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Retrospectrive Study of Six District Level HIV/Aids Epidemiological Profiles of Assam

Prasanta Kr. Baruah

Associate Professor of Pathology, Gauahati Medical College & Hospital, Guwahati, Assam, India and Deputy Director of Assam AIDS Control Society, Khanapara-22, Assam, India

Abstract: ***Incidence of sero-positivity among the high risk population has increasing among the few districts of Assam especially in the border areas, along the National Highway where population of Migrants, truckers and other persons belongs to the persons in the categories of daily wage earners, short term contractual workers in tea gardens, oil fields, gas crackers projects, short term high way laborers. Among the most commonly associated male and female commercial sex workers, migratory population who bears much more risk among the patients attending in Obstetrics and Gynecology deptt. Of different district level hospitals, persons attending in STD clinic, ICCTC clinic and clients who selectively attend and counsel for PPTCT clinic has been reviewed. Objectives: Retrospectrive Study Of District HIV/AIDS Epidemiological Profiles 6 (Karimganj,Cachar, Golaghat, Hailakandi, Kamrup (Metro), Kamrup (Rural)districts of Assam 2013. Methodology: District Epidemiological Profiling (DEP): DEP has two broad components: 1) Descriptive Analysis and 2) Data Triangulation. 1) Current state of HIV epidemic (levels, trends, differentials and burden of HIV; profile of PLHIV) 2) Drivers of the epidemic (size and profile of risk groups; vulnerabilities STI, risk behavior, Migration, contextual factors/regional vulnerabilities) 3) Programme response and gaps. 4) Information gaps. Conclusion: HIV positivity rates among HSS-ANC, PPTCT and Blood Bank attendees are used to represent levels and trends of HIV Infection among general population. Level is interpreted as high (HIV positivity ≥1%), moderate (HIV positivity between 0.5-1%) or low (HIV positivity ≤ 0.5%). HIV trend is interpreted as rising, stable or declining. HIV positivity rates among HSS-HRG, HSS-STD and ICTC general clients are used to represent levels and trends of HIV Infection among high risk groups and vulnerable population. Level is interpreted as high (HIV positivity ≥ 10%), moderate (HIV positivity between 5-10%) or low (HIV positivity ≤ 5%). HIV trend is interpreted as rising, stable or declining. Karimganj: FSW (100%) is the main HRG group in the district. More than half of the FSW (55%) are street based. 2276 episodes of STI/RTI were treated in 2013 among which 0.48% were Genital Ulcer Disease cases. As per 2001 census, majority of the out-migration from the district happens to Mizoram and Nagaland. Cachar: HSS-ANC data 2013 shows that the level of HIV prevalence among the ANC attendees is moderate (0.50%). PPTCT data shows an increasing trend in HIV positivity among the pregnant women during 2009 to 2013. Golaghat: Based on 2013 data, the level of HIV positivity among the PPTCT (0.58%) and Blood Bank (0.6%) clients was low with a rising trend between 2011 to 2013. Hailakandi: As per HSS ANC 2013, the level of HIV prevalence among ANC attendees was moderate (0.50%). Kamrup (Metro): In 2013, the level of HIV positivity was low among the PPTCT (0.15%) and Blood Bank (0.12%) clients, with a stable trend in comparison to the last 4 years. Kamrup (Rural): In 2013, HIV positivity was low among ICTC attendees (2.47%) with a stable trend. In 2013, 563 episodes of STI/RTI were treated and the syphilis positivity rate among STI.***

Keywords: HIV positivity, HSS-STD, HRG, ICCTC etc.

Components of District Profiling	What it Does?	Guiding Elements	Action To Do	Output
Descriptive Analysis	Describes (What? Who? When? Where?)	Themes	Analyze Data & Describe the Themes	Descriptive Section of District Report
Triangulation	Explains (How? Why?)	Questions	Triangulate Data & Answer the Questions	Synthesis Section of District Report

Descriptive analysis of different datasets is organized into the following four thematic areas :

1. Introduction

These new HIV Estimates 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 National AIDS Control Organization (NACO) is known for scientific rigor 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, analyzed, disseminated and published to address programmatic needs in collaboration with experts and specialists from various institutions.

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 attendee's and the first ever Nationwide Integrated Biological and Behavioral Surveillance conducted among high risk groups in 2014-15.

a) Adult HIV Prevalence (15-49 years)

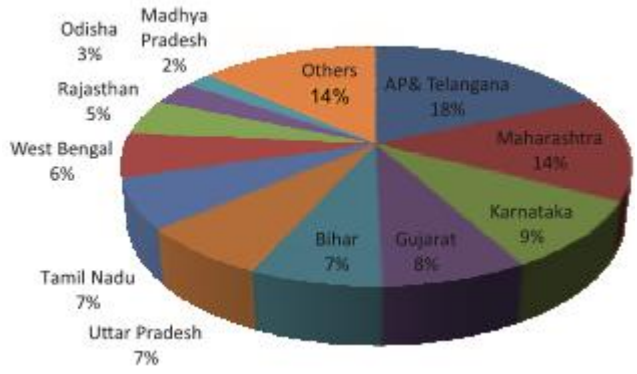
National adult (15–49 years) HIV prevalence is estimated at 0.26% (0.22%–0.32%) in 2015. In 2015, adult HIV prevalence is estimated at 0.30% among males and at 0.22% among females.

