The health sector has been playing a pivotal role in the national response to HIV of Member States of the South-East Asia Region of WHO. Member States have enormous opportunities, in the context of universal health coverage, to further scale up their responses to HIV with innovative service delivery models, including decentralization of HIV testing and treatment services, and integration of HIV services with maternal, newborn and child health services and tuberculosis control programmes. This report highlights the achievements, factors contributing to the successes and underlines the challenges to sustaining effective responses at the country level.
Health sector response to HIV in the South-East Asia Region, 2013
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### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS</td>
<td>acquired immune deficiency syndrome</td>
</tr>
<tr>
<td>AMR</td>
<td>antimicrobial resistance</td>
</tr>
<tr>
<td>ANC</td>
<td>antenatal care/clinic</td>
</tr>
<tr>
<td>ART</td>
<td>antiretroviral therapy</td>
</tr>
<tr>
<td>ARV</td>
<td>antiretroviral</td>
</tr>
<tr>
<td>BSS</td>
<td>behaviour surveillance survey</td>
</tr>
<tr>
<td>CHC</td>
<td>community health centre</td>
</tr>
<tr>
<td>CS</td>
<td>congenital syphilis</td>
</tr>
<tr>
<td>DBS</td>
<td>dried blood spot</td>
</tr>
<tr>
<td>DR</td>
<td>(HIV) drug resistance</td>
</tr>
<tr>
<td>EID</td>
<td>early infant diagnosis</td>
</tr>
<tr>
<td>EWI</td>
<td>early warning indicator</td>
</tr>
<tr>
<td>FDC</td>
<td>fixed-dose combination</td>
</tr>
<tr>
<td>FSW</td>
<td>female sex worker</td>
</tr>
<tr>
<td>GARPR</td>
<td>Global AIDS Response Progress Reporting</td>
</tr>
<tr>
<td>HIV</td>
<td>human immunodeficiency virus</td>
</tr>
<tr>
<td>HTC</td>
<td>HIV testing and counselling</td>
</tr>
<tr>
<td>IBBS</td>
<td>integrated biological and behavioural survey</td>
</tr>
<tr>
<td>IPT</td>
<td>isoniazid preventive therapy</td>
</tr>
<tr>
<td>MCH</td>
<td>maternal and child health</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goal</td>
</tr>
<tr>
<td>MMT</td>
<td>methadone maintenance therapy</td>
</tr>
<tr>
<td>Acronym</td>
<td>Definition</td>
</tr>
<tr>
<td>---------</td>
<td>------------</td>
</tr>
<tr>
<td>MNCH</td>
<td>maternal, newborn and child health</td>
</tr>
<tr>
<td>MSM</td>
<td>men who have sex with men</td>
</tr>
<tr>
<td>NACO</td>
<td>National AIDS Control Organization (India)</td>
</tr>
<tr>
<td>NGO</td>
<td>nongovernmental organization</td>
</tr>
<tr>
<td>NRHM</td>
<td>National Rural Health Mission (India)</td>
</tr>
<tr>
<td>OST</td>
<td>opioid substitution therapy</td>
</tr>
<tr>
<td>PCR</td>
<td>polymerase chain reaction</td>
</tr>
<tr>
<td>PLHIV</td>
<td>people living with HIV</td>
</tr>
<tr>
<td>PMTCT</td>
<td>prevention of mother-to-child transmission (of HIV)</td>
</tr>
<tr>
<td>POC</td>
<td>point-of-care (testing)</td>
</tr>
<tr>
<td>PWID</td>
<td>people who inject drugs</td>
</tr>
<tr>
<td>RTI</td>
<td>reproductive tract infection</td>
</tr>
<tr>
<td>STI</td>
<td>sexually transmitted infection</td>
</tr>
<tr>
<td>TB</td>
<td>tuberculosis</td>
</tr>
<tr>
<td>TG</td>
<td>transgender person</td>
</tr>
<tr>
<td>UNAIDS</td>
<td>Joint United Nations Programme on HIV/AIDS</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>VDRL</td>
<td>Venereal Disease Research Laboratory (test for syphilis)</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
</tbody>
</table>
The HIV epidemic remains a serious global public health concern. A large number of preventable new HIV infections occur each year and millions of people die prematurely of AIDS. In 2013, an estimated 35 million people were living with HIV in the world and an estimated 1.5 million people died of AIDS.

**Situation of the HIV epidemic in the World Health Organization (WHO) South-East Asia Region**

- In 2013, an estimated 3.4 million people were living with HIV/AIDS, of which women accounted for 37%.
- The HIV epidemic is reducing in magnitude with the estimated number of new infections declining by 34% over a decade (from 350,000 in 2001 to 230,000 in 2013). An estimated 190,000 people died of AIDS in 2013.
- The HIV burden among Member States of WHO’s South-East Asia Region is as follows:
  - India, Indonesia, Myanmar, Nepal and Thailand account for more than 99% of HIV infections.
  - No case of HIV has been reported from the Democratic People’s Republic of Korea.
  - Bangladesh, Bhutan, Maldives, Sri Lanka and Timor-Leste together represent less than 1% of all HIV infections in the Region.
- The overall HIV prevalence among the adult population was low (0.3%) in the Region in 2013. Thailand was the only country that displayed a prevalence of over 1%. However, there are geographical variations in prevalence between and within countries.
- The estimated number of annual new infections is showing a downward trend in India, Myanmar, Nepal and Thailand. In Indonesia, however, the HIV epidemic is still on the rise.
• The majority of HIV infections are transmitted sexually. Injecting drug use is the second most common mode of HIV transmission.

• HIV is concentrated primarily in certain key populations, which are at a higher risk for acquiring HIV. These populations include sex workers and their clients, men who have sex with men, transgender populations and people who inject drugs.

• The overall HIV prevalence is declining among female sex workers. There is, however, evidence of continuing high transmission among people who inject drugs, men who have sex with men and transgender people.

• The prevalence of sexually transmitted infections is high, particularly among key populations.

• In 2012, the estimated incidence of HIV-positive TB cases was 170,000 (9.2 per 100,000 population) in the South-East Asia Region, although the incidence varied widely among countries.

Health sector response to the HIV epidemic

• Among female sex workers, condom use during their last sexual encounter and consistent condom use is reaching a high level in some countries. However, men who have sex with men, transgender persons and people who inject drugs have low rates of condom use.

• Coverage with a comprehensive package of HIV interventions for people who inject drugs, including needle–syringe programmes and opioid substitution therapy, continues to be low. Bangladesh is the only country in the Region which has reached the global standard of 200 needles per year distributed to every person who injects drugs.

The overall coverage reached by HIV prevention programmes is slightly below the universal access target of 80% for all key population groups. India came close to attaining an 80% coverage of the prevention programme targeted at female sex workers, men who have sex with men and people who inject drugs in 2013. Nepal and Myanmar are following suit.

• In 2013, over 10 million people received HIV testing across the Region.
The number of facilities offering such services has doubled since 2009. However, access to testing and counselling for key populations remains low.

- Only 25% of pregnant women had access to HIV testing and counselling in 2013. Of the estimated number of HIV-infected pregnant women giving birth, only 26% received antiretrovirals to prevent mother-to-child transmission of HIV.

- A dual initiative for elimination of mother-to-child transmission of HIV and syphilis was launched in 2011. The goal was to eliminate congenital syphilis and new paediatric infections by 2015. In 2012–2013, the reported coverage of treatment for syphilis among pregnant women who were tested was more than 80% in India, Myanmar, Sri Lanka and Thailand.

- Approximately 1,130,000 people living with HIV were receiving antiretroviral treatment in 2013. This covers 33% (range 27–29%) of the estimated number of people living with HIV in the Region. The 12-month retention of those receiving treatment ranged from 79% in Sri Lanka to 93% in Bangladesh.

- Member States with dual epidemics of HIV/TB have made substantial progress in implementing collaborative activities. However, detection of HIV/TB-coinfected patients remains low.

- Resistance to ciprofloxacin (an antimicrobial to treat gonorrhoea) is very high, ranging from 76% in Thailand to 87% in Bangladesh. The use of ciprofloxacin to treat gonorrhoea is no longer recommended in the national guidelines of most countries.

- Substantial progress has been made in expanding surveillance systems, leading to a better understanding of national HIV epidemics. There is scope to improve routine programme monitoring systems to improve the quality and outcome of HIV services.

- Data on HIV drug resistance is limited and should be collected and updated. Several countries are planning to conduct surveys, and collect and analyse early warning indicators of HIV drug resistance according to the 2012 WHO HIV drug resistance surveillance strategy and updated protocols.
Three decades ago, HIV was first detected in the South-East Asia Region. Ever since, Member States in the World Health Organization (WHO) South-East Asia Region have made significant achievements towards the prevention and control of HIV. Overall, in 2013, there were 35 million (33.2–37.2 million) people living with HIV (PLHIV) globally, of which 3.4 million (2.9–4 million) were in the Region, with an estimated adult prevalence of 0.3%. Over the past decade, the estimated number of new infections has decreased by almost 34%. \(^1\) The epidemic, however, is heterogeneous in terms of levels and trends, and in the cultural and contextual factors driving it. These vary among and within Member States.

The HIV epidemic in the South-East Asia Region is primarily concentrated within certain high-risk population groups. These are female sex workers (FSW), men who have sex with men (MSM), people who inject drugs (PWID) and transgender persons (TG). Prevention and control services for HIV and sexually transmitted infections (STIs) among these groups, and the ability to ensure an enabling environment to promote access to these services for them, are crucial programmatic interventions for all Member States of the Region.

