India has the third largest HIV epidemic in the world. In 2016, HIV prevalence in India was an estimated 0.3%.1 This figure is small compared to most other middle-income countries but because of India’s huge population (1.324 billion) this equates to 2.1 million people living with HIV.2 In the same year, an estimated 62,000 people died from AIDS-related illnesses.3

Overall, India’s HIV epidemic is slowing down, with a 32% decline in new HIV infections (80,000 in 2016), and a 54% decline in AIDS-related deaths between 2007 and 2015.4 5

The HIV epidemic in India is driven by heterosexual sex, which accounted for 87% of new infections in 2015. However, the epidemic is concentrated among key affected populations such as sex workers. The

KEY POINTS:

• Due to its large population size, India has the third largest HIV epidemic in the world.

• India’s epidemic is concentrated among key affected populations including sex workers and men who have sex with men.

• Compared to neighbouring countries, India has made good progress in reducing new HIV infections by a half since 2001.

• Despite the availability of free antiretroviral treatment, uptake remains low as many individuals face difficulty in accessing clinics.

Explore this page to read more about populations most affected by HIV, testing and counselling programmes, antiretroviral treatment, HIV stigma and discrimination, funding the HIV response and the future of HIV and AIDS in India.

India has the third largest HIV epidemic in the}

HIV and AIDS in India

<table>
<thead>
<tr>
<th>Key Points</th>
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<tr>
<td>India (2016)</td>
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<tr>
<td>2.1 million people living with HIV</td>
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<tr>
<td>0.3% adult HIV prevalence</td>
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<tr>
<td>80,000 new HIV infections</td>
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<tr>
<td>62,000 AIDS-related deaths</td>
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<tr>
<td>50% adults on antiretroviral treatment</td>
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<td>33% children on antiretroviral treatment</td>
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Source: UNAIDS Data 2017

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vulnerabilities that drive the epidemic are different in different parts of the country. The three states with the highest HIV prevalence (Manipur, Mizoram, Nagaland) are in the east of the country. Some states in the north and northeast of the country have also reported rising HIV prevalence.

Key affected populations in India

Among key affected populations, sex workers and men who have sex with men have experienced a recent decline in HIV prevalence. Prevalence among people who inject drugs was previously stable but has been rising in recent years.

Transgender people are also emerging as a group at high risk of HIV transmission, despite all four of these groups being prioritised in the Indian national AIDS response since its inception in 1992.

Sex workers and HIV

In 2016, an estimated 2.2% of female sex workers in India were living with HIV, although this figure varies between states. For example, one 2013 study cited HIV prevalence among sex workers in Maharashtra at 17.9%, Manipur at 13.1%, Andhra Pradesh at 9.7% and Karnataka at 5.3%.

Although sex work is not strictly illegal in India, associated activities such as running a brothel are. This means authorities can justify police hostility and brothel raids. Stigma and discrimination against sex workers restrict their access to healthcare. A 2011 study in Andhra Pradesh indicated a significant association between police abuse and increased risk of HIV transmission and inconsistent condom use.

Sex workers are one of the high-risk groups targeted by India’s National AIDS Control Organization (NACO) with peer-to-peer HIV interventions (when individuals from key affected populations provide services to their peers or link them to services within healthcare settings). In 2015, NACO reported reaching 77.4% of sex workers with HIV prevention activities of this kind.

Case study: Sex worker communities in India

Since 1992, SANGRAM has worked to unite sex workers and provide access to HIV treatment, prevention and education across six districts in Maharashtra and the border areas of north Karnataka. These are all places in which the rate of HIV infection is significantly higher than other areas of the country.

Despite recent funding issues, the organisation has achieved notable successes with these diverse communities. Peer educators deliver hundreds of thousands of condoms to women each month, and they report that in some areas 100% of sex workers have attended voluntary HIV testing.