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%). 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.

b) People living with HIV

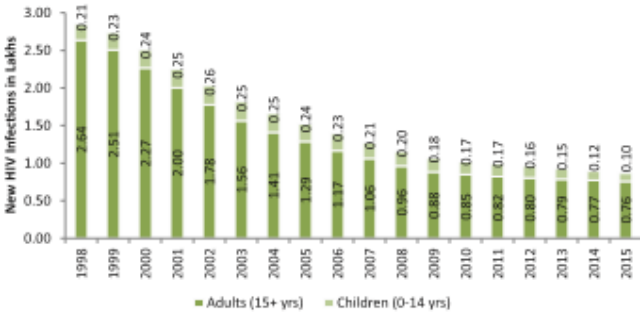
The total number of people living with HIV (PLHIV) in India is estimated at 21.17 lakhs (17.11 lakhs–26.49 lakhs) in 2015 compared with 22.26 lakhs (18.00 lakhs-27.85 lakhs) in 2007. Children (< 15 years) account for 6.54%, while two fifth (40.5%) of total HIV infections are among females.



c) 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).

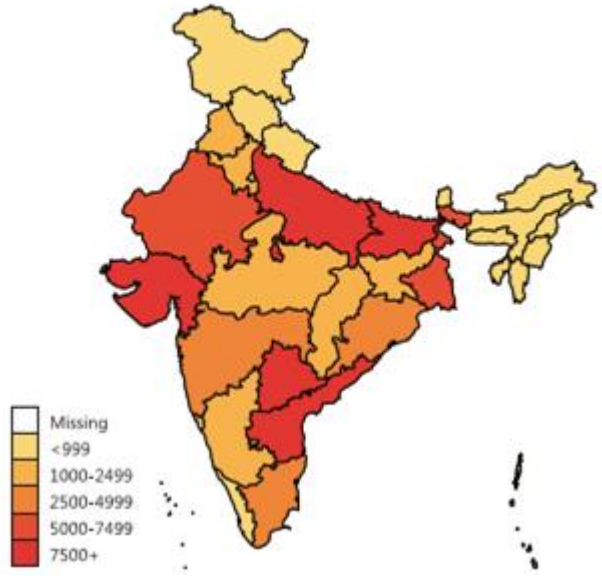
Figure 3. Estimated New HIV Infections in India, 1998–2015



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



The National AIDS Control Programme under National AIDS Control Organization has a strong focus on district level planning, implementation and monitoring of interventions for prevention and control of HIV/AIDS. This approach requires consolidated information for each district to understand the HIV epidemic scenario and to identify programme areas for priority attention.

During the past few years, greater information related to HIV has become available for a substantial number of districts in the country in the form of monthly programme reports, mapping and size estimations of risk groups, data from HIV Sentinel Surveillance, behavioral surveys research studies, etc. In view of this context, the Department of AIDS Control had undertaken a project titled "Epidemiological Profiling of HIV/ AIDS Situation at District and Sub-district Level using Data Triangulation"/"District Epidemiological Profiling (DEP)" in 25 states (539 districts) in two phases during 2009-10 and 2010-11.

The exercise of District Epidemiological Profiling involved two broad components –

e) Descriptive Analysis and Data Triangulation.

The **Former part** is guided by thematic areas and describes the 'What, Who, When & Where' of the HIV epidemic, while the latter **'Triangulation'** part explains the 'How and Why' of it by synthesizing data from multiple sources into a meaningful framework. The available epidemiological data, behavioral/ vulnerability data and programme data for the district level were compiled and analyzed to get a comprehensive picture of the HIV/AIDS epidemic scenario, in order to guide programme decisions appropriately in each district.
The important outcomes of the District Epidemiological Profiling exercise included the generation of reports describing the HIV profile and programme response in each district, identification of information gaps for planning strategic information activities, capacity building of district level personnel in data management, institutional strengthening and fostering linkages between programme units and academic institutions for addressing strategic information needs in the districts.

f) Data Triangulation

It involves collective interpretation of the following three data elements. Triangulation may be of information on same data element from different data sources or of information on different data elements. Triangulation may be done in time or geographical plane.

