvt.)	536	1	0.18	839	1	0.11
Student	9	0	0.00	12	0	0.00
Truck driver/helper	21	0	0.00	114	1	0.87
Local transport worker (auto/taxi driver, rickshaw puller, etc)	201	1	0.49	578	1	0.17
Hotel staff	18	0	0.00	72	0	0.00
Agricultural cultivator/landholder	39	0	0.00	824	0	0.00
Unemployed	12	0	0.00	57	0	0.00
Not applicable (for never married/widow)	2	0	0.00	1	0	0.00

During HSS 2012-13, HIV positivity was higher among ANC attendees whose spouse were migrants in both urban (migrants Vs Non-migrants; 1.66% Vs 0.15%) and rural (migrants Vs Non-migrants; 0.98% Vs 0.09%).

Table 7: HIV Prevalence among ANC attendees by migration status of spouse, 2012-13

Migration status of spouse	Urban			Rural		
	Number tested	Number Positive	HIV % positive	Number tested	Number Positive	HIV % positive
Yes	120	2	1.66	406	4	0.98
No	1929	3	0.15	7434	7	0.09
Not Applicable*	2	0	0.00	1	0	0.00

*Widow/unmarried women

CONCLUSION:

India has the largest and one of the best HIV surveillance systems in the world. HIV sentinel surveillance provides insights on the levels and trends of HIV among different population groups covering almost all the districts in the country. Data from HIV sentinel surveillance is also used for HIV estimations and it also helps in formulating policy decision.

Findings from HSS 2012-13 show that the level of the HIV epidemic in Assam among different population groups is still low. However, a rising trend is noted among the general population (represented by ANC attendees) and among female sex workers. Analysis of the differentials of HIV prevalence from HSS 2012-13 shows higher HIV positivity among Spouses of ANC attendees working as truck driver, local transport worker, agricultural and non-agricultural laborer, etc. It is also noted that the HIV prevalence is higher among ANC attendees with migrants' spouses.

The above scenario indicates the need to strengthen the prevention interventions in the state among the bridge populations as mentioned above without losing the focus on the high risk groups. Further, the strategies and approaches should be customized to the patterns of vulnerabilities in the state. Surveillance data helps the programme in identifying these vulnerabilities, thereby guiding appropriate programme response to contain the HIV epidemic. Therefore, the findings of the HSS 2012-13 will be used for effective programme planning at the state and district level.

ANNEX 1: Distribution of HIV Sentinel sites, district-wise and typology-wise (2012-13)*

District	ANC	STD	FSW	MSM	IDU	Total
Baksa	0	-	-	-	-	0
Barpeta	1	-	-	-	-	1
Bongaigaon	1	-	-	-	-	1
Cachar	1	-	-	-	-	1
Chirang	0	-	-	-	-	0
Darrang	1	-	-	-	-	1
Dhemaji	1	-	-	-	-	1
Dhubri	1	-	-	-	-	1
Dibrugarh	1	-	-	-	-	1
Goalpara	1	-	-	-	-	1
Golaghat	1	-	-	-	-	1
Hailakandi	1	-	-	-	-	1
Jorhat	1	-	-	-	-	1
Kamrup (metro)	1	-	-	-	-	1
Kamrup (rural)	1	-	-	-	-	1
Karbi-Anglong	1	-	-	-	-	1
Karimganj	1	-	-	-	-	1
Kokrajhar	1	1	-	-	-	2
Lakhimpur	1	-	-	-	-	1
Morigaon	1	-	-	-	-	1
Nagaon	1	-	-	-	-	1
Nalbari	1	-	-	-	-	1
Dima-Hasao	1	-	-	-	-	1
Sibsagar	1	-	-	-	-	1
Sonitpur	1	-	-	-	-	1
Tinsukia	1	-	-	-	-	1
Udalguri	1	-	-	-	-	1
ASSAM	25	1	-	-	-	26

*HSS 2012-13 was conducted only in ANC & STD sites as HRG surveillance is being done as IBBS.

ANNEX 2: HIV Prevalence among ANC clinic attendees, district-wise (2003-13)

District	2003	2004	2005	2006	2007	2008-09	2010-11	2012-13
Baksa	-	-	-	-	-	-	-	-
Barpeta	-	-	-	-	-	-	-	0.00
Bongaigaon	-	-	-	-	-	0.25	0.50	0.00
Cachar	-	-	-	-	-	-	0.00	0.50
Chirang	-	-	-	-	-	-	-	-
Darrang	-	-	-	0.00	0.00	0.00	0.00	0.00
Dhemaji	-	-	-	0.00	0.00	0.00	0.00	0.00
Dhubri	-	-	-	-	-	-	-	0.00
Dibrugarh	-	-	-	-	-	-	0.00	0.25
Goalpara	-	-	-	-	0.00	-	0.00	0.00
Golaghat	-	-	-	-	-	-	0.00	0.00
Hailakandi	-	-	-	0.36	-	0.00	0.00	0.50
Jorhat	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.25
Kamrup (metro)	-	-	-	0.00	-	0.25	0.00	0.75
Kamrup (rural)	-	-	-	-	-	-	0.00	0.00
Karbi-Anglong	-	-	-	-	-	0.00	0.00	0.50
Karimganj	-	-	-	0.00	0.00	0.25	0.50	0.25
Kokrajhar	-	-	-	-	-	-	-	0.00
Lakhimpur	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00
Morigaon	-	-	-	0.00	0.26	0.25	0.00	0.00
Nagaon	0.00	0.62	0.00	0.25	0.00	0.00	0.25	0.00
Nalbari	-	-	-	0.00	0.00	0.00	0.25	0.00
Dima-Hasao	-	-	-	-	-	-	-	0.50
Sibsagar	-	-	-	0.00	0.25	0.00	0.00	0.00
Sonitpur	-	-	-	-	-	-	-	0.00
Tinsukia	-	-	-	-	-	0.25	0.25	0.50
Udalguri	-	-	-	-	0.00	0.00	0.00	0.00
Note: 1. Based on valid sites (75% target achieved), 2. All figures in percentages								

