Research Article

Use of Technology in Segregating Occupational Risks of Migrant and linking them with Services: Experiences from National AIDS Control Program for Migrants

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Abstract

Background: The migrant intervention in India was initiated during the National AIDS Control Program (NACP) Phase-2 (2002-2007). Even by the end of NACP Phase-3 (2010-11); the service uptake among migrants remained very low (14% referred for HIV testing, of which only 37% were tested). USAID PHFI-PIPPSE project in collaboration with the National AIDS Control Organization (NACO) developed a unique system called Migrant Service Delivery System (MSDS) to capture migrants profile with respect to their risk profile and to provide tailor made services to them.

Description: MSDS is a web-based system, designed and implemented to increase service uptake among migrants through evidence based planning. 110 destination migrants Targeted Intervention (TI) from 11 states were selected for study with varied target populations in terms of occupations; to understand occupation related risk behaviors amongst the migrants. Occupation wise registration data of high risk vulnerable migrants were analyzed through MSDS for the period April 2014-June 2016. Analysis was made on specific indicators amongst these occupational groups to understand the risk behavior and their vulnerability to HIV and STI.

Lessons Learned: Out of total migrants workers enrolled in MSDS HIV rate is found to be highest amongst Auto-Rickshaw (18.66%) followed by daily wage laborers (14.46%), loom workers (10.73%), industrial workers (10.04%) and construction workers (7.93%). With 45.14% positivity, industrial workers are found to be most vulnerable to Sexually Transmitted Infections (STIs) amongst all occupational categories followed by loom workers (16.28%), skilled worker (Furniture, Jeweler)(7.14%), daily wage laborers (5.45%) .

Conclusion/Next Steps: MSDS is an effective tool to assess migrants' risk and their vulnerability to HIV for designing evidence informed program. This system calls for a replication across all destination TIs by NACO for differential strategies for different occupation groups to ensure better yield through scientific planning of intervention among high risk and high vulnerable migrants.

Keywords: Migrants, Migrant Service Delivery System (MSDS), Occupational group, Risk, Vulnerability

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Introduction

The National AIDS Control Programme (NACP) in its second phase (1999-2007) established TIs and during this phase migrants were reached through composite interventions (core and non-core interventions together).

Significant milestones for the migrant programme were achieved during the third phase of NACP (2007-12). Exclusive TIs were introduced for migrant populations, operational definitions for high risk migrants were developed taking into account occupation, the risk exposure and behaviors. In-migration was mapped in over 22 states and HIV Sentinel Surveillance (HSS) sites were increased from 5 to 25 (2010-11). The strategy to reach migrants was revised during this phase and the salient features of the revised strategy included-evidence based planning to identify potential sites at source and destination, focus on source districts along corridors, expansion of target group to include, potential, returned and spouse of migrants, and introduction of reporting through the Strategic Information Management Systems (SIMS). The number of TIs reaching migrants was increased from 152 migrant to 244 during NACP III and the coverage of migrants increased from 1 million to 3.5 million against an estimate of 7.3 million high risk migrants.[+]

However, while the coverage of female sex workers (FSWs) and injecting drug users (IDUs) was approximately 80%, the coverage for migrants was only 40%. The access to the services for migrants was also lower in comparison to Most at Risk Population. Only 13.7% and 14.9% migrants were referred to Integrated Counselling and Testing Centres (ICTCs) out of which 38.3% and 37.2% were tested for HIV in April-September 2010 and October 2010-March 2011, respectively. Condom distribution against the estimated demand was merely 4.6% for migrants.[++]

Other gaps observed in implementation of migrant programmes include-inadequate saturation of population in source destination and transit sites; absence of linkages between source, transit and destination; inadequate utilization of evidence; absence of comprehensive programmes for source.[+++]

Currently, migrants at destination sites are reached through TIs and the Employer Led Model (ELM) whereas source sites are catered to through the Link Worker Scheme and through intensive health camps

Many of the challenges observed are found to be connected to the inadequate linkages between source, transit and destination, as well as insufficient use of the evidence generated by the programme. The Revised Migrant Strategy for Targeted Interventions-NACP IV attempts to address these gaps and provides a set of guiding principles for Migrant interventions as well as identifies programme priorities. As per the revised migrant strategy of NACO, focus has been given to the corridors of migration and interventions are planned to cover migrants both at 'Destination' as well as in 'Source' to ensure continuum of care and services.