1) Information on HIV and STIs in Different Population Groups (Epidemiological data)
2) Information on Vulnerabilities (Mapping &Behavioral data on Risk Groups, District Vulnerabilities)
3) Information on Programme Response (Programme data).

g) Importance of the Fact sheet

1) Each district fact sheet has two parts: **a narrative part consisting of background along with a map,** HIV epidemic profile and key recommendations, and a **tabular part consisting HIV levels and Trends,** PLHIV profile, block-level details, vulnerabilities and programme response. While the narrative part gives an overview of the district HIV/AIDS profile, the table provides detailed information about the HIV/AIDS scenario in the district.
2) 'Background' gives a brief overview of the district with respect to its geographic location, key demographic information like total population with male-female distribution, literacy status – based on 2011 Census. The section also describes the district characteristics or contextual factors that make it vulnerable to spread of HIV.
3) 'Epidemic profile' describes the thematic areas mentioned above (under the data sources) for each district based on available information.
4) From DLHS-III, percentages of ever married women aged (15-49 years who have heard of HIV/AIDS and RTI/STI have been taken as awareness indicators among women for HIV and RTI/STI respectively.
5) 'Key recommendations' is the final section of the factsheet where 'Triangulation' of data is attempted to highlight the key programme priorities for the district based on the HIV epidemic profile and programme gaps. Any future potential for spread of infection, if indicated by any information or results, is highlighted and appropriate action to address the situation is suggested.

On the basis of this analysis, recommendations for improving existing programme and the need for initiation of new programmes, etc. are highlighted. The recommendation section also highlights information gaps, if any.

2. Karimganj

2.1 Introduction/Background

Karimganj district is located in the southern tip of Assam a state north eastern corner of India. Cachar and Hailakandi are near district. Total area of the district is 1809 Sq. KMs.

According to the 2011 census Karimganjdistrict has a population of 1217002. Karimganj has sex ratio of 961 females for every 1000 males and literacy rate of 97.72 %. Muslims 527214 form a slight majority in the district, at 52.23% of the population.

2.2 HIV Epidemic Profile

- As per HSS ANC data, the level of HIV prevalence among ANC attendees has been consistently higher in the last two rounds of HSS.
- As per PPTCT data, a stable trend in HIV positivity is noted among ANC attendees during 2009 to 2013.
- The blood bank data shows a rising trend in HIV positivity during 2011 to 2013.
- The ICTC data in the district shows a declining trend in HIV positivity (%) since 2011.
- FSW (100%) is the main HRG group in the district. More than half of the FSW (55%) are street based.
- 2276 episodes of STI/RTI were treated in 2013 among which 0.48% were Genital Ulcer Disease cases.
- As per 2001 census, majority of the out-migration from the district happens to Mizoram and Nagaland.

2.3 Key Recommendations

- Profiling of the bridge population is needed in the district to understand the role of bridge population in the higher HIV prevalence among the ANC attendees.
- Improvement in the blood banking services including promotion of voluntary blood donation is needed as HIV positivity among the blood donors is showing a increasing trend.

HIV Levels and Trends

		2009	2010	2011	2012	2013
HSS-ANC	PP	0	0	0.50	0	0.25
	NT	NA	NA	400	NA	400
PPTCT	PP	0.23	0.07	0.14	0.1	0.06
	NT	1319	2677	6334	5844	6744
Blood Bank	PP	0	0	0	0.09	0.18
	NT	801	1024	1100	1113	1119
		2006	2007	2008		
HSS-HRG	PP	NA	NA	NA	NA	NA
	NT	NA	NA	NA	NA	Na
		2009	2010	2011	2012	2013
ICTC	PP	1.29	1.96	2.39	1.25	0.81
	NT	1084	1681	2299	2560	3456
STI						
No. of STI episodes		859	826	1861	2662	2276
Proportion(%) of GUD cases		1.16%	1.45%	1.34%	0.90%	0.48%
% Syphilis positivity		1.20%	0.12%	1.65%	0.82%	0%

PLHIV Profile						
	Total	% on ART	% 15-24	% Illiterate	% Female	
PLHIV	32	13	NA	NA	NA	
Route of transmission, ART data						
	Heterosexual	Homosexual	Blood transfusion	Needle syringe	Parent to child	Unknown
% of total (N=32)	94%	0%	0.8%	1.2%	3.2%	0.8%

HRG Size

	FSW	MSM	IDU
Size estimate (mapping data 2009)	467	0	0
% total HRG	100%	0	0
% Total population	0.03%	0	0
Programme coverage(2013)	600	0	0
Typology	Street based:55.08%,home based:38.53%, lodge based:6.38%	NA	NA

Male Migration, 2001 census			
	Inter-state	Intra-state	Intra-district
No. of Out-migration	6922	8550	4438
	Mizoram, Nagaland, Meghalaya	Cachar. Kamrup, Karbi-Anglong	

Programme Response							
	2007	2008	2009	2010	2011	2012	2013
ICTC	1	1	1	2	4	4	4
No. tested in ICTC	609	2575	1084	1681	2299	2560	3456
PPTCT	1	1	1	1	1	1	1
No. tested in PPTCT	123	682	1319	2677	6334	5844	6744
STI Clinics	1	1	1	1	1	1	1
ART center	NA	NA	NA	NA	NA	NA	NA
Link ART center	NA	NA	NA	1	1	1	1
FSW TIs	NA	NA	1	1	1	1	1
MSM TIs	0	0	0	0	0	0	0
IDU TIs	0	0	0	0	0	0	0
Composite TIs	0	0	0	0	0	0	0
Red Ribbon clubs	0	0	0	0	0	0	0
Blood Banks	1	1	1	1	1	1	1

3. Cachar

3.1 Introduction/Background

Cachar district lies in the southern side of Assam. It Shares its border with Hailakandi & Karimganj districts. As per 2011 census, the total population of the districts is 1,469,696 with the sex ratio of 945 females per 1000 males. The epidemic vulnerability include social and political unrest leading to migration, high deployment of defense personal, heavy traffic of long distance truckers and several halting points in the district as key train station connects Mizoram & Manipur, two high HIV prevalence states.