The health sector has played a pivotal role in the national response to the HIV epidemic, aided by strong political commitment. This has helped to prevent new HIV infections among those at risk, provide care and treatment to those exposed and infected, and mount coordinated intersectoral responses.

This report summarizes the present state of the epidemic and describes the achievements made by the Member States in HIV prevention, care and treatment.

The first section describes the epidemiology of HIV in the South-East Asia Region, highlighting the levels and trends of HIV in various geographical areas and population groups. The second section presents the achievements
of the health sector’s response under the following subsections: HIV prevention efforts among key populations; prevention of STIs; HIV testing and counselling; prevention of mother-to-child transmission (PMTCT) and antiretroviral treatment (ART) for PLHIV.

The report also highlights factors that have contributed to achievements at the country level and underlines the foreseeable challenges for sustaining an effective response in the near future. Innovative models for decentralization of HIV testing and treatment services, coupled with a more comprehensive integration of health services in the fields of reproductive health, tuberculosis (TB) and HIV, would be essential to achieve a substantial impact on the fight against HIV.

To attain Millennium Development Goal (MDG)-6, i.e. universal access to HIV treatment and the elimination of childhood HIV infections, Member States will have to identify and address their specific national/regional challenges. The section on strategic information provides the status of different monitoring and evaluation components, and highlights areas in need of operations research. Best practices from Member States are listed therein as well.

This report is based primarily on data reported by Member States for the Global AIDS Response Progress Reporting (GARPR), 2014, and the global HIV estimates by UNAIDS and WHO.1,2 Data drawn from these sources are not referenced throughout the report. In addition, information has been drawn from country HIV sentinel surveillance reports; presentations made by representatives from Member States at WHO regional meetings; the AIDS Data Hub for Asia–Pacific and published peer-reviewed literature.

References


2. UNAIDS, WHO. Global HIV estimates. 2014
People living with HIV/AIDS: with an estimated 35 million (33.2–37.2 million) PLHIV globally, the HIV epidemic continues to pose serious challenges.\textsuperscript{1} At the end of 2013, an estimated 3.4 million (2.9–4.0 million) people (adults and children) were living with HIV in the South-East Asia Region. The number of PLHIV was rising in the 1990s, but has remained stable at around 3.4 million since 2001. Women aged 15+ years accounted for nearly 37\% of the total number (Figure 1).

**Figure 1:** Estimated number of people and women living with HIV in countries of the South-East Asia Region

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The magnitude of the infection varied significantly, with India, Indonesia, Myanmar, Nepal and Thailand accounting for more than 99% of the HIV burden in the Region (Figure 2).

**Figure 2: Five countries account for the major burden of the number of people living with HIV in the South-East Asia Region, 2013**

No case of HIV has been reported from the Democratic People’s Republic of Korea. Bangladesh, Bhutan, Maldives, Sri Lanka and Timor-Leste together represent less than 1% of all HIV infections.

**Estimated adult HIV prevalence:** although the HIV prevalence in the Region has continued to remain at a low level of 0.3% (0.3–0.4%), it varies between Member States (Table 1).

Except for Thailand, where the HIV prevalence is still above 1%, all other Member States recorded a prevalence of less than 1% in adults (15–49 years). A declining trend was observed in India, Myanmar, Nepal and Thailand. Compared to 2001, the estimated adult HIV prevalence for Indonesia showed an increase (Figure 3).
**Table 1: HIV burden in countries of the South-East Asia Region, 2013**

<table>
<thead>
<tr>
<th>Country</th>
<th>Estimated number of people living with HIV (all ages) 2013</th>
<th>Estimated adult (15–49 years) HIV prevalence (%) 2013</th>
<th>Estimated number of new HIV infections (all ages) 2013</th>
<th>Estimated number of AIDS-related deaths (all ages) 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>9500</td>
<td>&lt;0.1</td>
<td>...</td>
<td>1 300</td>
</tr>
<tr>
<td>Bhutan</td>
<td>&lt;1 000</td>
<td>0.1</td>
<td>NA</td>
<td>&lt;100</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>India</td>
<td>2 100 000</td>
<td>0.3</td>
<td>260 000</td>
<td>130 000</td>
</tr>
<tr>
<td>Indonesia</td>
<td>640 000</td>
<td>0.5</td>
<td>28 000</td>
<td>80 000</td>
</tr>
<tr>
<td>Maldives</td>
<td>&lt;100</td>
<td>&lt;0.1</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Myanmar</td>
<td>190 000</td>
<td>0.6</td>
<td>25 000</td>
<td>6 700</td>
</tr>
<tr>
<td>Nepal</td>
<td>39 000</td>
<td>0.2</td>
<td>7 800</td>
<td>1 300</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>2 900</td>
<td>&lt;0.1</td>
<td>&lt;200</td>
<td>&lt;500</td>
</tr>
<tr>
<td>Thailand</td>
<td>440 000</td>
<td>1.1</td>
<td>24 000</td>
<td>8 200</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>


**Figure 3: Trends in adult HIV prevalence in five countries of the South-East Asia Region, 2001–2013**

During the period 2001 to 2013, the annual number of new infections fell by 50% to 83% in India, Myanmar, Nepal and Thailand. However, the estimated number of new infections in Indonesia showed a sharp increase of 186% during the same time period (Figure 5).
The overall decrease in new HIV infections in the Region reflects a reduction in HIV transmission due to concerted efforts by Member States to prevent infection among key populations coupled with scaling up of care and treatment services for those infected. However, an increase in the estimated number of new infections in Indonesia underscores the importance of intensifying prevention and treatment efforts.

**Estimated AIDS-related deaths:** globally, the number of AIDS-related deaths is declining, with 1.5 (1.4–1.7) million AIDS deaths in 2013, down from 2.4 (2.2–2.6) million in 2005. In 2013, an estimated 190 000 (160 000–220 000) people died due to AIDS-related conditions in the South-East Asia Region, as compared to 210 000 (180 000–290 000) in 2001. The number of AIDS-related deaths peaked in 2005 and then started to decline, mainly as a result of initiation and programmatic scale up of ART in the Region. However,
the extent of decline in AIDS-related deaths is not as substantial as expected (Figure 6), mainly due to suboptimal coverage of ART services in most of the Member States. Thailand is an exception with a current ART coverage of 82%; the estimated AIDS-related deaths declined by approximately 40,000 between 2001 and 2013 (see Table 1).

Figure 6: Trend in AIDS-related deaths (male and female, all ages), South-East Asia Region, 2001–2013

Data source: UNAIDS, WHO. Global HIV estimates, 2014

Mode of transmission: although the epidemic is heterogeneous, the major drivers of the epidemic among Member States of the Region are unsafe heterosexual and homosexual sex, and injecting drug use.

HIV among key populations: although the overall adult HIV prevalence in the Region is relatively low at 0.3%, it is much higher among key population groups, such as FSWs and their clients, MSM, TG and PWID.
Prevalence of HIV among FSWs: according to recently reported surveillance survey data (2011, 2012 or 2013), the prevalence of HIV among FSWs in Member States varied between 0.2% and 9.4%; with Myanmar at 9.4%, Indonesia at 7%, followed by India, Thailand, Nepal, Bhutan and Timor-Leste at <5%, and Bangladesh and Sri Lanka at <1% (Figure 7).

**Figure 7: HIV prevalence among female sex workers, South-East Asia Region**

![HIV prevalence among female sex workers, South-East Asia Region](image)

Data source: UNAIDS, WHO. GARPR, 2014

Available trend data from consistent sentinel surveillance sites show that the HIV prevalence among FSWs is declining in India, Myanmar and Thailand, but has not changed significantly in Indonesia and Nepal (Figure 8).

Variation in the levels of HIV prevalence among FSWs within each country is common. In India, eight states reported a higher HIV prevalence among FSWs than the national average of 2.8%. Although HIV prevalence is declining at the national level and in the southern states, many previously low-prevalence States (Assam, Bihar, Himachal Pradesh, Jharkhand, Madhya Pradesh and Puducherry) are depicting a rise. The other two states with a higher HIV prevalence than the national average are Goa and Chhattisgarh. In Indonesia,
HIV prevalence among FSWs is very high at >15% in Jayawijaya, Batang, Kota Jayapura and Kota Denpasar. Yangon and Kyaingtong in Myanmar showed a higher HIV prevalence than the national average of 9.4% among FSWs. In Sri Lanka, the 2011 sentinel surveillance reported an HIV prevalence of 0.2% among FSWs in Galle and 0.9% in Colombo.

**Prevalence of HIV among MSM:** as per recent data from surveillance surveys (2011, 2012 or 2013) reported to GARPR, the prevalence of HIV among MSM ranged between 0.7% and 10.4% in Member States of the Region. The HIV prevalence was more than 5% in Thailand, Indonesia and Myanmar, and lower than 5% in other countries (Figure 9). However, HIV prevalence among MSM varies significantly within countries. In India, it was higher than the national level of 5% in nine states. In Indonesia, the HIV prevalence among MSM was particularly high in Jakarta (17%), Surabaya, Bandung, and also among the *waria* population in Malang and Semarang.

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*a Waria is a term for transgendered people in Indonesia, derived from the words wanita (woman) and pria (man).
Rising trends in HIV prevalence were noted among MSM in Bangkok, Thailand, and in Indonesia. However, decreasing HIV prevalence was observed in India and Mandalay in Myanmar (Figure 10).