Based on the vulnerability of migrant population and evidences of migration, three migration corridors are identified as Ganjam in Orissa to Surat in Gujarat, from northern Bihar to Delhi & Haryana and Eastern UP to Thane in Maharashtra. At the destination, interventions aimed to cover migrants working in various settings including textiles, mining, iron, alumna, cement factories, small and medium enterprises, laborers spread out across the city, agricultural laborer and others who are at risk.[++++]

[+]Migrant Strategy for Targeted Interventions – NACP IV, National AIDS Control Organization, Government of India.
[++]TI Performance Report, National AIDS Control Organization, 2010-11.
[+++]Migrant Strategy for Targeted Interventions – NACP IV, National AIDS Control Organization, Government of India.
[++++]Policy, Strategy and Operational plan, HIV Intervention for Migrants,2010,NACO, Ministry of Health & Family Welfare, Govt of India, p 48.

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As on September 2015, 298 destination interventions were implemented in 30 states in India.[+]

To strengthen monitoring and bring efficiency in HIV/AIDS Prevention and Control Programme, NACO has been piloting the use of technology at different levels. For instance, NACO through its partner IL&FS ETS mobile SMS technology has been piloted for reporting by outreach workers for pregnant women where in around 2000 outreach workers were reporting through the mobile based system.[++] Similarly, considering the volume of migrants covered through the targeted intervention at destination, track their mobility for effective planning of services while their return to source, use of technology was also conceived.

USAID PHFI-PIPPSE project in collaboration with the National AIDS Control Organization (NACO) developed a unique system called Migrant Service Delivery System (MSDS) to capture migrants profile with respect to their risk profile and to provide tailor made services to them. MSDS is basically a web-based system, designed and implemented to increase service uptake among migrants through evidence based planning. The targeted intervention projects implemented by NGOs and supported by NACO/SACS captures the information of migrants while providing services through outreach like counselling, STI diagnosis and treatment, counselling, linking them with HIV testing facilities and ART centres as activities under the targeted intervention programme. The services thus provided to the migrants through TIs are captured in the MSDS at the TI level.

A team of experts comprising Information Technology, technical experts for migration programme form PIPPSE and NACO/SACS and interdisciplinary researchers were involved in design, development, and also implementation of MSDS to enhance the utility and functionality of the system.

Description

According to the Strategic Framework of the National Migrant Programme while at the destination sites there are direct Targeted Interventions where a TI project is responsible for the destination site and is staffed and budgeted for as per NACO guidelines. The key staff members of the intervention are the Project Manager, Auxiliary Nurse Midwife (ANM)/Counsellor, Monitoring & Evaluation Officer, Accountant, Outreach Workers (ORW), Peer Leaders (PL), and a part-time Doctor.

The TI at the destination is responsible for registering the migrants, profiling them based on their risks and vulnerabilities, preparing a database on their movement pattern, and providing outreach and other services as required to migrants.

The ORWs with the support of PLs are responsible for identifying the migrants and reaching out to them at the field level. It is during outreach that they capture basic information to reflect the profile of the migrants in an already existing format called the 'Master Register'. This basic information is now to be put in MSDS as 'registration'. The Counsellor seeks details on risk profile and risk assessment that completes the registration process. The detailed process of registration and details of the 'Master Register' are provided in later sections.

The Programme Manager in a migrant TI is responsible for the overall programme planning and implementation and the Monitoring and Evaluation (M&E) Officer is responsible for compilation of reports and submission to SIMS/ Computerized Information Management Systems (CMIS). The introduction of MSDS can lead to simplification in the planning and implementation process followed at the TI level. The M&E Officer's task becomes key in this as she/he has to engage with the MSDS directly-feeding information, undertaking checks, providing the field team alerts and action points provided by the system.