3.2 HIV Epidemic Profile

- HSS-ANC data 2013 shows that the level of HIV prevalence among the ANC attendees is moderate (0.50%). PPTCT data shows an increasing trend in HIV positivity among the pregnant women during 2009 to 2013.
- As per HSS HRG and HSS STD data, the level of HIV prevalence among the HRG and vulnerable populations is low in Cachar district. ICTC data shows a stable trend in HIV positivity during 2009-13.
- FSW (76.92%) is the predominant typology of HRG in the district.
- 2800 episodes of STI/RTI were treated during 2013. The syphilis positivity in the district is showing a declining trend.
- The ART data shows that 90.9% of HIV positivity is occurred due to sexual intercourse only where as it is 2.5% among the PPTCT client and 1.2% through blood transfusion.
- The migration data shows that maximum inter-state migration has occurred from neighbor state like Mizoram, Meghalaya & Nagaland by which the district has shared its state border.

3.3 Key Recommendations

- To create awareness on sex and sexual diseases as 90.9% HIV transmit through sexual intercourse only.
- Analysis of the profile of bridge population is essential as there is a increasing trend in HIV positivity among the ANC attendees.
- MSM, TI project can be run as there is a good number of MSM populations in the district.
- The number of Red Ribbon club must increase for voluntary blood donation as the district is sharing its medical facilities along with its neighbor states like Tripura, Mizoram and Manipur.

HIV LEVEL & TRENDS

		2009	2010	2011	2012	2013
HSS-ANC	PP			0%	-	0.5%
	NT			398		400
PPTCT	PP	0.32%	0.2%	0.19%	0.19%	0.17%
	NT	3785	7554	11510	12166	12614
Blood Bank	PP	0.08%	0.09%	0.17%	0.14%	0.07%
	NT	10759	13960	16911	17698	19554
		2006	2007	2008		
HSS-HRG	PP	-	0%	0.8%	-	-
	NT	-	250	221	-	-
HSS-STD	PP	2%	3.6%	2.4%	-	-
	NT	250	250	224	-	-
		2009	2010	2011	2012	2013
ICTC	PP	4.65%	3.75%	3.09%	3.46%	3.29%
	NT	3590	5870	9461	8936	9845
STI						
No. of STI episodes		996	696	1752	2256	2800
Proportion(%) of GUD cases		89	107	138	84	-
% Syphilis positivity		1.42%	0.83%	1.60%	1.27%	-

Typology	**Home based: 226, Brothel based: 67& Street based:884-**

Male Nagaon(2001 census)			
	Inter-state	Intra-state	Intra-district
No. of Out-migration	7356	5508	9663
Mizoram, Nagaland, Meghalaya.		N.C. Hills. Kamrup Hailakandi.	

Programme Response							
	2007	2008	2009	2010	2011	2012	2013
ICTC	1	2	3	3	3	3	3
No. tested in ICTC	843	6592	9312	5870	9461	8936	9845
PPTCT	1	1	1	1	1	1	1
No. tested in PPTCT		569	3785	7554	11510	12166	12614
STI Clinics	1	1	1	1	1	1	1
ART centre	1	1	1	1	1	1	1
Link ART centre	-	-	-	-	-	-	-
FSW TIs	1	2	2	2	2	2	2
MSM TIs	-	-	-	-	-	-	-
IDU TIs			1	1	1	1	1
Composite TIs	-	-	-	-	-	-	-
Red Ribbon clubs	-	-	-	-	-	-	-
Blood Banks	2	3	2	2	2	2	2

4. Golaghat District

4.1 Introduction/Background

Golaghat district is located in the northeastern part of Assam. The neighbor districts are KarbiAnglong and Jorhat. The border state is Nagaland in south east. As per 2011 census the total population of the district is 10, 66,888. The district consists three subdivisions namely Golaghat, Dhansiri and Bokakhat.Epidemic vulnerability is probably due to Golaghat being the transit point for trucker travelling to and fro from high HIV prevalence states of Nagaland and Manipur. Long distance truckers and several halting point increases the risk.

4.2 HIV Epidemic Profile

- Based on 2013 HSS-ANC data, the level of HIV positivity was low (0.00%) among the ANC clients.
- Based on 2013 data, the level of HIV positivity among the PPTCT (0.58%) and Blood Bank (0.6%) clients was low with a rising trend between 2011 to 2013.
- According to 2009 TI data, the percentage of MSM of total HRG was (33.78%), FSW 38.88% and IDU 26.57%. Among the FSW, 218 were Home Based and 197 Street Based.
- In 2013, HIV positivity among ICTC attendees was 0.42%, showing a declining trend in comparison to 1.31% in 2009.
- As per the 2001Census, 15762 populations was migrant population, of them 10557 are intra district migration.
- In 2013, 785 episodes of STI/RTI were treated. Among them, 12.86% were GUD cases.
- There were 3 numbers of ICTCs operational in the district since 2009.