**Figure 9:** HIV prevalence among MSM, seven countries, South-East Asia Region

![HIV prevalence among MSM, seven countries, South-East Asia Region](chart)

Data source: UNAIDS/WHO. GARPR, 2014

**Figure 10:** Trends in HIV prevalence among MSM in selected areas, South-East Asia Region, 2002–2011

![Trends in HIV prevalence among MSM in selected areas, South-East Asia Region, 2002–2011](chart)

Data source: HIV and AIDS Data Hub for Asia-Pacific
In India, three HIV sentinel sites for TG (one in Maharashtra and two in Tamil Nadu) reported an HIV prevalence ranging from 0.8% to 18.8% in 2012, when the last round of the surveillance was conducted.3

Prevalence of HIV among PWID: as per recent data reported by GARPR (2011, 2012 or 2013), the prevalence of HIV among PWID ranged between 1.1% and 36.4% in the Region (Figure 11). Based on surveillance survey results, the reported HIV prevalence in Myanmar was alarmingly high at 18% (in 2013), Thailand at 25% (in 2012) and Indonesia at 36% (in 2011), while in India (2013), Nepal and Bangladesh (2011) it was less than 10%.

Figure 11: HIV prevalence among PWID, selected countries, South-East Asia Region, 2012

However, the national average masks the wide variations in HIV prevalence among PWID within countries. In Indonesia, Jakarta, Surabaya and Medan reported a higher HIV prevalence than the national average of 36%. In India, the highest prevalence among PWID was recorded in Punjab (21%), followed by Delhi (18%), Maharashtra (14%), Manipur (13%) and Mizoram (12%). Nine states in India recorded a prevalence of more than 5%, including Madhya
Epidemiological status of HIV

Pradesh, Odisha and Chandigarh.\textsuperscript{3} Available trend data from consistent sites show that HIV prevalence among PWID is declining in Kathmandu, Nepal. There is evidence of continuing high transmission among PWID in Indonesia, Thailand, Myanmar and India (Figure 12).\textsuperscript{4}

**Figure 12: HIV prevalence among PWID in selected areas of the South-East Asia Region**

![HIV prevalence among PWID in selected areas of the South-East Asia Region](image.png)

Data source: HIV and AIDS Data Hub for Asia–Pacific

In India, new pockets of high HIV prevalence among PWID are emerging in the north, while the epidemic among PWID in northeastern India is stable since 2008. In Myanmar, Mandalay (13%), Lashio (20%) and Myitkyeena (32%) show high levels of HIV prevalence among PWID.\textsuperscript{4} Despite a successful HIV control programme in Thailand, the epidemic among PWID still poses a challenge, with Bangkok continuing to remain at a high of 30% HIV prevalence among PWID since the past decade.

**Prevalence of HIV among antenatal care attendees:** as the HIV epidemic in South-East Asia is maturing, it is spreading widely to clients of FSWs and their spouses, and to female partners of PWID. Women (15+ years) account for nearly one third of the total number of PLHIV in the South-East
Asia Region (see Figure 1). HIV sentinel surveillance among women attending antenatal clinics (ANC) could be a proxy for the HIV situation among the general population. The available ANC testing data from India, Myanmar and Thailand indicate that HIV prevalence has been declining among ANC attendees in these countries from 2000 to 2013, though a rise has been observed in Myanmar during 2011–2013 (Figure 13).

**Figure 13:** Trends in HIV prevalence among women aged 15–24 years attending antenatal clinics, selected countries, South-East Asia Region, 2000–2013

![Trends in HIV prevalence among women aged 15–24 years attending antenatal clinics, selected countries, South-East Asia Region, 2000–2013](image)

Data source: UNAIDS, WHO. GARPR, 2014

In India, none of the states showed a prevalence of 1% or more among ANC attendees during the 2010–11 sentinel surveillance. The highest prevalence was recorded in Manipur (0.78%), followed by Andhra Pradesh (0.76%), Karnataka (0.69%) and Nagaland (0.66%). The low HIV-prevalence states of Gujarat (0.46%), Jharkhand (0.45%), Odisha (0.43%) and Chhattisgarh (0.43%) showed a rising trend and recorded a higher prevalence than the national average of 0.4% among ANC attendees. Moreover, there was a rising
trend among ANC attendees in the very low-prevalence states of Assam, Haryana, Punjab and Uttarakhand.  

**New infections among children (0–14 years):** with an overall declining trend in estimated new infections among the general population, and due to the gradual scale up of preventive HIV services for mothers and children, the estimated number of new infections among children (0–14 years) showed a decline. Compared with 2001, when about 28 000 (25 000–39 000) children were estimated as newly infected with HIV in the Region, a drop of 32% was noted in 2012, with an estimate of 19 000 (16 000–28 000) new infections among this age group.

**References**

WHO’s work on HIV has been guided by a series of broad-based strategies and initiatives, including the Global Health Sector Strategy on HIV/AIDS 2003–2007;\(^1\) the “3 by 5” Initiative;\(^2\) and the WHO 2006–2010 Global Strategy for Universal Access.\(^3\) In order to further guide the health sector response to HIV, the WHO Regional Office for South East Asia developed the Regional Health Sector Strategy on HIV/AIDS, 2011–2015.\(^4\) This strategy describes the future direction and focus of work of the health sector in responding to the existing HIV epidemic, so as to achieve universal access to HIV prevention, diagnosis, treatment and care. The strategic directions are as follows:

- Optimizing the outcome of HIV prevention, diagnosis, treatment and care to ensure
  - prevention of sexual transmission of HIV,
  - management of STIs,
  - elimination of congenital syphilis,
  - elimination of new HIV infections in children,
  - increased access to HIV testing and counselling,
  - quality HIV treatment for all those who need it,
  - reduction in coinfections and co-morbidities among PLHIV,
  - strengthened mechanisms for TB/HIV collaboration,
  - prevention and care for key populations and other vulnerable populations;

- Strengthening strategic information and research to ensure evidence-based guidance for policy, decision-making, and planning for resource allocation, service delivery, and monitoring and evaluation (including HIV drug resistance [DR] monitoring);

- Strengthening health systems for the effective integration of health
services to ensure availability, access, affordability and quality, including strengthening human resources, providing innovative approaches to service delivery, optimally utilizing laboratory support and providing more effective management support;

- Creating a supportive and enabling environment to ensure equitable access to HIV services, reducing HIV-related stigma and discrimination, and removing structural barriers.

References


The level and trend of the HIV epidemic as well as the factors that drive it vary considerably from country to country. The heterogeneity of the epidemic and its drivers need to be factored in while strategizing the response to the HIV epidemic at the national level. Despite this, HIV epidemics in the South-East Asia Region share an important feature; they are centred mainly around unprotected paid sex, sharing of contaminated needles and syringes by PWID, and unprotected sex between men. Clients who buy sex from sex workers largely belong to the “general” population and are the most important factor in driving the epidemic by infecting their spouses.\(^1\) Thereby, a significant number of otherwise “low-risk” women, who have sex only with their husbands or boyfriends, are exposed to HIV. The likelihood of these women passing HIV to another man is generally very low, as relatively few women in South-East Asia have sex with more than one partner. HIV epidemics in South-East Asia are highly unlikely to sustain themselves in the “general population” independent of commercial sex, PWID and sex between men. Hence, in the present HIV epidemic scenario, prevention of HIV among FSWs, MSM and PWID is a crucial intervention in order to curtail transmission of the virus.\(^2\)

**Prevention of HIV among sex workers:** HIV prevention efforts among FSWs consist mainly of condom promotion, prevention and control of STIs, HIV testing and counselling (HTC), and linkage to HIV care and treatment for those infected. Figure 14 depicts that the use of a condom with their most recent client by sex workers is reaching high levels in most Member States; it is above 80% in Myanmar, Thailand, Sri Lanka and Nepal. In other countries such as Bhutan, Bangladesh, Indonesia and Timor-Leste, however, the reported condom use was lower, at 36–67%. Nationwide behaviour surveillance surveys (BSS, 2001–2006) in India showed that consistent condom use among FSWs had increased from 50% to 73%.\(^3\) Consistent condom use among FSWs in Mandalay, Myanmar (BSS 2008) was reported to be 97%,
while it was 35% among direct FSWs in Indonesia (integrated biological and behavioural surveillance [IBBS, 2011].

**Figure 14:** Percentage of FSWs reporting use of condom with their last client, selected countries of the South-East Asia Region, 2011–2013 (with available data in 2011, 2012 or 2013)

Data source: UNAIDS, WHO. GARPR, 2014

In the GARPR, coverage of preventive services is assessed by the percentage of sex workers surveyed who answered “yes” to two questions: knowledge of where to receive HIV testing and whether they have been given condoms in the preceding 12 months (Figure 15).

**Figure 15:** Percentage of male and female sex workers reached with HIV prevention programmes, selected countries, South-East Asia Region, 2011–2013

Data source: UNAIDS, WHO. GARPR, 2014
On the whole, the progress in HIV prevention efforts, as measured by knowledge of HIV test sites and being given condoms in the past 12 months, was reported as moderately high for FSWs in India (84.5%), Myanmar (76%) and Thailand (54%), but low in Indonesia (20%) and Bangladesh (7.5%). For male sex workers, however, this percentage was higher in Nepal (79%), Thailand (74%) and Bangladesh (63%) but low in Indonesia (12%). Important elements that contributed to this success were mapping and size estimation; community involvement through peer education and strong outreach components; condom distribution, both free and through social marketing; integrated STI screening and treatment; and monitoring and supervision.

**Lokalisasi approach to condom promotion among FSWs works in Indonesia**

The experiences of five brothel-based sex work settings (Denpasar, Jayapura, Malang, Surabaya and Tanjung Pinang) on the implementation of a condom promotion programme were examined. The major focus of these interventions was to empower sex workers so that they increase the use of condoms and access health services and, through workplace programmes, promote a demand for condom use among high-risk men in sex work. These interventions were supported by comprehensive clinical services as well as an improved system to ensure uninterrupted condom supply.