Overall, the migrant programme at the destination is aimed to deliver a package of services to the target group-prevention services [information, condoms, care of Sexually Transmitted Infections (STI)], treatment and care services [People Living with HIV (PLHIV) health care, psycho-social support], and services to build an enabling environment (advocacy and linkages, social welfare and security, linkage for legal services). MSDS helps the TIs at destination to not only provide these services but track the utilization of the services by the migrants, and also generate alerts and action points for the TI team to work upon.

MSDS was piloted in two corridors as part of the Source Destination Linked Corridor Programming. The pilot experience clearly demonstrates that MSDS adds significant value in the planning, implementation and monitoring of the programme.

[+]National AIDS Control Organization (2015-16): Annual Report, PP. 342
[++]Annual Report (2013-14): National AIDS Control Organisation, Govt of India, P 58.

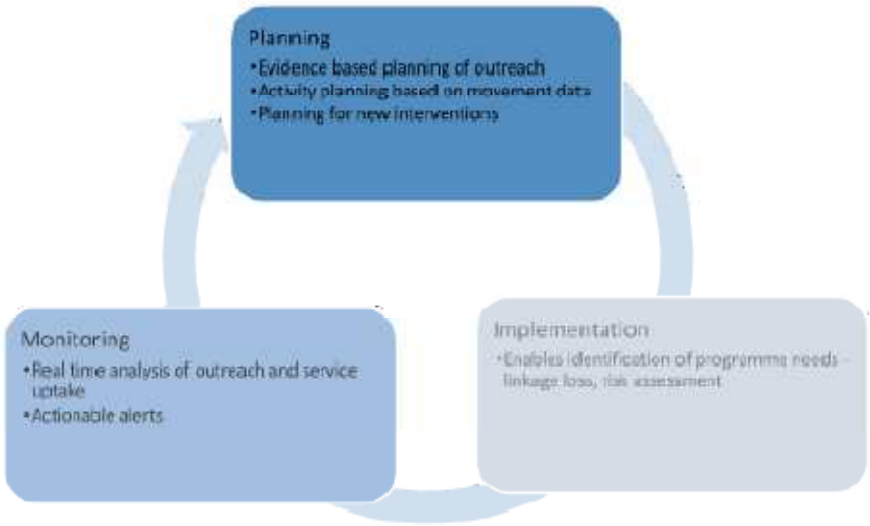

Figure 1.Planning, Implementation and Monitoring through MEDS

As depicted in Figure 1, MSDS can be used in multiple ways to enhance service delivery across source and destination sites. However this paper will delve into the utility of MSDS in planning and monitoring of services under targeted intervention at destination sites.

Migrants in destination sites are tracked vis-à-vis through their risk and socio demographic profiles through robust process of registration which is explained below:

Who is registered?

Registration at the destination sites is done of migrants who have accessed services (DIC, clinic, counselling) or those who have been contacted by the PLs/ORWs during outreach or through the network contacts.

How does registration take place?

At destination, information for registration is captured using the 'Master Register' format that is filled by the ORW with the support of the PL. Before filling up the format the ORW has to confirm that the migrant has not been registered in any other destination intervention in the same area. There are 52 sets of information in the 'Master Register' format.

While collecting the above basic information from the migrants and initiating registration, the ORWs/PLs motivate the migrants to avail TI services like condom demo/re-demo, condom distribution, counselling, STI referral, STI treated, STI follow-up etc as well as services linked with TIs like ICTC and Antiretroviral Therapy (ART) services.

At destination, once a service is availed, and registration is done details of individual migrants are fed into the MSDS along with the risk profile and risk assessment conducted during the time of registration by TI counselor or outreach worker.