Male sex workers are particularly vulnerable to HIV. A study of men who have sex with men
(sometimes referred to as MSM) who attended STI clinics at Mumbai and Hyderabad, two large cities in India, found that 70% of them engaged in sex work. Of those who engaged in sex work, HIV prevalence was found to be 43.6%, compared to 18.1% among all men who have sex with men attending the clinics.\footnote{17}

**Men who have sex with men (MSM) and HIV**

Around 4.3% of men who have sex with men in India are living with HIV, with just over a third aware of their status.\footnote{18}

A 2015 study of men who have sex with men, conducted across 12 Indian cities, found that 7% tested positive for HIV. Just under a third (30%) of those who reported having anal or oral sex with a man in the past 12 months were married to a women and engaging in heterosexual sex.\footnote{19} The study also found evidence of emerging epidemics among men who have sex with men in urban areas not previously recognised as having high HIV burdens.

The legal status of same-sex conduct in India has fluctuated in recent years. In December 2013, India’s Supreme Court re-criminalised adult consensual same-sex sexual conduct, after the Delhi High Court had decriminalised it in 2009. This raised fears about access to HIV prevention and treatment for men who have sex with men.\footnote{20} \footnote{21} However, in February 2016, India’s Supreme Court announced a review of the 2013 decision.\footnote{22}

**Hijras/transgender people and HIV**

Hijras (also known as Aravani, Aruvani or Jagappa in other areas) is the name given to people in South Asia who are transgender. NACO estimates HIV prevalence among this group to be 7.2%.\footnote{23} The traditional background of hijras is linked to high-risk behaviours such as alcohol and substance abuse, and low literacy rates.\footnote{24}

In April 2014, the Indian Supreme Court recognised transgender people as a distinct gender.\footnote{25} Since then, health and welfare programmes to meet this group’s specific needs have been set up.\footnote{26} Evidence of improved access to HIV services is emerging, with NACO reporting 240,000 hijras reached with HIV prevention and treatment services in 2015, compared to 180,000 the previous year.\footnote{27}

**People who inject drugs (PWID) and HIV**

The number of people who inject drugs (sometimes referred to as PWID) living with HIV in India is rising. The prevalence rate remained steady at around 7% between 2007 and 2013, but was estimated at 9.9% in 2015.\footnote{28}

Injecting drug use is the major route of HIV transmission in India’s north-eastern states. HIV prevention efforts in the north-east have been effective in reducing the number of new infections.\footnote{29} However, there is evidence that the number of people who inject drugs is growing.\footnote{30}

The same study found HIV prevalence to be three times higher for women who inject drugs than men who do so.\footnote{31}

HIV prevention activities for people who inject drugs in India include needle and syringe exchanges and opioid substitution therapy (OST), with the former intervention more common. NACO reports the number of clean needles and syringes distributed as 16.5 million as of September 2015, a figure that is rising year on year.\footnote{32}

OST was incorporated into the harm reduction programme in 2008. As of 2014, there were around
150 OST centres supporting nearly 18,000 people who inject drugs. Plans to increase the number of OST centres has been slow and coverage as of 2016 remains low, with only 213 OST centres nationwide. 33

**Migrant workers and HIV**

Research worldwide has linked migration to increases in HIV transmission. There are an estimated 7.2 million migrant workers in India, of whom 0.19% are living with HIV - much higher than the national prevalence of 0.26%.34

NACO categorises migrants as a ‘bridge population’, as they form a link between urban and rural areas, and between groups that are at high and low-risk of HIV transmission.35 HIV testing among this group remains low, standing at 11.32% in 2016.36

Despite being an important driver of the HIV epidemic in India, data on migrant sexual behaviour is limited. In 2014, UNAIDS reported that 75% of women testing positive in India have a husband who is a migrant labourer.37 Moreover, 0.9% of people who have migrated from a rural to an urban area are HIV-positive.38

A 2011 study on migrants and HIV by UNDP, NACO and the Population Council found higher levels of HIV among migrants than the general population in certain areas. For example, in northern Bihar migrant men were eight times more likely to have HIV than non-migrant men. It also found male and female migrants to be engaged in high levels of extra-marital sex and low condom use.39

**Truck drivers and HIV**

A number of studies from India have reported high vulnerability of truckers to HIV transmission. NACO estimates that 2.59% of the two million truckers in India are living with HIV.40

NACO also categorises truck drivers as a bridge population because truck drivers often have unprotected sex with high-risk groups such as female sex workers as well as their regular sexual partners, which increases the risk of transmitting HIV into the general population.