The results showed that except in Surabaya, all the respondents from all five study sites graded the condom support and use, as well as STI/HIV services and access as “strong/very good”. The empowerment, enabling and coverage aspects were graded as “strong” by the majority of respondents. Condom use at last sex with a client has increased in the past decade in four of the five study sites and, as a consequence, the incidence of HIV/STI is declining.

Key lessons learned are as follows: (a) structural barriers to condom use still exist, such as (i) tax incentives to conceal sex workers in some areas, (ii) owners who still support clients who refuse condoms. This implies that advocacy is needed to overcome the remaining structural barriers that limit impact. (b) Control of sexual transmission (STI/HIV) is feasible in direct sex work settings (lokalisasi) in Indonesia: four out of the five sites had a high level of implementation. (c) Community engagement through pokja or “working groups” is giving better results in all of these areas. (d) A combination of a good condom promotion programme, clinical services with regular check-ups, sustained outreach and socialization, as well as involvement of sex workers and other stakeholders are important for better results.

Source: Case study. WHO Regional Office for South-East Asia (unpublished document)
Prevention of HIV among MSM: HIV prevention efforts among MSM additionally focus on the provision of condoms and lubricants, expansion of HTC and in creating an enabling environment through community participation. In five Member States of the Region, condom use among MSM with their last partner was more than 60%, but it was lower at 49% in Bangladesh (Figure 16).

**Figure 16: Percentage of MSM reporting use of condom with their last partner, selected countries of the South-East Asia Region, 2011–2013**

Consistent condom use was reportedly low at 24% among MSM in Indonesia (IBBS 2011); 68% among MSM and 50% among TG in Thailand. Available data indicate that the coverage of prevention programmes among MSM varies across Member States. While India, Myanmar and Nepal reported over 60% coverage, Bangladesh and Indonesia reported less than 25% (Figure 17). The main barriers to accessing services at health-care facilities are social stigma and discrimination, coupled with inadequate legal support, which still pose a crucial challenge in reaching the MSM population group with preventive services.

Prevention of HIV among PWID: prevention of transmission of HIV through injecting drug use is especially important due to the extremely high risk of HIV transmission through contaminated injecting equipment. The limited
information available on the coverage of preventive interventions shows that it has reached 80% of the estimated population of PWID in India, while it is at 22% in Indonesia. Prevention of sexual transmission is also important among PWID. Condom use with their last partner by PWID was generally low; about 50% in Bangladesh, Indonesia, Nepal and Thailand, but higher in India (63%) and Myanmar (78%) (Figure 18). In Indonesia, consistent condom use was low at 30% among PWID (IBBS 2011).4

Figure 17: Percentage of MSM reached with HIV prevention programmes, selected countries of the South-East Asia Region 2011–2013  Data source: UNAIDS, WHO. GARPR, 2014

Figure 18: Percentage of PWID reporting use of condom the last time they had sex, selected countries of the South-East Asia Region, 2011–2013  Data source: UNAIDS, WHO. GARPR, 2014
Access to sterile injecting equipment and opioid substitution therapy (OST), referred to as harm reduction, was highly effective in reducing the spread of HIV among PWID.⁶ There were a total of 642 “needle–syringe exchange” programme sites in 2012; Bangladesh (69), India (264), Indonesia (194), Myanmar (50), Nepal (29) and Thailand (36).⁵ There has been an increase in the number of needle–syringe programme sites along with the number of sterile needles and syringes distributed in most of the countries. The number of syringes distributed per PWID per year was 287, 193 and 147 in Bangladesh, India and Myanmar, respectively, in 2013, which is above or close to the 200 of the global guideline.⁴ The indicator should be interpreted with caveats, as it needs accurate programme data on the number of clean syringes distributed vis-à-vis the estimated number of and reported use by PWID.

However, this number is significantly lower in Nepal, Indonesia and Thailand, highlighting the gaps in service to PWID in these countries (Figure 19).

**Figure 19: Number of syringes and needles distributed per PWID per year by needle and syringe exchange programmes, South-East Asia Region, 2012–2013**

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Data source: UNAIDS, WHO. GARPR, 2014
A total of 24,110 PWID were enrolled for OST across 361 sites in 2012; Bangladesh (2), India (107), Indonesia (83), Maldives (1), Myanmar (18), Nepal (3) and Thailand (147). In terms of use of sterile injecting equipment during their last injection, available data show that the use of contaminated injecting equipment was low among PWID in the Region (Figure 20). A scale up of harm reduction services was enabled by funding community-based organizations and nongovernmental organizations (NGOs) in India and Bangladesh, and by the availability of these services at primary health-care settings in Indonesia.

**Figure 20:** Percentage of PWID (both sexes) reporting the use of sterile injecting equipment the last time they injected, South-East Asia Region, 2011–2013

Data source: UNAIDS, WHO. GARPR, 2014

**Challenges:** sustaining the momentum of these targeted interventions is a considerable challenge in the future for Member States. Countries would need to sustain and intensify effective measures, especially strengthening community involvement and outreach activities, expanding HTC, and quality STI services for key populations. Another important challenge, in terms of sustenance, is to generate local geographical-level evidence, for example, on...
the changing patterns and modes of sexual work, including the presence of male sex workers, location and presence of bars, use of mobile phones for solicitation, which would need dynamic assessment for contextual planning of future interventions. Regular monitoring of interventions among MSM, TG and PWID would ensure optimum coverage of services. However, identifying, locating and reaching these high-risk and high-transmission groups with services will prove to be the most important challenge for HIV prevention and care. Stigma and discrimination against these communities in health-care settings as well as in society at large are still major barriers to an effective scale up of response and access to preventive services. Laws that criminalize same-

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**Piloting opioid substitution therapy (OST) with methadone in Dhaka, Bangladesh**

The pilot programme started in June 2010 with the opening of the methadone maintenance therapy (MMT) clinic at the Central Drug Addiction Treatment Centre (CTC) of the Department of Narcotics Control, with support initially from the United Nations Office on Drugs and Crime Regional Office for South Asia and later also from Family Health International.

The pilot intervention is aimed at reducing high-risk behaviour leading to the spread of HIV, psychological distress and drug dependency, with the goal of improving the quality of life of PWID. The MMT clinic at CTC has been providing services, such as general medicine; counselling, motivational enhancement and psychiatric services; laboratory investigations; community sensitization and meetings with anonymous participants; free HIV testing services; and referral services if required to the nearest hospital for TB screening and treatment; and a PLHIV self-help group for antiretroviral (ARV) medication only for HIV-positive patients.

The study has been ongoing for about a year and a half, and 150 clients were enrolled in 2011 and 180 in 2012. A major achievement of the pilot programme has been the successful weaning from drug dependence of 11 clients, all of whom are free from drugs for at least four months. In the case of all these 11 PWID, earlier attempts to wean them away from drugs using conventional detoxification and rehabilitation services had failed. Other notable features of the pilot have been the requirement of relatively low doses of methadone for stabilization and a high retention rate (80%). The clients of the MMT clinic at CTC were stabilized on an average dose of 49 mg in the maintenance phase.

Source: Case study, WHO Regional Office for South-East Asia (unpublished document)
sex relations and those that are punitive against PWID can be major obstacles to effective HIV prevention. They drive MSM underground and prohibit harm reduction for PWID, making it more difficult for the national programme to reach them or establish surveillance to assess the burden and provide them with the required health services. A recent example is the Supreme Court of India’s December 2013 judgment, which set aside the Delhi High Court’s progressive judgment that had decriminalized same-sex relations between adults in private, in 2009.

Supplies of condoms, lubricants, needles, syringes and other commodities call for maintaining efficient procurement and supply chain logistics. Limited coverage with harm reduction services is still an important issue that needs to be addressed, in order to ensure optimum prevention among PWID. With new geographical locations reporting localized epidemics among PWID, adequate and timely response mechanisms would remain a challenge for national programmes. The use of suboptimal dosages in OST interventions is another problem identified by several Member States.

References


HIV is primarily an STI. Both ulcerative and non-ulcerative STIs have been shown to enhance the transmission of HIV. The public health problem of non-HIV STIs also causes serious complications resulting in infertility, ectopic pregnancy and pelvic inflammatory disease. This is of particular relevance to the epidemic situation in Member States of the South-East Asia Region, where STI prevalence is high among some key populations and in some geographical areas.

**Prevalence of STIs among key populations:** available GARPR data show a high prevalence of STIs among key populations, particularly among FSWs and MSM in Indonesia, Timor-Leste and Myanmar, and among MSM in Sri Lanka (Figure 21).¹

In Indonesia, the IBBS 2011 reported very high positivity rates for syphilis, gonorrhoea and chlamydia among the surveyed populations of FSWs and

**Figure 21:** Percentage of FSWs and MSM with active syphilis, selected countries, South-East Asia Region, 2011–2012

Data source: UNAIDS, WHO. GARPR, 2013
Health sector response to the HIV epidemic: Prevention and control of sexually transmitted infections

MSM.² Syphilis seropositivity was 10% among direct FSWs, 3% among indirect FSWs, 9% among MSM and 25% among the waria population groups. Among PWID, the syphilis seropositivity rate was 2%. The percentage of key populations positive for gonorrhoea were: 38% of direct FSWs, 19% of indirect FSWs, 21% of MSM and 29% of waria. The chlamydia positivity rate was 41% each among direct as well as indirect FSWs, 21% among MSM and 28% among waria.² The IBBS 2011 also found that the median number of clients entertained per week by waria was four, and more than six in Surabaya and Semarang. In Myanmar, HIV sentinel surveillance in 2011 reported syphilis seropositivity rates of 4% each among male STI patients as well as FSWs, 2.5% among MSM and 1% among PWID.²

Elimination of mother-to-child transmission of syphilis: syphilis is an STI that leads to adverse birth outcomes such as stillbirth, neonatal death, preterm birth, low birth weight and congenital syphilis (CS). CS is preventable and treatable. Screening all pregnant women for syphilis is a cost-effective strategy, even in low-prevalence settings.³ Coverage of syphilis testing among ANC attendees is consistently high; more than 90% in Bhutan and Thailand, more than 80% in Maldives and Sri Lanka, around 60% in India, but it is still very low in Indonesia and Myanmar (Figure 22).¹

Figure 22: Percentage of women tested for syphilis at ANC visit, selected countries, South-East Asia Region, 2011–2013

The prevalence of syphilis among ANC attendees tested was still high in Indonesia (1.04%) and Myanmar (0.6%) in 2013. There has been a significant reduction in the syphilis seropositivity rate among ANC attendees, from 0.6% in 2012 to 0.1% in 2013. In 2013, Maldives, Sri Lanka and Thailand reported 0% syphilis positivity (Figure 23).\(^1\)

For those countries with more data points available, the syphilis seropositivity rates among ANC attendees showed a steady declining trend (Figure 24).

