HIV High-Priority districts were defined, in National AIDS Control Plan (NACP) Phase III, based on the HIV prevalence in Antenatal Care Clinics (ANCs). The District AIDS Prevention Control Units (DAPCUs) were then established in these High-Priority districts of India in order to institutionalise local planning and management for HIV related activities. The prioritisation of the districts has not changed since then while the dynamics of the HIV epidemic has shifted and infection rates in sub-populations have varied. It was recommended in 2016 to identify new approaches to prioritise HIV High-Priority districts.

A multidimensional framework was developed to build indicators, which could better represent the epidemic and therefore, could be useful to re-examine the classification of High Priority districts in Maharashtra.

The multidimensional framework and the new indicators were helpful in re-categorising the districts. It allowed a dynamic, state specific approach, which can be modified based on local specificities; the multidimensional framework and its indicators could be applied every two years to re-classify High Priority districts in each and every state of India, as the HIV epidemic evolves and is brought under control.

EXECUTIVE SUMMARY

THE ISSUE

The DAPCUs were established in High Priority districts of India based on the HIV prevalence in ANC. DAPCUs were to institutionalise local planning and management for HIV related activities. The HIV district prioritisation strategy has been static over the past decade in India. However, in Maharashtra, during the last decade, the HIV prevalence has declined from 0.66% in 2007 to 0.33% in 2017 (Figure 1) and the infection rates in different sub-populations have been variable. (Figure 2)
One of the key recommendations from the NACP-IV mid-term review (2016) was to develop new strategies for geo-prioritisation of the HIV response, based on a more granular and refined identification of HIV high burden districts, using new information, such as place of origin of new HIV infections and new risks and vulnerabilities, to capture the changing dynamics of HIV epidemic in the state.

Realising the importance of re-examining the indicators for classification of HIV high burden districts, a multidimensional framework was developed to categorise the districts in Maharashtra.

**Figure 2:**
Infection rates in different sub-populations

**THE METHODOLOGY**

- Programmatic and administrative data were used to develop the indicators
- The framework included the following five dimensions characterising the epidemic:
  1. Current burden of infection based on the HIV positivity at antenatal and general clients’ clinics.
  2. Drivers of the epidemic based on the levels of Sexually Transmitted Infections (STI).
  3. Presence of Key Population (KP), Female Sex Worker (FSW), Men Who have Sex with Men (MSM) and migrants, for example.
  4. Trends of the HIV epidemic over a five-year period for each KP.
  5. Programme coverage such as outreach coverage for KP, (MSM and FSW were considered in Maharashtra) and treatment coverage for People living with HIV (PLHIV). Adequate coverage was defined as 90% or more coverage, over a five-year period.
- Six Indicators were developed for the categorisation of districts based on the HIV epidemic burden and response
  1. ANC HIV positivity: Prevention of Parent To Child Transmission (PPTCT) positivity data from 2017-18
  2. HIV positivity in Integrated Counselling and Testing Centres (ICTC): ICTC positivity data from 2017-18
  3. Proportion of STI: Total number of STI cases detected in 2017-18 on the total 15-49-year-old population (Census 2011)
  4. Proportion of migrants: Total of male migrants on the total 15-49-year-old population (Census 2011)
  5. Proportion of KP: Total number of KP, (FSW, MSM, and Transgender -Hijra (TGH) reached in 2017-18 on the total 15-49-year-old population (Census 2011)
  6. Proportion of ART population: Total individuals registered in ART in 2017-18 on the total population (Census 2011)
- Tertiles for each indicator were generated; the districts were given an ordered score based on the tertile for each indicator (one for low, two for moderate, and three for high).
- A cumulative score was calculated for each district based on these six indicators; these cumulative scores were also classified into tertiles.
- All the indicators were equally weighted.
- Four categories of HIV priority districts were defined:
High Priority: Increasing HIV epidemic with inadequate coverage

Moderate Priority I: Increasing HIV epidemic with adequate coverage

Moderate Priority II: Decreasing/Stable HIV epidemic with inadequate coverage

Low Priority: Decreasing HIV epidemic with adequate coverage

ANC Positivity
Key populations
Proportion of STIs
Proportion of Outmigrants
HIV positive proportion
ICTC positivity

Trends of the FWS epidemic over 5 years
Adequate FSW Coverage over 5 years

Trends of the MSM epidemic over 5 years
Adequate MSM Coverage over 5 years

Three districts were identified as HIV High Priority: Pune, Thane, and Latur

RESULTS

- Based on the six indicators:
  - Nine districts in Maharashtra were categorised as High Priority districts
  - Thirteen as Moderate Priority districts, and
  - Eleven were classified as Low Priority
- Congruous districts in western Maharashtra (high proportion of KPs and vulnerable groups), and Vidharbha region (major intersection/trade hub in the central part of the country)
- For FSW Interventions:
  - Three districts were identified as HIV High Priority: Pune, Solapur and Yavatmal
  - Seven districts had an increasing epidemic with adequate coverage (Moderate Priority I)
- Four districts had stable/reducing epidemic with inadequate coverage (Moderate Priority II)
- Three districts could not be classified due to lack of data
- For MSM Interventions:
  - Three districts were identified as HIV High Priority: Pune, Thane, and Latur
  - Four districts were reported stable or decreasing prevalence with inadequate coverage (Moderate Priority II)
- Pune was a priority district both for MSM and FSW interventions
- Final Categorisation:
  - Fourteen districts were classified as High Priority based on HIV epidemic, FSW and MSM interventions (Figure 3)
  - Originally 34 districts were classified as High Priority
The multidimensional framework is helpful to re-categorise the districts
- It is a dynamic framework
- It is a state specific approach
- The indicators included in the framework may be modified based on the state-specificities. For example, Injecting Drug Users (IDU) could be included and MSM excluded (if required)
- The categorisation may be applied every two years to reclassify the districts in each state, as the HIV epidemic evolves and is brought under control.

### Triangulation
- In all the districts classified as Low Priority, the ANC prevalence from HSS data showed a decreasing or stable HIV prevalence over the last five-year period.
- The proportion of increasing ANC HIV positivity was highest in the High Priority districts compared to Moderate or Low Priority districts.

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