Foreword

The National AIDS Control Programme (NACP) is strongly evidence-based and evidence-driven. Based on evidence from 'Triangulation of Data' from multiple sources and giving due weightage to vulnerability, the organizational structure of NACP has been decentralized to identified districts for priority attention.

The programme has been successful in creating a robust database on HIV/AIDS through the HIV Sentinel Surveillance system, monthly programme reporting data and various research studies. However, the district level focus of the programme demands consolidated information that helps better understand HIV/AIDS scenario in each district, to enable effective targeting of prevention and treatment interventions to the vulnerable population groups and geographic areas.

This technical document prepared by the SIMU division of Assam SACS is a follow up exercise of the detailed District epidemiological profiles report 2013 prepared using the information collected and analyzed during the data triangulation exercise conducted during 2011-12. The 2013 report provided useful information support to the district level health functionaries but at the same time we were informed that a concise report will be even better. So, keeping this in mind, the 2014 report is being prepared in a factsheet format which is adapted from the District Epidemiological factsheets prepared by NACO and using updated information. The reports are prepared by some of the ICTC, PPTCT, Blood bank and STI counselors who are supported by a group of Public Health experts from medical colleges and state programme officials and we are grateful to each of them for their support in this activity. We also thank the Monitoring and Evaluation (M&E) division of NACO for their guidance in implementing this activity.



Chandan Barua, ACS
Project Director
Assam SACS

ANNEX 4: HIV Prevalence among IDU, district-wise (2003-11)

District	2003	2004	2005	2006	2007	2008-09	2010-11
Baksa	-	-	-	-	-	-	-
Barpeta	-	-	-	-	-	-	-
Bongaigaon	-	-	-	-	-	-	-
Cachar	-	-	-	-	-	-	-
Chirang	-	-	-	-	-	-	-
Darrang	-	-	-	-	-	-	-
Dhemaji	-	-	-	-	-	-	-
Dhubri	-	-	-	-	-	-	-
Dibrugarh	-	-	-	-	-	-	-
Goalpara	-	-	-	-	-	-	-
Golaghat	-	-	-	-	-	-	-
Hailakandi	-	-	-	-	-	-	-
Jorhat	-	-	-	-	-	-	-
Kamrup (metro)	-	-	-	-	1.90	3.20	2.00
Kamrup (rural)	-	-	-	-	-	-	-
Karbi-Anglong	-	-	-	-	2.38	4.09	0.87
Karimganj	-	-	-	-	-	-	-
Kokrajhar	-	-	-	-	-	-	-
Lakhimpur	-	-	-	-	-	-	-
Morigaon	-	-	-	-	-	-	-
Nagaon	-	-	-	-	-	-	-
Nalbari	-	-	-	-	-	-	-
Dima-Hasao	-	-	-	-	-	-	-
Sibsagar	-	-	-	-	-	-	-
Sonitpur	-	-	-	4.00	-	-	-
Tinsukia	-	-	-	-	-	-	-
Udalguri	-	-	-	-	-	-	-
Note: 1. Based on valid sites (75% target achieved), 2. All figures in percentages							

ANNEX 5: HIV Prevalence among MSM, district-wise (2003-11)

District	2003	2004	2005	2006	2007	2008-09	2010-11
Baksa	-	-	-	-	-	-	-
Barpeta	-	-	-	-	-	-	-
Bongaigaon	-	-	-	-	-	-	-
Cachar	-	-	-	-	-	-	-
Chirang	-	-	-	-	-	-	-
Darrang	-	-	-	-	-	-	-
Dhemaji	-	-	-	-	-	-	-
Dhubri	-	-	-	-	-	-	-
Dibrugarh	-	-	-	-	-	-	-
Goalpara	-	-	-	-	-	-	-
Golaghat	-	-	-	-	-	-	-
Hailakandi	-	-	-	-	-	-	-
Jorhat	-	-	-	-	-	-	-
Kamrup (metro)	-	-	-	0.78	2.78	0.41	2.02
Kamrup (rural)	-	-	-	-	-	-	-
Karbi-Anglong	-	-	-	-	-	-	-
Karimganj	-	-	-	-	-	-	-
Kokrajhar	-	-	-	-	-	-	-
Lakhimpur	-	-	-	-	-	-	-
Morigaon	-	-	-	-	-	-	-
Nagaon	-	-	-	-	-	-	-
Nalbari	-	-	-	-	-	-	0.79
Dima-Hasao	-	-	-	-	-	-	-
Sibsagar	-	-	-	-	-	-	-
Sonitpur	-	-	-	-	-	-	-
Tinsukia	-	-	-	-	-	-	-
Udalguri	-	-	-	-	-	-	-

Note: 1. Based on valid sites (75% target achieved), 2. All figures in percentages



**Assam State AIDS Control Society
Khanapara, Guwahati-22**