Reported data show that treatment was provided to almost 90% of pregnant women who tested seropositive for syphilis (Figure 25).

**Figure 23:** Percentage of ANC attendees who tested seropositive for syphilis, selected countries, South-East Asia Region, 2011–2013

![Percentage of ANC attendees who tested seropositive for syphilis, selected countries, South-East Asia Region, 2011–2013](chart.png)

**Figure 24:** Trends in syphilis seropositivity rates among ANC attendees in selected countries of the South-East Asia Region, 1991–2013

![Graph showing trends in syphilis seropositivity rates among ANC attendees in selected countries of the South-East Asia Region, 1991–2013.](image)

Data source: WHO, UNAIDS. GARPR, 2014

**Figure 25:** Percentage of ANC attendees who tested positive for syphilis and received treatment, South-East Asia Region, 2011–2013

![Bar chart showing percentage of ANC attendees who tested positive for syphilis and received treatment in India, Myanmar, Sri Lanka, and Thailand from 2011 to 2013.](image)

Data source: UNAIDS, WHO. GARPR, 2014
Managing syphilis infection among pregnant women in Sri Lanka

Antenatal screening with the Venereal Disease Research Laboratory test (VDRL) for pregnant mothers has been offered since the early 1950s. The Ministry of Health has clearly identified this as a major issue and facilities have been made available throughout the country. When a pregnant woman gets registered for antenatal care in the public health services, VDRL testing is offered as a routine screening test.

The majority of the tests are arranged through sexually transmitted disease (STD) clinic laboratory services. Pregnant women who access services in the private sector get VDRL screening done through private services. At the central level, the major institutions responsible for maternal and child health (MCH) work closely with the National STD/AIDS Control Programme. The Family Health Bureau, which is responsible for MCH services, emphasizes the importance of carrying out antenatal screening in their regular training programmes and reviews. Links have been developed between the primary health-care level and the district STD clinic through the provincial team, which consists of provincial authorities, including the medical officers of the MCH and district STD clinic. The staff at the STD clinic consists of both a clinical and public health team to work on prevention, which includes the antenatal VDRL screening programme.

When pregnant women with positive non-treponemal (VDRL) tests are referred to the STD clinic, repeat testing is done with specific treponemal tests to confirm the diagnosis. Pregnant women confirmed to be having syphilis are given appropriate treatment, preferably with penicillin. After completion of treatment, the pregnant woman is followed up regularly till delivery and partner treatment is also completed during this period to prevent repeat infections. The obstetrician responsible for the delivery is informed of the management of the mother, and need for testing and provision of prophylactic penicillin injections for the baby. Irrespective of the mother’s treatment, all babies born to mothers with positive treponemal tests are given prophylactic penicillin. If CS cannot be excluded, babies are admitted to the paediatric ward for daily penicillin injections for 10 days.

Smooth functioning of the programme depends on the involvement of several stakeholders. While MCH staff is responsible for collecting blood samples from pregnant mothers and delivering these samples to the laboratories, the STD clinic provides testing facilities and further management of mothers with syphilis. The link between the units is maintained through regular reviews and in-service training. Continuing advocacy among key players, including the authorities, is also an essential component of the programme.

Source: Case study, WHO Regional Office for South-East Asia (unpublished document)
Antimicrobial resistance (AMR) to gonorrhoeal infection: optimum treatment of *Neisseria gonorrhoeae* infection is necessary to achieve a microbiological cure, relief from signs and symptoms of infection, and prevent serious complications. From the available data, it is apparent that AMR to gonorrhoeal infection is increasing, causing treatment failure with the drugs currently used for its treatment in the Region. A review of the literature on the status of AMR in the South-East Asia Region was undertaken in 2011: resistance to ciprofloxacin was 83% in India (2008), 76% in Sri Lanka (2008), 87% in Bangladesh (2006) and 76% in Thailand (2008). In India, 35% of organisms were penicillinase-producing *N. gonorrhoeae* strains (2008), in Sri Lanka 53% (2008), in Bangladesh 44% (2006) and in Thailand 81% (2008).

**Challenges:** effective prevention of STIs depends on a combination of strategies that include the prevention of infection, and diagnosis and care for those infected. Almost all Member States in the Region have national guidelines for the management of STIs based on either syndromic or etiological management or both. A large proportion of patients prefer private practitioners for addressing STIs. Over the years, Member States have scaled up treatment and care activities for STIs focusing on key populations by encouraging the participation of NGOs and involvement of private doctors. A sustained response, however, is challenged by inadequate participation and compliance by the private sector for reporting and adhering to standard treatment guidelines, lack of laboratory capacity for diagnosis at decentralized reporting centres, and inadequate regular monitoring and evaluation.

**Meeting challenges to the STI programme in India**

The National AIDS Control Organization (NACO) of India has taken strong initiatives to strengthen the various challenges to the STI programme through a public health approach. Services for STIs have been expanded across the country through the establishment of 1112 designated STI clinics in district hospitals, to ensure minimum quality treatment and counselling. Fear and stigma of visiting such centres are being addressed through various communication channels. Seven regional STI training, reference and research centres have been strengthened; these are linked to 45 state reference centres and in turn to STI clinics.
Meeting challenges to the STI programme in India (continued)

They provide etiological diagnosis, validate syndromic diagnosis, monitor drug resistance to gonococci and implement quality control for syphilis testing. To reach beyond the district-level hospitals, programme planning and implementation have been converged under the National Rural Health Mission (NRHM), which enables joint planning and reviews of the national operational framework for delivery of services for sexually transmitted and reproductive tract infections (STI/RTI) at the level of subdistrict health facilities. It also provides colour-coded STI drugs at primary and community health centres, training of medical and paramedical staff, and auxiliary nurse midwives. Monthly reports on STI/RTI indicators are reported from these facilities in the existing management information system of NACO. As a result of this initiative, a total of 2.5 million episodes of STI/RTI were treated at subdistrict health facilities between April and December 2012.

In recognition of the fact that reaching out to the maximum number of people suffering from STI/RTI is not possible without the private sector, NACO partnered with professional associations and ministries such as railways and defence to support the delivery of STI services. For key populations, the preferred private provider approach was rolled out, resulting in about 2.3 million visits by key populations during 2012–2013.


References

HIV testing and counselling services are the entry point into the health system for HIV prevention and care services. Member States are making efforts to scale up HTC, but gaps remain. In 2013, around 14.5 million people received HTC in the Region, compared with 20.7 million in 2012, an approximately 30% fall.\textsuperscript{1,2} The reasons behind this fall need to be further explored, but highlight the gaps and bottlenecks in providing HTC services in the Region. The number of tests per 1000 adult population was the highest in India and Thailand (each at 20), followed by Sri Lanka, Nepal and Myanmar (14, 13 and 11, respectively), Indonesia (1.9) and Bangladesh (0.3).\textsuperscript{1,2}

As South-East Asia has a concentrated HIV epidemic, policies and guidelines recommend that HTC services should cover key populations in particular. Approximately half of the key populations (PWID, MSM and sex workers) received HTC, as determined and reported by surveillance surveys (Figure 26). There are significant variations among these key populations as well within and among Member States.

\textbf{Figure 26: Percentage of key populations receiving HIV testing and counselling in South-East Asia Region countries, 2011–2013}

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\includegraphics[width=\textwidth]{figure26}
\caption{Percentage of key populations tested for HIV in South-East Asia Region countries, 2011–2013}
\end{figure}

References


It is possible to stop new HIV infections among children and keep their mothers alive if pregnant women living with HIV and their children have timely access to quality life-saving ARV drugs—for their own health or as a prophylaxis to stop HIV transmission during pregnancy, delivery and breastfeeding. The Joint United Nations Programme on HIV/AIDS (UNAIDS) Global Plan 2011 provided the foundation for countries to move towards the elimination of new HIV infections among children by 2015 and keep their mothers alive. The Global Plan covers all low- and middle-income countries but focuses on 22 countries that have the highest estimated numbers of pregnant women living with HIV. These comprise almost 90% of all pregnant women living with HIV globally; with India being the only country from the South-East Asia Region. WHO’s Regional Health Sector Strategy for South-East Asia calls for dual elimination of mother-to-child transmission of HIV and syphilis. This is based on the similarities between vertical transmission of HIV and syphilis prevention strategies. Reproductive health services are the most common entry point to the health system for the mother and her children. Women’s access to HIV prevention, testing and referral services depend upon basic improvement in maternal, newborn and child health (MNCH) services and the extent of integration of HTC services in MNCH care. Strengthening and monitoring linkages of HIV services for pregnant women with HIV would further ensure that HIV-infected women and their children are linked to HIV treatment and care services.