4.3 Key Recommendation

- Analysis of the profile of PPTCT attendees is essential as an increasing trend is noted among the pregnant women since 2011.
- Increased IEC activities among the bridge populations like migrants and truckers.
- Mainstreaming of HIV services with major industries in the districts needs to be done.

HIV LEVEL & TRENDS

		2009	2010	2011	2012	2013
HSS-ANC	PP	NA	NA	0.00	NA	0.00
	NT	NA	NA	400	NA	400
PPTCT	PP	0.06	0.04	0.03	0.03	0.05
	NT	8689	10721	11352	12572	13652
Blood Bank	PP	0.05	0.02	0.01	0.06	0.06
	NT	5371	6877	7284	7744	8289
		2006	2007	2008		
HSS-HRG	PP	NA	NA	NA	NA	NA
	NT	NA	NA	NA	NA	NA
HSS-STD	PP	NA	NA	NA	NA	NA
	NT	250	250	247	NA	NA
		2009	2010	2011	2012	2013
ICTC	PP	1.31%	0.52%	0.73%	0.48%	0.42%
	NT	2124	4548	4058	5985	7442
STI						
No. of STI episodes		3220	1852	1130	825	785
Proportion(%) of GUD cases		7.91	9.44	16.28	22.06	12.86
% Syphilis positivity		0.00	0.00	0.00	0.00	0.00

PLHIV Profile						
	Total	% on ART	% 15-24	% Illiterate	% Female	
PLHIV						
Route of transmission, ART data						
	Heterosexual	Homosexual	Blood transfusion	Needle syringe	Parent to child	Unknown
% of total (N=)						

HRG Size		
FSW	MSM	IDU
518	450	354
38.88%	33.78%	26.57%
0.05%	0.04%	0.03%
400	400	300
Home Based: 218. Street Based: 197.	NA	NA

Male Migration, 2001 census		
Inter-state	Intra-state	Intra-district
15762	3660	10557
Top three states for inter-state migration : Nagaland. Arunachal Pradesh, Delhi.		Top three districts for intra-state migration: Jorhat, Kamrup, KarbiAnglong.

Programme Response							
	2007	2008	2009	2010	2011	2012	2013
ICTC	1	2	3	3	3	3	3
No. tested in ICTC			2124	4548	4058	5985	7442
PPTCT	1	1	1	1	1	1	1
No. tested in PPTCT			8689	10721	11352	12572	13652
STI Clinics		1	1	1	1	1	1
ART center			Nil	Nil	Nil	Nil	Nil
Link ART center			Nil	Nil	Nil	Nil	Nil
FSW TIs		1	1	1	1	1	1
MSM TIs		1	1	1	1	1	1
IDU TIs		1	1	1	1	1	1
Composite TIs			NA	NA	NA	NA	NA
Red Ribbon clubs			NA	NA	NA	NA	NA
Blood Banks	2	2	2	2	2	2	2

5. Hailakandi

5.1 Introduction/Background

Hailakandi district is situated at the southern most corner of Assam. Hailakandi district, declared as the 24th districts of Assam. Total population in the district is 659,260 as per 2011 census. Total geographical area of the district is 1327 Sq. KM of which 10.53 Sq. KM falls in urban areas and 1316.47 Sq.Km. Village. District vulnerabilities include proximity to high HIV prevalence states.

5.2 Epidemic Profile

- As per HSS ANC 2013, the level of HIV prevalence among ANC attendees was moderate (0.50%). Trend analysis couldn't be done due to insufficient data.
- As per ICTC data, a increasing trend in HIV positivity (%) is noted in the district between 2011 to 2013.
- FSW (100%) is predominant HRG typology in the district. Majority of them are home based (69.02%).
- 851 episodes of STI/RTI were treated in 2013. Among them 0.24% were GUD cases.
- Among the PLHIV, major route of transmission is the heterosexual route (91%).
- As per 2001 census, major districts for intra-state migration are Cachar, Kamrup and Karbi Anglong.

5.3 Key Recommendations

- Profile of the bridge population is essential in view of the moderate level of HIV prevalence of ANC attendees.
- Saturation coverage of the bridge populations in the district through proper district level planning.