Once individual records of migrants get uploaded in MSDS; it provides snapshot of migrants registered segregated across occupation; risks profiles, source states etc as depicted in the below scheme (Figure 2):

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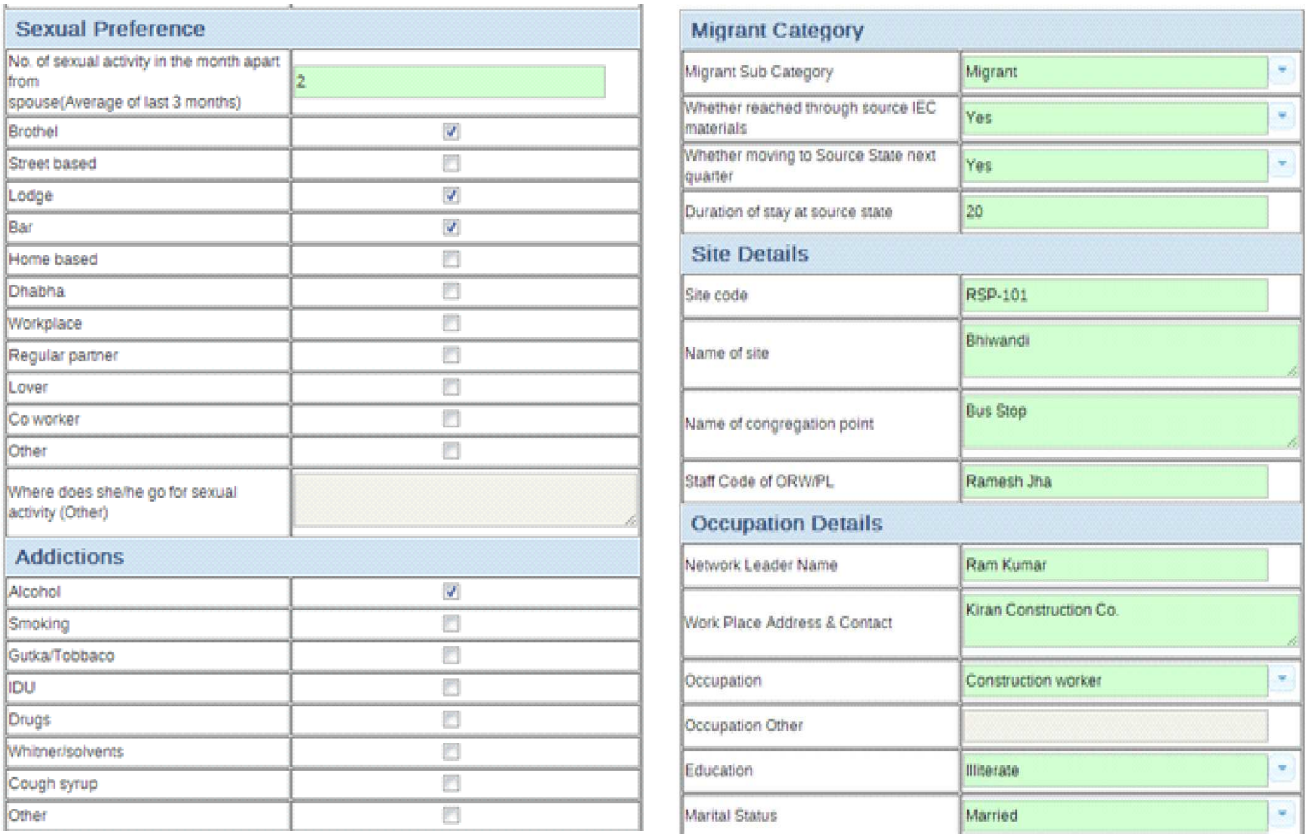

Sexual Preference	
No. of sexual activity in the month apart from spouse(Average of last 3 months)	2
Brothel	☑
Street based	☐
Lodge	☑
Bar	☑
Home based	☐
Dhabha	☐
Workplace	☐
Regular partner	☐
Lover	☐
Co worker	☐
Other	☐
Where does she/he go for sexual activity (Other)	
Addictions	
Alcohol	☑
Smoking	☐
Gutka/Tobbaco	☐
IDU	☐
Drugs	☐
Whitner/solvents	☐
Cough syrup	☐
Other	☐