**Coverage of HIV testing among pregnant women:** access and utilization of ANC services by pregnant women is the entry point for the prevention and treatment of HIV as well as syphilis. Retention along the continuum of care through the periods of delivery and postpartum further provide an opportunity to initiate prophylaxis for the prevention and
treatment of HIV and syphilis among exposed infants. Ensuring delivery of care to pregnant women and their infants at each point of contact is thus crucial. The overall proportion of pregnant women attending ANC at least once is over 90%, ranging from 35% to 100%. In 2013, however, only around 10 million pregnant women (around one fourth) received HIV testing in the Region, mostly through ANC service delivery points (Figure 27). This denotes a major gap and variation across Member States in coverage of HTC among pregnant women.

**Figure 27: Proportion of ANC attendees who received HIV testing, South-East Asia Region, 2013**

Between 2009 and 2012, coverage rates for HTC among pregnant women increased from 18% to 25%. Member States are assessing various strategies to address these gaps in coverage. For example, NACO of India is piloting a community-based HIV screening initiative, where pregnant women who are tested during labour at these facilities will be tested for HIV using blood
from a finger prick and linked with treatment services. Couple-oriented HTC initiatives have been taken up in India and Thailand to improve male participation.

**Antiretrovirals for HIV-positive pregnant women:** According to WHO’s 2013 HIV treatment recommendations, all pregnant women with HIV should receive ARV drugs; either ART for life, if eligible, or combined ARVs for prophylaxis to reduce HIV transmission. Though some progress has been made, the estimated ARV coverage among pregnant women infected with HIV remains relatively low at 26% (19–31%) in the South-East Asia Region, as compared with the global coverage of 67%. However, some countries in the Region have performed well in providing PMTCT services. For example, Thailand has achieved PMTCT coverage of 95%, followed by 72% in Myanmar in 2013. On the other hand, the coverage of PMTCT services is 18% in India, and 9% in Indonesia (Figure 28).

**Figure 28:** Proportion of HIV-positive women who received ARVs, South-East Asia Region, 2013

Data source: WHO, UNAIDS. GARPR, 2014
Early infant diagnosis (EID) of HIV: the progression of HIV is rapid in children. Infants infected with HIV during pregnancy, delivery or early postpartum often die before the infection can be recognized. WHO recommends that national programmes establish the capacity to provide early polymerase chain reaction (PCR)-based virological testing of infants for HIV at six weeks of age or as soon as possible thereafter. This will help early identification of infected children and link them to HIV treatment, care and support services. Out of the five high HIV-burden countries in the Region, India and Thailand have wider availability of facilities for EID, but they are still limited in Indonesia, Myanmar and Nepal. In 2012–2013, the estimated coverage of EID was still limited (<20%) at the Regional level. However, the coverage of EID reached 78% in Thailand in 2013. The availability of specialized laboratory infrastructure, logistics management, internal and external quality assurance of the laboratory, and skilled human resources to be able to undertake complex PCR methods are crucial for the establishment and scale up of EID services. Ensuring a countrywide scale up is a challenge for national programmes. Transport and management of plasma specimens from remote areas to the EID laboratories poses another important challenge. The use of dried blood spots (DBS) permits blood samples to be collected in remote locations and allows countries with a limited number of specialized laboratories to expand access to virological testing.

India has plans for a phased nationwide roll-out to ensure the availability and accessibility of HIV testing by DNA PCR tests for children below 18 months. This will be conducted at all the integrated counselling and testing centres using DBS and at all the ART centres using whole blood samples.5

Antiretroviral prophylaxis for infants: the risk of mother-to-child transmission can be significantly reduced by the complementary strategies of providing ARV drugs (as treatment or as prophylaxis) for the mother during pregnancy and delivery, with ARV prophylaxis for the infant, ARVs to the mother during breastfeeding (if breastfeeding), and use of safe delivery practices and safer infant feeding. From the available data from select Member States in the South-East Asia Region, out of an estimated 43 918 HIV-positive women giving birth, a total of 21 505 (49%) infants
received ARV prophylaxis to reduce early MTCT (i.e. early postpartum, in the first six weeks) (Figure 29). Among the high HIV-burden countries of this Region, the coverage level varied from 12% in Nepal to 98% in Thailand.

**Figure 29:** Proportion of infants born to HIV-positive mothers who received ARV prophylaxis within six weeks of birth, South-East Asia Region, 2012

![Graph showing proportion of infants born to HIV-positive mothers who received ARV prophylaxis within six weeks of birth](image)

Data source: UNAIDS, WHO. GARPR, 2013

**Challenges:** nationwide programmes for PMTCT of HIV infection, which include HIV prevention, HTC, HIV treatment for women and infants, postpartum follow up and infant feeding, and family planning, have their own barriers to successful scale up. Optimum utilization of services is adversely affected by stigma, need for frequent visits, reluctance to initiate ARV and fear of lack of confidentiality. HIV prevention and treatment for mothers and children, rather than being perinatal interventions, need to be considered as an opportunity for engagement of a longer continuum of care. One of the important challenges is the conspicuous gap in coverage of HIV testing for pregnant women. Across Member States, while many women come for ANC, except in Thailand, not all of them get tested for HIV (see Figure 27).
For pregnant women detected to be HIV positive during the course of their pregnancy or delivery, the second important point of attrition is at the stage of receiving ARVs. There is a large gap in coverage of ARVs for HIV-positive pregnant women in the three high HIV-burden countries in the South-East Asia Region; India, Indonesia and Nepal (see Figure 28). Coverage of services for EID is low in most of the countries. In 2012, EID was received by only 39% of infants born to mothers who tested HIV positive in India, while in Thailand, 98% of HIV-exposed infants received EID (Figure 29).

The PMTCT programme in Thailand has extensively focused on improving the capacity for HTC at all tiers of the health-care system, from the subdistrict to the regional level, along with ensuring confidentiality of patient-related information and laboratory results. A study in a rural setting in India assessed a simultaneous triple point-of-care (POC) screening strategy for syphilis, hepatitis B and HIV among pregnant women; it found that the method was feasible in a rural setting and was accepted by all study participants.

Significant efforts are thus required to reduce attrition at each step of HIV care service delivery. Strengthening the linkage between MNCH care facilities and facilities providing EID and ART would be fundamental to prevent such attrition. Addressing loss to follow up would require strong and effective mechanisms for referral and entry into treatment and care for infants diagnosed with HIV, as well as for their mothers who require treatment after pregnancy and breastfeeding. Greater community engagement and other health service delivery and programme monitoring for HIV will also be required. Women living with HIV must also have access to family planning services to be able to avoid unwanted pregnancies.
About 71% of the total estimated HIV-positive pregnant women in the South-East Asia Region reside in India. Hence, reaching regional targets for universal access will depend on increasing coverage in India. In 2012, 13,206 (35%) of the estimated HIV-positive pregnant women received ARV prophylaxis in India. Bridging the gap between the estimated number of pregnant women who need PMTCT services and the women actually detected by the PMTCT programme is a key challenge. Overall, out of the estimated 29 million pregnancies in India, more than 90% availed antenatal care at least once (in 2012), of which only 28% were counselled and tested for HIV. One of the important reasons for this large gap in HIV testing of pregnant women is inadequate service delivery at the subdistrict and block levels.

To address this gap, NACO under the National Strategic Plan for PMTCT, plans to expand HTC at the subdistrict level through “stand-alone” HTC centres at all community health centres (CHC), especially in high-focus districts. Service delivery points below CHCs are to be covered by the establishment of “facility-integrated” HTC centres. Under this model, staff from existing health facilities will be trained in counselling and testing, and service delivery will be ensured with logistical support from NACO. Ensuring service delivery at such a scale at the subdistrict level would involve consideration for human resource availability and laboratory facilities.

According to the Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection, India has opted for option B of the multiple drug regimen. This regimen has been successfully launched in the two high HIV-prevalence states of Andhra Pradesh and Karnataka since September 2012. A nationwide launch is planned in a phased manner. However, linking HIV-positive pregnant women to care and treatment is a challenge. A review of studies in India on the uptake of services in the PMTCT cascade found a mean ARV uptake (of mothers) of 46%, within a range of 9–84%.

Recent programme data (January–June 2013) showed that 84%, 96% and 96% in Karnataka, Andhra Pradesh and Tamil Nadu, respectively, of women detected to be HIV positive in the PMTCT programme were linked to ART centres. Coverage of EID among infants born to HIV-positive mothers is challenged by the infrastructural set-up, as well as their linkage to care and follow up post delivery. A total of 5901 HIV-exposed infants received EID at two months after birth in 2012, out of the estimated 38,202 women requiring PMTCT. Early HIV virological
Initiatives to scale up PMTCT at the subdistrict level in India (continued)

testing of HIV-exposed infants aged two months or less is critical for appropriate follow-up care and treatment.

To enhance the coverage of early diagnosis of HIV-exposed infants, NACO plans to provide access to EID services at all the “stand-alone” HTC centres. Effective referral linkages between service delivery points, HTC centres, laboratories, ART centres and EID facilities are also planned.