HIV Levels and Trends

		2009	2010	2011	2012	2013
HSS ANC	PP	0	0	0	0	0.50
	NT	NA	NA	399	NA	400
PPTCT	PP	0	0	0	0	0.50%
	NT	998	1580	2977	3562	5261
Blood Bank	PP	0	0	0	0	0
	NT	54	76	96	77	53
		2006	2007	2008		
HSS HRG	PP	NA	NA	NA	NA	NA
	NT	NA	NA	NA	NA	Na
		2009	2010	2011	2012	2013
ICTC	PP	0.36	0.16	0.01	0.06	0.09
	NT	1108	1894	2986	3396	4622
STI episodes		166	1775	2052	2023	851
GUD (%)		0.00	0.45	1.36	0.98	0.24
Syphilis positivity (%)		0.00	0.56	1.42	0.00	0.00

PLHIV Profile

	Total	% on ART	% 15-24	% Illiterate	% Female
PLHIV	42	26	NA	NA	NA

Route of transmission, ART data

	Heterosexual	Homosexual	Blood transfusion	Needle syringe	Parent to child	Unknown
% of total (N=42)	91%	0%	0%	1.2%	4.8%	3%

HRG Size

	FSW	MSM	IDU
Size estimate (mapping data 2009)	467	0	0
% total HRG	100%	0	0
% Total population	0.07%	0	0
Programme coverage(2013)	460	0	0
Typology	Home based:69.02%	NA	NA
	Street based: 25.54% Lodge based: 5.25%		

Male Migration, 2001 census

	Inter-state	Intra-state	Intra-district
No. of Out-migration	742	6012	4378
Nagaland, Mizoram, Meghalaya		Cachar. Kamrup, Karbi-Anglong	

Programme Response							
	2007	2008	2009	2010	2011	2012	2013
ICTC	1	1	1	1	1	2	2
No. tested in ICTC	NA	NA	1108	1894	2986	3396	4622
PPTCT	1	1	1	1	1	1	1
No. tested in PPTCT	NA	NA	998	1580	2977	3562	5261
STI Clinics	0	0	1	1	1	1	1
ART center	NA	NA		NA	NA	NA	NA
Link ART center	NA	NA	NA	NA	NA	NA	NA
FSW TIs	NA	NA	1	1	1	1	1
MSM TIs	0	0	0	0	0	0	0
IDU TIs	0	0	0	0	0	0	0
Composite TIs	0	0	0	0	0	0	0
Red Ribbon clubs	0	0	0	0	0	0	0
Blood Banks	1	1	1	1	1	1	1

6. Kamrup (Metro)

6.1 Introduction /Background

Kamrup (metro) is the gateway of the North Eastern States and educational & business hub in the region. The main highways that pass through Kamrup (M) and it connect to the nearest states as Nagaland, Manipur, Arunachal Pradesh, Tripura and Mizoram. The famous Maa Kamakhya Temple is situated at Nilachal Hill in the Guwahati city.

In 2011, Kamrup Metropolitan had population of 12.53 lakhs of which male and female were 6.47 lakhs and female 6.06 lakhs. The density of Kamrup Metropolitan district for 2011 is 1,313 people per sq. km and it administers 955 square kilometers of areas. Average literacy rate were 88.71 (male 92.13% and female 85.07%. With regards to Sex Ratio in Kamrup Metropolitan, it stood at 936 female per 1000 male.

6.2 HIV Epidemic Profile:

- Based on 2013 HSS-ANC data, the level of HIV positivity was low among the ANC clients.
- In 2013, the level of HIV positivity was low among the PPTCT (0.15%) and Blood Bank (0.12%) clients, with a stable trend in comparison to the last 4 years.
- In 2013, the level of HIV positivity was low among ICTC attendees (2.47%) with a stable trend in comparison to the last 4 years.
- As per mapping conducted in the year 2009 MSM (809; 49% of total HRG) was the largest HRG in the district, followed by FSW (635; 38% of total HRG) and IDU (208; 13%).
- In 2013, 1906 episodes of STI/RTI were treated and the syphilis positivity rate among STI clinic attendees was 1.39%.
- In 2013, according to the HRG typology 94.42% FSW is street based which is higher among FSW and 50.47% MSM is Double Decker which is higher among MSM.
- As per the 2001 Census, 1.06% of the population was out migration.
- The top three destinations for out-of-state migration were Delhi, West Bengal & Meghalaya.
- In 2013, of the 1023 PLHIV initiated on Anti-Retroviral Therapy (ART), 12.7% were 15-24 years of age, 15.35 % were illiterate and 35.58% were female.

6.3 Key Recommendations:

- Focused on awareness programmes among migrant labors and bridge population (as the migration data shows).
- At present there is no TI NGO for truckers so those bridge populations is not covered in the district

HIV LEVEL & TRENDS

		2009	2010	2011	2012	2013
HSS-ANC	PP	NA	NA	0	NA	0.75
	NT	NA	NA	400	NA	400
PPTCT	PP	0.13	0.07	0.15	0.14	0.15
	NT	13607	19053	18696	19836	20926
Blood Bank	PP	0.08	0.09	0.14	0.1	0.12
	NT	48966	53043	59157	60581	58585
		2006	2007	2008		
HSS-HRG	PP	0.87	1.29	2.10		
	NT	578	620	618		
HSS-STD	PP	1.82	1.75	3.6		
	NT	165	171	250		
		2009	2010	2011	2012	2013
ICTC	PP	3.22	2.29	2.58	2.67	2.47
	NT	7479	14698	14186	13863	15614
STI						
No. of STI episodes		1875	1676	3302	3230	1906
Proportion(%) of GUD cases		21.5	12.11	6.23	3.06	7.34
% Syphilis positivity		4.26	1.57	1.1	0.66	1.39