A 2012 study found 47% of truckers reported paying for sex, of whom only 40% had used a condom. Of those surveyed, 47% were unaware that HIV could be transmitted through heterosexual sex.41

NACO reports lower HIV testing rates among truck drivers than other higher risk groups.42

**HIV testing and counselling (HTC) in India**

In 1997, there were just 67 HIV testing and counselling (HTC) sites in India. By August 2016, there were more than 20,000 facilities offering HTC.43 Between April and September 2015, when NACO last reported data, 6.85 million general users accessed HTC, suggesting India is on course to meet its annual testing target of 12.4 million. A total of 5.32 million pregnant women received HTC over the same period against a yearly target of 9 million.44 Despite this progress, around one quarter of people living with HIV in India (23%) are unaware of their status.45

**HIV prevention in India**

NACO is the body responsible for formulating policy and implementing programmes for the prevention and control of the HIV epidemic in India.
The most recent programme, NACP-IV (2012-2017), aims to reduce annual new HIV infections by 50% through the provision of comprehensive HIV treatment, education, care and support for the general population and build on targeted interventions for key affected groups and those at high risk of HIV transmission.46

Targeted interventions for key affected groups

A key component of the NACP-IV is the prevention of new HIV infections by reaching 80% of key affected groups with targeted interventions.47

Targeted interventions are implemented on the premise that prevention of HIV transmission among key affected groups will also lower HIV transmission among the general population. For example, targeting interventions towards female sex workers and their male clients will help reduce the risk of clients transmitting HIV to their regular sexual partners.

The most recent targeted interventions are listed below:48

**Sustaining the HIV Prevention Impact among Key Populations in the State of Andhra Pradesh, Telangana, Karnataka, Maharashtra and Tamil Nadu**

This five-year project began in 2014 and targets female sex workers through 87 community based organisations across five southern states.

**Project Sunrise**

Responsible for the expansion of HIV interventions in north eastern states with a focus on key affected populations, particularly people who inject drugs. The project began in 2016 with the central goal of getting 90% of people who use drugs who are living with HIV from this area on treatment by 2020. It will also look to build the capacity of state-level institutions to respond to the needs of people who inject drugs and other key affected populations in order to prevent HIV and expand treatment. Other interventions include working with the spouses of people who inject drugs.49
**Project NIRANTAR**

This three-year project began in 2014 and focuses on building the capacity of civil society organisations working with key affected populations in the states of Chhattisgarh, Madhya Pradesh and Odisha. Its main aim is to improve access to HIV prevention, care and treatment services, including social protection schemes, in an enabling environment.

**Migrant Interventions at Source and Transit**

This project targets both working migrants and domestic migrants who have returned home. Returnee migrants and their spouses are reached in villages and at places of transit such as bus or train stations. Working migrants are targeted through the industries that employ them, with more than 200 contracts signed with various industrial employers. The intervention is expected to reach more than 5.6 million migrants.

**HIV education and awareness**

Increasing awareness among the general population and key affected groups about HIV prevention is a central focus of India’s current National Control Programme (NACP IV), which is being implemented between 2012 and 2017. Behaviour change and generating demand for condoms and other prevention commodities are key focuses.

**Link Worker Scheme**

The Link Worker Scheme works in 163 districts across 18 states to address the complex needs of rural HIV prevention, care and support. It involves highly motivated and trained community members, responsible for establishing links between the community on one hand and information, commodities and services on the other. In 2015, the scheme reached 1.06 million migrants and 972,000 people from other vulnerable groups.