Migrant Category	
Migrant Sub Category	Migrant
Whether reached through source IEC materials	Yes
Whether moving to Source State next quarter	Yes
Duration of stay at source state	20
Site Details	
Site code	RSP-101
Name of site	Bhiwandi
Name of congregation point	Bus Stop
Staff Code of ORW/PL	Ramesh Jha
Occupation Details	
Network Leader Name	Ram Kumar
Work Place Address & Contact	Kiran Construction Co.
Occupation	Construction worker
Occupation Other	
Education	Illiterate
Marital Status	Married

Figure 2.Snapshots on risk and occupational profile of migrants registered at TI

In this paper attempts have been made to assess how far MSDS has helped program functionaries to segregate risk profile of migrants to ensure tailor made service provisioning.

Fort the purpose of study, the migrants' data entered in 110 destinations Targeted Intervention (TI) from 11 states were selected. The data are further segregated and analyzed (through pivot table in the compiled excel sheet) with respect to the migrants with different occupations, services availed like HIV testing, STI treatment for the period from April 2014-June 2016. Analysis was made on specific indicators amongst these occupational groups to understand the risk behavior and their vulnerability to HIV and STI.

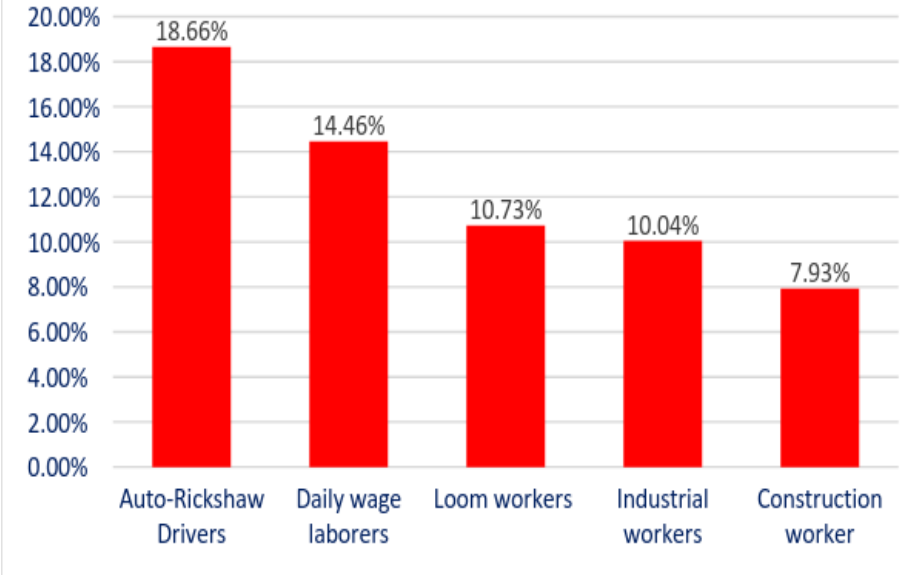

Figure 3.Distribution (%) of major occupational profile of migrants detected with HIV during the period from Apr 2014 to June 2016

The graphs placed at figure 3, below showed that among different occupational profile of migrants, the highest HIV positive cases found among auto rickshaw drivers as 18.66% followed by daily wage laborers (14.46%), loom workers (10.73%), and industrial workers (10.04%), construction workers as 7.93% and so on.