PLHIV Profile						
	Total	% on ART	% 15-24	% Illiterate	% Female	
PLHIV	1023	71.16	12.7	15.35	35.58	

Route of transmission, ART data						
	Heterosexual	Homosexual	Blood transfusion	Needle syringe	Parent to child	Unkn own
% of total (N=)	79.96	2.24	2.44	3.81	1.56	9.99

HRG SIZE

	FSW	MSM	IDU
Size estimate (mapping data 2009)	635	809	208
% total HRG	38%	49%	13%
% Total population	0.5%	0.6%	0.02%
Programme coverage(2013)	1240	800	680
HRG Typology (2013)	FSW Avg. Client attend Per Week: 13nos. Street Based : 94.42% Home Based : 5.57%	MSM Kothi : 34.09% Panthi : 15.44% Double-decker : 50.47%	

Male Migration, 2001 census			
	Inter-state	Intra-state	Intra-district
No. of Out-migration	13431	10197	37614
Top three states for inter-state migration : Delhi, West Bengal & Meghalaya		Top three districts for intra-state migration: N.C. Hills, Nagaon&Goalpara	

Programme Response							
	2007	2008	2009	2010	2011	2012	2013
ICTC	7	7	7	7	7	12	12
No. tested in ICTC	4901	8662	7479	14698	14186	13863	15614
PPTCT	1	1	1	1	1	1	1
No. tested in PPTCT	5153	8955	13607	19053	18696	19836	20926
STI Clinics	NA	NA	1	1	1	3	3
ART center	1	1	1	1	1	1	1
Link ART center	NA	NA	NA	1	1	1	1
FSW TIs	NA	1	1	1	1	1	1
MSM TIs	NA	1	1	1	1	1	1
IDU TIs	NA	1	1	1	1	1	1
Composite TIs	NA	NA	NA	NA	NA	NA	NA
Red Ribbon clubs	NA	NA	NA	NA	31	31	31
Blood Banks	NA	15	14	14		40	40

7. Kamrup (Rural)

7.1 Introduction/Background

In 2011, Kamrup had population of 15.17 lakhs of which male 7.78 Lakhs and female 7.39 lakhs. The initial provisional data released by census India 2011, shows that density of Kamrup district for 2011 is 489 people per sq. km. and it administers 3,105 square kilometers of areas. Average literacy rate of Kamrup in 2011 were 75.55%, out of which male 81.30% and female literacy were 69.47%. The Sex Ratio is 949 females per 1000 male.

The district includes high deployment of labours, industrial workers in the Amingaon area and there is migration of people from neighboring Garo Hills (Meghalaya). There is deployment of army, BSF personal in Azara, Changsari and Rangia.

7.2 HIV Epidemic Profile

- Based on 2013 HSS-ANC data, the level of HIV positivity was low among the ANC clients.
- In 2013, the level of HIV positivity was low among the PPTCT (0.15%) and Blood Bank (0.12%) clients, with a stable trend.
- In 2013, HIV positivity was low among ICTC attendees (2.47%) with a stable trend.
- In 2013, 563 episodes of STI/RTI were treated and the syphilis positivity rates among STI.
- As per the 2001 Census, 1.06% of the population was inter-state out migration.
- The top three destinations for out migration were Delhi, Wes Bengal & Meghalaya.
- In 2013, 268 PLHIV registered at ART Centre, out of that 67.91% initiated on ART, 13.80% were 15-24 years of age, 11.19 % were illiterate and 36.94% were female.

7.3 Key Recommendations

- Focused on awareness programmes to come out the hidden unknown PLHA (because the data of out migration is high).
- Scale up the MSM TI project in the district (ART data shows there are MSM HRG also in the district).
- At present there is no TI NGO for truckers so that bridge population is not covered in the disteict.

HIV LEVEL & TRENDS

		2009	2010	2011	2012	2013
HSS-ANC	PP	NA	NA	0%	NA	0%
	NT	NA	NA	391	NA	397
PPTCT	PP	0.05%	0.04%	0.03%	0%	0.01 %
	NT	6052	9668	14503	17763	14952
Blood Bank	PP	NA	NA	NA	NA	NA
	NT	NA	NA	NA	NA	NA
HSS-HRG	PP	NA	NA	NA	NA	NA
	NT	NA	NA	NA	NA	NA
HSS-STD	PP	NA	NA	NA	NA	NA
	NT	NA	NA	NA	NA	NA
ICTC	PP	0.13%	0.22%	0.11%	0.05%	0.19 %
	NT	2245	6422	6212	5570	6741
STI						
No. of STI episodes		45	47	436	696	563
Proportion(%) of GUD cases		0%	0%	1.37%	0.43%	0.35 %
% Syphilis positivity		0%	0%	0.58%	0.23%	0%

PLHIV Profile

	Total	% on ART	% 15-24	% Illiterate	% Female	
PLHIV	268	67.91%	13.80%	11.19%	36.94%	