**The Condom Social Marketing Programme (CSMP)**

The Condom Social Marketing Programme (CSMP) aims to promote safer sex. A key focus of the programme is making condoms readily available in rural and remote areas and in high-risk places such as truck stops. In 2015, the CSMP distributed more than 2.83 million condoms. In the same year it launched a new condom promotion campaign on Doordarshan (India’s public broadcasting service), leading cable and satellite channels, All India Radio and private radio in Hindi and other regional languages. The campaign aimed to encourage audiences to adopt safe sex practices by using a condom every time they had sex.

**Preventing mother-to-child transmission (PMTCT)**

The Indian government is committed to eliminating new HIV infections among children. India’s Prevention of Parent to Child Transmission (PPTCT) programme started in 2002. To date, there are more than 18,000 sites offering PPTCT services. Based on 2013 WHO Guidelines, the programme aims to initiate antiretroviral treatment for all pregnant and breastfeeding women living with HIV regardless of CD4 count or stage of HIV infection.

However, in 2015, only 38% of pregnant women living with HIV received PMTCT treatment.

**Antiretroviral treatment (ART) in India**

Free antiretroviral treatment (ART) has been available in India since 2004. At ART clinics, people living with HIV can access HTC, nutritional advice and treatment for HIV and opportunistic
infections. Patients are required to take a CD4 count test every six months. In 2016, 50% of adults eligible for ART received treatment, rising from 36% in 2013. Despite the rise, the number of people on ART remains low. Many people living with HIV have difficulty accessing the clinics, emphasising the importance of initiatives such as the Link Workers Scheme.

The introduction of the new 2013 WHO treatment guidelines has made many more people eligible for ART, forcing treatment access to be a priority area. NACP-IV aims to make second-line ART free, although a shortage of both first-line and second-line ART has become more commonplace in recent years.

**HIV stigma and discrimination in India**

The NACP-IV has made the elimination of stigma and discrimination a major focus. In early 2014, an HIV/AIDS Bill was finally passed after being submitted in 2006. This prohibits discrimination in employment, education, healthcare, travel and insurance. Moreover, it recognises that a person living with HIV has the right to privacy and confidentiality about their HIV status.

However, people living with HIV and AIDS in India continue to experience high levels of discrimination in a variety of settings including households, the community and workplaces.

Stigma and discrimination are also very common within the healthcare sector. A 2013 study of doctors, nurses and ward staff in government and non-government clinics in Mumbai and Bengaluru found discriminatory attitudes were common. This included a willingness to prohibit women living with HIV from having children (55 to 80%), endorsement of mandatory testing for female sex workers (94 to 97%) and surgery patients (90 to 99%), and stating that people who acquired HIV through sex or drugs “got what they deserved” (50 to 83%).

The study recommended further intervention programmes targeting healthcare providers to address fear of transmission, improve universal precaution skills, and involve people living with HIV at all stages of the intervention to reduce symbolic stigma and ensure that relevant patient interaction skills are taught.

**Funding the HIV response in India**

Before 2012, efforts to tackle the HIV epidemic in India relied heavily on international funding. However, in 2012 India committed to financing 90% of its HIV and AIDS programmes.

The NACP-IV budget falls short of this, as only 80% is funded domestically. However, this still represents a major increase from previous strategies, when international donors supported approximately 75% of overall costs.

The vast majority of the NACP-IV budget (68%) is allocated to HIV prevention, with 31% going to treatment, care and support.

In recent years, India’s domestic funding for its HIV response has decreased, falling by 22% between 2014/15 and 2015/16, equivalent to $US 948 million.

**The future of HIV and AIDS in India**

Over the past decade, India has made significant progress in tackling its HIV epidemic, especially in comparison with other countries in the region. For example, while new HIV infections in India have fallen by more than half since 2001, the number of new HIV cases in neighbouring Pakistan...
A major reason for the country's success has been the sustained commitment of the Indian government through its National AIDS Control Programme, which has been particularly effective at targeting high-risk groups such as men who have sex with men, sex workers and people who inject drugs.

While antiretroviral treatment is free, uptake remains low and requires a dramatic scaling up, especially in the wake of the new 2013 WHO treatment guidelines. Moreover, stigma and discrimination remains a significant barrier preventing key affected groups and those at high risk of HIV transmission from accessing vital healthcare services.

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