References


Considerable progress has been made in the South-East Asia Region in improving access to ART for PLHIV. By the end of 2013, approximately 1,100,000 people were receiving treatment. This is an increase of 160,000 over 2012, and translates to a more than twelvefold increase, from 83,000 patients who were on ART in 2004 (Figure 30). Scaling up the number of health facilities providing ART is an important factor that has helped in increasing access to ART. By the end of December 2013, ART was being provided through more than 2,300 health facilities in Member States of the Region. Most of these ART centres were part of the government health facilities. Decentralization of ART services at the district or subdistrict levels was another important factor that facilitated access to ART for eligible PLHIV. Available disaggregated data from Member States in the Region suggest that around 46% of those receiving ART are women. Children (0–14 years) constitute around 5% of those on treatment.¹

Coverage of ART: based on the 2014 UNAIDS guidelines,¹ ART coverage is calculated as a percentage of all PLHIV. Globally, the ART coverage is estimated at 36% (range 34–38%);² the overall coverage of treatment in the South-East Asia Region is 33% (range: 27–39%) (Figure 30).²

The majority of people receiving ART reside in five high HIV-burden countries – India, Thailand, Myanmar, Indonesia and Nepal. ART coverage varies widely among these Member States; 57% in Thailand, 36% in India, 35% in Myanmar, 23% in Nepal and 8% in Indonesia (Figure 31).

Retention on ART: the results of the HIV Prevention Trials Network (HPTN)-052 confirmed that earlier initiation of ART reduces HIV transmission by 96% among discordant couples in a stable relationship.³ The effect of ART at the population level depends on the uptake along the cascade from HIV testing to treatment, communication across the cascade with improved
**Figure 30:** Number of HIV-infected people receiving ART among adults and children in the South-East Asia Region, 2003–2013

![Graph showing the number of HIV-infected people receiving ART from 2003 to 2013.](image)

Data source: UNAIDS, WHO. GARPR, 2014

**Figure 31:** Country-wise number of people on ART and estimated ART coverage (based on 2014 UNAIDS and WHO estimates and guidelines), South-East Asia Region, 2013

![Graph showing country-wise ART coverage and number of people on ART.](image)

Data source: UNAIDS, WHO. GARPR 2014
monitoring and evaluation, and prevention and surveillance of HIV-DR. The ART cascade consists of the following steps:
— Step 1: diagnosing HIV infection;
— Step 2: linking people who take an HIV test to treatment and prevention services;
— Step 3: enrolling and retaining people in pre-ART care;
— Step 4: initiating ART; and
— Step 5: ensuring long-term adherence to ultimately achieve and maintain viral load suppression.4

Impressive ART scale-up efforts in the Region have resulted in significant improvements in retention among persons receiving therapy (Table 2). Analyses of national programme data from six Member States indicated that, of cohorts initiated on first-line ART, the overall 12-month retention rates in 2013 were satisfactory and comparable with that of 2010, and with rates from other resource-limited settings, ranging from 79% in Sri Lanka to 93% in Bangladesh. Longer-term follow-up information available from some Member States indicated that retention rates at 24 months are all over 70%. It is noted that fewer countries are able to report longer-term retention at 60 months.1

<table>
<thead>
<tr>
<th>Country</th>
<th>% on ART at 12 months (%)</th>
<th>% on ART at 24 months (%)</th>
<th>% on ART at 60 months (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>87</td>
<td>93</td>
<td>88</td>
</tr>
<tr>
<td>Indonesia</td>
<td>70</td>
<td>NA</td>
<td>62</td>
</tr>
<tr>
<td>Myanmar</td>
<td>89</td>
<td>84</td>
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</tr>
<tr>
<td>Nepal</td>
<td>NA</td>
<td>86</td>
<td>NA</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>91</td>
<td>79</td>
<td>92</td>
</tr>
<tr>
<td>Thailand</td>
<td>81</td>
<td>83</td>
<td>80</td>
</tr>
</tbody>
</table>

Table 2: Retention on ART at 12, 24 and 60 months among people on ART, selected countries, South-East Asia Region

Data source: UNAIDS, WHO. GARPR, 2014
Tracking information across the ART cascade is still patchy. The recently published results of a cohort study from Anantpur district in Andhra Pradesh, India, which followed more than 7000 HIV-positive people, reported that 70% entered into care within three months; 65% of patients who were not eligible for ART at the first assessment were retained in pre-ART care; 67% of those eligible initiated treatment within three months; 30% of patients who initiated ART died or were lost to follow up, and 82% achieved virological suppression as seen by the last viral load results. Most of the attrition occurred in the pre-ART stages of care. It was estimated that only 31% of patients diagnosed with HIV and engaged in care achieved virological suppression.

**Antiretroviral drugs for children (0–14 years):** In 2013, a total of 54,098 children aged 0–14 years of age were reportedly on ART in the South-East Asia Region. Among these, 41,636 (77%) were from India, followed by 5142 from Thailand, 4925 from Myanmar, 1695 from Indonesia, 638 from Nepal and 60 from Bangladesh. ART coverage among children has been calculated as the percentage on paediatric ART divided by the total estimated number of children (0–14 years) living with HIV. The paediatric ART coverage in the Region varies; ranging from 62% in Thailand, to 43% in Myanmar, 34% in Nepal, 30% in India, 21% in Bangladesh and 7% in Indonesia (Figure 32).

**Figure 32: Number on ART and coverage among children (0–14 years), selected countries, South-East Asia Region, 2013** Data source: UNAIDS, WHO. GARPR, 2014
Health sector response to the HIV epidemic: Antiretroviral therapy

TB/HIV collaborative activities: TB infection accelerates progression of HIV infection to AIDS and leads to early mortality. Therefore, prevention of TB, and early detection and treatment of TB/HIV co-infection are important to ensure reduction in mortality. The goal of collaborative TB/HIV activities is to decrease the burden of TB and HIV in people at risk of or affected by both diseases. According to the WHO Guidelines, 2012, the objectives of TB/HIV collaboration are: (i) to strengthen mechanisms for collaboration between the two programmes; (ii) to reduce the burden of TB in HIV-infected people and their families by delivery of the Three I’s for HIV/TB that includes intensified case-finding (ICF), isoniazid preventive therapy (IPT) and infection control (IC) at all clinical encounters; and (iii) to reduce the burden of HIV in patients with presumptive and confirmed TB and their families by providing HIV

Expansion of ART coverage in Myanmar

Since the start of the national ART programme in 2005, Myanmar has made impressive achievements in scaling up ART in the country. In 2013, 67,643 PLHIV, or 35% of the estimated number of PLHIV, were receiving ART, up from 3500 PLHIV on ART in 2005. In 2013, 4925 children (0–14 years) living with HIV were getting treatment.

This achievement is significant, given the limited funding for ARVs until the latter half of the past decade. ART services under the flaghsip of the National AIDS Programme were introduced with technical and financial support from the Management Sciences for Health Holland (2003), followed by funding support from the Fund for HIV/AIDS in Myanmar, Global Fund Round 3, the Three Diseases Fund from 2005, and accelerated since 2011 with funding from the Global Fund Round 9.

The country plans to attain universal ART coverage for all eligible patients by 2015 through rapid adaptation of the global guidance followed by strategic planning and programming as a key feature of scaling up ART in the country. Further actions are needed in terms of diagnostics and treatment simplification through the use of fixed-dose combination (FDC) drugs and POC tests, decentralization of services and improved quality of care to strengthen the testing–treatment linkage and retention in care.

Source: Case report, WHO Regional Office for South-East Asia (unpublished document)
prevention, diagnosis and treatment. Figure 33 shows the estimated number of incident TB cases among PLHIV who received treatment for both TB and HIV in the South-East Asia Region in 2012. In India, NACO has planned the implementation of IPT at all ART centres in the country, with roll-out in 2013–2014.7

**Figure 33: Coverage of TB/HIV services, South-East Asia Region, 2012**

Data source: UNAIDS, WHO. GARPR, 2013

**Challenges:** Just about a third (33%) of PLHIV were receiving ART by 2013 in the South-East Asia Region. This is lower than the global ART coverage of 36%.² This gap in treatment coverage is an obstacle to the success of the current HIV programme. There are reasons for this gap, from both the health sector as well as the client/patient perspective. The most important reason is the limited number of people getting tested for HIV, especially among key population groups, such as sex workers, MSM, PWID and TG. Difficulty in creating effective linkages between HIV testing centres and HIV
care at ART centres is still a fundamental issue that will need innovative approaches to surmount. Retention of patients throughout the HIV care and treatment continuum ensures an optimal outcome. However, low testing coverage and attrition at different levels of the care continuum continues to hamper progress. Monitoring of the cascade at the local level will need strengthening. Effective local solutions will need to be instituted through linked operational research.

Identifying innovative methods to decentralize ART services is important as ART services continue to expand. The National HIV Programme of India, which covers about 66% of the people in need of ART in the South-East Asia Region, initiated decentralization of ART services through centres that could dispense ART drugs once eligibility was ascertained and the patient was registered for ART. This initiative was based on the evidence that many HIV-positive people who were still asymptomatic failed to turn up regularly at the designated ART centres, on account of difficulties in transportation and distance to be travelled. These subdistrict-level centres, presently 840 in number, dispense ART drugs and screen for any adverse effect, in which case the patients are referred to the main ART centre. To further reduce the gap, pre-ART management has been initiated in some select centres; patients are followed up at these centres called “Link ART Centre-Plus” till they become eligible for ART or are referred to ART centres for other reasons.