Route of transmission, ART data

	Heterosexual	Homosexual	Blood transfusion	Needle syringe	Parent to child	Unknown
% of total (N=)	80.97%	1.87%	1.11%	0.75%	1.49%	13.81

HRG SIZE

	FSW	MSM	IDU
Size estimate (mapping data 2009)	NA	NA	NA
% total HRG	NA	NA	NA
% Total population	NA	NA	NA
Programme coverage(2013)	400	NA	NA
HRG Typology	**FSW** **Avg. Client attends Per Week: 13nos.** **Street Based : 59%** **Home Based : 37.84%** **Brothel Based : 3.16%**		

Male Migration, 2001 census

	Inter-state	Intra-state	Intra-district
No. of Out-migration	13431	10197	37614
Top three states for inter-state migration : Delhi, West Bengal & Meghalaya		**Top three districts for intra-state migration:** N.C. Hills, Nagaon&Goalpara	

Programme Response							
	2007	2008	2009	2010	2011	2012	2013
ICTC	NA	NA	11	18	18	18	18
No. tested in ICTC	NA	NA					
PPTCT	NA	NA	NA	NA	NA	NA	NA
No. tested in PPTCT	NA	NA	NA	NA	NA	NA	NA
STI Clinics	NA	NA	NA	1	1	1	1
ART center	NA	NA	NA	NA	NA	NA	NA
Link ART center	NA	NA	NA	NA	NA	NA	NA
FSW TIs	NA	NA	NA	0	1	1	1
MSM TIs	NA	NA	NA	NA	NA	NA	NA
IDU TIs	NA	NA	NA	NA	NA	NA	NA
Composite TIs	NA	NA	NA	1	1	1	1
Red Ribbon clubs	NA	NA	NA	NA	NA	NA	NA
Blood Banks	NA	NA	NA	NA	NA	NA	NA

8. Summary and Conclusion

In 6 no. of districts were especially selected for frequent association of HRG & HIV infection rate in all age groups, which may less number of sentinel sites service delivery points. All positive persons were hailing from rural areas. Majority of PLHA were in 25-50 age groups, married and literate upto primary level.

According to mode of transmission category, majority had hetero sexual route of transmission.

Amongst STI attendee's majority having urethral discharge amongst men and genital ulcer amongst females according to symptomatic approach.

Gradually there is improvement of service delivery points and needs to expand it further.

PPTCT coverage is showing steady increase number of client availing both counseling services. PPTCT coverage among pregnant for pre and post test counseling and HIV testing along with distribution of Navirapine for prevention of parent to child transmission showing improving coverage over years.

HIV-TB cross referral showing improving trend. HIV-TB co-infection was detected amongst few parents. Number of STI infection treated showing improving trend. Voluntary blood donation is at a steady level is at a steady level and replacement blood units tested is showing improving in quality and numbers.

Take home message:

1) Improving the coverage of FSW with preventive interventions by Targeted Intervention may be taken as high priority for the benefit of the district.
2) Saturation of FSW & IDU with prevention services in the all six rural blocks and two towns along with more focused attention for rapidly growing urban slums likely to yield greater importance in this regards.
3) Focus among FSW TI may be on hard-to-reach, sub-groups of home based and street based FSW, especially in urban slums. However. Information of the partner volumes and other risk characteristic of FSW collected by TI should guide such focus.
4) In view of the presence of truck halt points and considerable movement of truckers through the district and since separate trucker interventions may not be feasible to be implemented, FSW TIs should strengthen its outreach activities around all the major truck halt points in the district and around the highways.
5) Baseline studies to assess the needle sharing practices among IDUs need to be conducted to address it through strong Needle-Syringe Exchange Programme to prevent possible HIV epidemics among them in future.
6) Presence of ICTCs in the districts should be capitalized through focused IEC strategies for demand generation for counseling, testing and PPTCT services. This may be important in order to mobilize more and more clients of sex workers, who are otherwise difficult to reach, to visit the ICTCs and access the services for prevention, care, support and treatment.
7) As lot of migrant workers working in different tea gardens and development of newer projects of OIL, Natural Gas, and Army Cantonment areas are increasing there is immediate need to do mapping of risk amongst these population.

Eventually, 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%.

Review

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ACRONYMS

1) NACO National AIDS Control Organization
2) NACP National AIDS Control Programme
3) ASACS Assam State AIDS Control Society
4) DAPCU District AIDS Prevention and Control Unit

5) HSS HIV Sentinel Surveillance
6) ICTC Integrated Counseling and Testing Center
7) VCTC Voluntary Counseling and Testing Center
8) PPTCT Preventing of Parent-to-child transmission
9) PLHIV People Living With HIV/AIDS
10) ART Anti-Retroviral Therapy
11) STI Sexually transmitted infections
12) RTI Reproductive Tract infections
13) GUD Genital Ulcer Disease
14) FSW Female Sex Worker
15) MSM Men having sex with Men
16) IDU Injecting Drug User
17) TI Targeted Intervention .