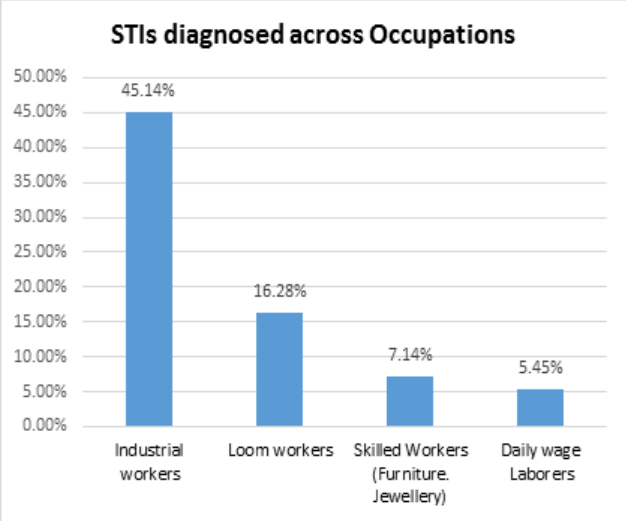

Figure 4.STI diagnosed across different migrants occupational groups

The National AIDS Control Organization (NACO) estimated that 12% of females and 6% of males attend Primary Health Centres for complaints related to STIs and that the prevalence of STIs among sexually active adults is about 5-6%.[+] Abdulkader *et al* (2015) reported in their study on male migrant factory workers in Haryana that prevalence of self-reported STIs among migrant men were high and they suffer from a significant burden untreated STIs. In another study done among migrant workers in Surat and reviewed by Abdulkader et al reported that there was a prevalence of 10% for any STI among the migrant laborers.[++]

In the present study shown in the graph at (figure 4), out of the total STI cases reported, industrial workers are reported to have 45% total STIs cases , followed by loom workers (16.28%), skilled workers (Furniture, Jeweler)-(7.14%) and daily wage laborers (5.45%). Here the prevalence of STI among different occupational profile of migrants is not mentioned.

Limitation of Study

The programme data collected through MSDS was analyzed based on complete reliance on the collected by ORWs in the field and entered by TI M&E Officers vis-à-vis data quality. Cross validation of data between that entered and uploaded by TI M&E officers in MSDS and the physical records maintained by the TI with respect to the HIV positive cases detected and STI diagnosed are not made due to lack of scope for physical verification. Further, the STIs reported in the TIs are the cases diagnosed by the physician during health camps organized by the TIs and no laboratory confirmation tests for STI were reported through MSDS.

Conclusion/Next Steps

MSDS is an effective tool to assess migrants' risk and their vulnerability to HIV for designing evidence informed TI program. This system calls for a replication across all destination TIs by NACO for differential strategies for different occupation groups to ensure better yield through scientific planning of intervention among high risk and high vulnerable migrants.

Conflict of Interest: Nil

References

1. Migrant Strategy for Targeted Interventions – NACP IV, National AIDS Control Organization, Government of India.
2. TI Performance Report, National AIDS Control Organization, 2010-11.
3. Migrant Strategy for Targeted Interventions – NACP IV, National AIDS Control Organization, Government of India.

[+]National AIDS Control Organization. Ministry of Health and Family Welfare. Government of India. Operational Guidelines for Programme Managers and Service Providers for Strengthening STI/RTI Services. New Delhi: National AIDS Control Organisation; 2011. p. 9.

[++]Abdulkader RS et al(2015).Prevalence and Determinants of Sexually Transmitted Infections(STI0s among Male Migrant Factory Workers in Haryana, North India, Indian Journal of Public Health, Volume 59, Jan-March2015, Retrieved from http://www.ijph.in

4. Policy, Strategy and Operational Plan, HIV Intervention for Migrants, 2010, NACO, Ministry of Health & Family Welfare, Govt of India, p 48.
5. Annual Report (2015-16): National AIDS Control Organization, p 342.
6. Annual Report (2013-14): National AIDS Control Organisation, Govt of India, p 58.
7. National AIDS Control Organization. Ministry of Health and Family Welfare, Government of India. Operational.
8. Guidelines for Programme Managers and Service Providers for Strengthening STI/RTI Services. New Delhi: National AIDS Control Organization; 2011. p 9.
9. Abdulkader RS et al (2015). Prevalence and Determinants of Sexually Transmitted Infections (STI0s among Male Migrant Factory Workers in Haryana, North India, Indian Journal of Public Health, Volume 59, Jan-March 2015, Retrieved from: http://www.ijph.in).
10. Migration in India (January-June 1993) NSS 49th Round National Sample Survey Organization, Department of Statistics, Government of India October, 1998.
11. Internal Migration in India Initiative National Workshop on Internal Migration and Human Development in India 6–7 December 2011, (2011) Indian Council of Social Science Research (ICSSR), New Delhi, India.

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