Decentralization of ART services provides an opportunity to strengthen subdistrict-level health systems through the development of human resources and infrastructure. One of the important constraints at the subdistrict level is the absence of an adequate laboratory set-up. POC testing for HIV can be most useful in resource-limited or outreach settings where there is a lack of well-trained laboratory technicians, poor physical infrastructure, extremes of climate and lack of uninterrupted power supply, all of which impact the use of laboratory technologies. POC testing for CD4 assessment is another novel option. Studies have shown POC tests for CD4 count were able to perform assessment for ART eligibility within 20 minutes and were instrumental in reducing attrition between HIV testing and assessment for ART eligibility. POC technology for measuring CD4 count is currently still limited in the Region.
Strategies that involve training primary health-care workers to effectively provide follow-up ART services have been successfully piloted in the Region. Experiences from Thailand have demonstrated the importance of a strong health-care system and stable health workforce to successfully decentralize HIV treatment services. Linkage between the TB and HIV programmes is crucial for ensuring that TB/HIV-coinfected patients receive timely ART. The linkage to ART is more of a challenge when considering the small number of ART centres in comparison to the high density of TB treatment centres.

Adoption of the new ARV policy in Member States of the South-East Asia Region: WHO has proposed new guidelines for treatment that recommended initiation of HIV treatment at CD4 counts below 500 cells/mm³. In 2014, all 10 HIV-affected countries in the Region adopted the new CD4 count cut-off. To reduce HIV transmission to uninfected partners, from 2014, the infected partners of serodiscordant couples would be provided ART irrespective of CD4 count in Bangladesh, Bhutan, India, Indonesia, Nepal, Thailand, Sri Lanka and Timor-Leste. Indonesia has a policy for providing ART to all HIV-positive key populations irrespective of CD4 count. Thailand had recently rolled out new guidance on offering ART to all HIV-positive people irrespective of CD4 levels.

Some of the potential challenges associated with the new treatment guidelines that expanded eligibility for initiating ART early are as follows: (1) sustainability – funding for universal access to treatment. However, wider treatment uptake would ultimately result in longer-term savings arising from a reduction in infections. (2) HIV drug resistance – the overall impact of expanding treatment eligibility on the risk of drug resistance is expected to be crucially dependent on the viral suppression achieved, which in turn is affected by patterns of adherence. Monitoring and supporting adherence to treatment is therefore critical. (3) Logistics management – structural factors that affect adherence to ART include treatment disruptions to regimens, often caused by drug stock-outs due to inadequate forecasting, poor transportation or inventory management systems, or lack of trained professionals to deliver treatment, care and monitoring.

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b Country reports to WHO Regional Office for South-East Asia
Targeting universal coverage with ART by 2015 in Nepal

The ART programme in Nepal started in 2004 with two centres. In 2005, 522 PLHIV were on ART, which increased to nearly 10 000 by 2013. This was an almost 20-fold increase in a decade. The National Investment Plan of Nepal (2013) has targeted provision of ART to 15 000 PLHIV by 2015. As of 2012, there are 44 sites providing ARVs, located in the districts with a large number of PLHIV.

Reasons for the success in up scaling ART in Nepal: these include political commitment, partners’ support, adaptation of WHO recommendations, use of FDCs since 2009; enhanced capacity of health staff in clinical management and counselling; increased supply of CD4 machines to clinics (currently, there are 19 ART sites equipped with CD4 machines); establishment of HTC sites targeting key populations – FSWs, MSM, PWID and migrants; uninterrupted supply of ARVs to sites and building the confidence of PLHIV; and implementation of TB/HIV collaborative activities. One innovative approach that contributed to increasing the uptake of ART was the involvement of key populations in various aspects of planning and implementing ART services at different levels, such as establishing social care units at ART sites with the engagement of PLHIV, who advocated positive prevention, traced those lost to follow up, and conducted adherence counselling for treatment.

Expansion of ART services not only contributed to HIV control activities, but also strengthened the national and district health systems in laboratory and logistical management by provision of equipment and additional cold room facilities.

Source: Case report. WHO Regional Office for South-East Asia (unpublished document)

References


Data triangulation and contextual analysis for programmatic decision-making: given the widely differing characteristics of the epidemics between and within Member States, national responses must be guided by the latest facts on the nature of the respective HIV epidemic. To ensure an effective health sector response despite resource constraints, decision-makers for national HIV programmes should be equipped with the necessary information to be able to prioritize and make an informed decision. This information set, termed “strategic information”, would basically provide insight on the current state and trend of the HIV epidemic by geographical areas and population groups affected; factors that drive the epidemic in a given geographical area, including the presence and size of key populations, status of STIs, risk behaviours; special factors that drive the epidemic but are contextual to the geographical location; and status of programme responses, including infrastructural and human resource information. Based on this set of information, a gap analysis of programme response and information would be required to help strategize the decision taken. Triangulation of data, i.e. collective interpretation of all the data elements, would further aid the decision-making process.

Programme monitoring: regular monitoring of programme data is important for tracking the status of service delivery of all components of the national HIV programme. Monitoring of the cascade of continuum of care in PMTCT should be able to quantify, by geographical location, the losses happening at various nodes, namely: HIV-positive pregnant women—blood drawn for CD4 count, received test results of CD4 count, did not initiate treatment or prophylaxis, delivery, infant tested at six weeks, infant tested at 18 months. The unmet need for ARV drugs for PMTCT should be monitored regularly, disaggregated by geographical area. As seen from a review of the
HEALTH SECTOR RESPONSE to HIV in the SOUTH-EAST ASIA REGION, 2013

Strengthening strategic information in India

NACO of India created a framework to classify and prioritize programmatic attention for HIV prevention and control in the 640-odd districts of the country using strategic information and data triangulation. In addition to the HIV prevalence levels among key populations and ANC attendees, this framework included a third data element on the size of key populations to capture the potential risks of an area, by considering its degree of vulnerability. Multiple data sources for the same information were triangulated, e.g. HIV-positivity rates among key populations from sentinel surveillance and HTC centre data on key populations; HIV-positivity rates among pregnant women; sentinel surveillance among ANC attendees and HTC centre data on pregnant women. As per this classification, as many as 103 districts moved higher in the risk category in the “low”-prevalence states, reflecting increasing vulnerability and emerging epidemics in these districts.


2013 data in the South-East Asia Region (Figures 27–29), large gaps exist in the coverage of services for PMTCT between attending ANC and getting HIV tested, diagnosis of HIV positivity and ARV for mothers, early diagnosis of infants and ARV prophylaxis for infants (<6 weeks). Identification of these gaps would require a search for the cause, which could be global or local in nature. A recent review of individual components of the PMTCT cascade in India2 highlighted the lack of literature, thereby indicating the need to take up high-quality operational research with a clear objective of providing answers to these questions. The cascade in ART programmes should focus upon: person tested HIV positive, enrolled in HIV care (pre-ART); underwent CD4 testing and registered at an ART centre. Retention cascade at ART centres should pursue cohorts registered at a given point of time for continuing on first-line ART; failure of first-line regimen and lost to follow up and death.3 A recently published WHO guidance document provides a simple yet comprehensive framework for assessing, analysing and presenting the HIV cascade of services at the national and subnational levels.4
In countries opting for the new guidelines on expanded eligibility for initiating ART among adults, it would be crucial to monitor the following information: adverse reactions, toxicity as well as coinfections and co-morbidities, failure on first-line treatment, etc., which would be important for clinical decision-making; implications of starting early ART on the retention cascade; and monitoring the number and percentage of different populations (such as adults, adolescents, children, and pregnant and breastfeeding women) who have initiated ART based on the new eligibility criteria. Pharmacovigilance needs to be built into ART programmes. If a Member State plans integration of ART services with MCH or TB services, or if task-shifting is being planned at the ART centre, such progress would need to be monitored. Operational monitoring related to laboratory and diagnostic services, as well as procurement and supply chain management systems would require special attention. The percentage of ART facilities with ARV drug stock-outs in a given period and reasons thereof would need to be identified and addressed promptly. New formats for monitoring would be required to accommodate these changes.  

**HIV and STI surveillance:** periodic HIV serological and behavioural surveillance is being conducted in eight Member States of the South-East Asia Region. This continues to give crucial information on the levels and trends of the epidemic by place and population groups, and also feeds into the modelling process for HIV estimation. Indonesia, Nepal, Thailand and Timor-Leste have conducted IBBS, while India, Myanmar and Sri Lanka plan to conduct the survey. Indonesia, Sri Lanka, Thailand and Timor-Leste are currently conducting STI surveillance.  

To ensure country-level planning and effective local implementation of STI services, reliable and consistent epidemiological information is required on the distribution of STI cases, rates and trends of newly acquired infections, STI prevalence in specific population groups and the pattern of antimicrobial resistance. Information on STIs are also an indication of the success of HIV prevention efforts among key populations, which is a critical strategy for Member States of the Region.

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c Detailed information can be availed of at www.who.int/hiv/pub/guidelines/arv2013/annexes.

d Source: Country reports to the WHO Regional Office for South-East Asia
HIV drug-resistance surveillance: substantial progress has been made in expanding surveillance systems for HIV-DR in the Region. With the expansion of treatment in recent years, there is a possibility that the prevalence of transmitted HIV-DR may have increased (i.e. pre-existing resistance in those who have not received ART and those newly infected), particularly to non-nucleoside reverse transcriptase inhibitors, among recently infected populations in the areas surveyed. In the South-East Asia Region, HIV-DR threshold surveys were completed in three countries between 2005 and 2007: India (2), Indonesia (1) and Thailand (3); these indicated a low level (<5%) of transmitted DR, and that currently recommended first-line ART regimens are effective for most people initiating treatment. As ART continues to be rolled out, the rates of transmitted DR may increase. Robust surveillance systems must be in place to detect potential future increases in a timely manner.

According to the recommendations of recent WHO guidelines, pre-treatment and acquired DR surveillance should be prioritized to inform the selection of ART regimens for people starting treatment, and the choice of second- and third-line treatment regimens for people failing the first-line ART regimen. Another key element is the collection and follow up of early warning indicators (EWIs) for HIV-DR. These indicators assess factors that are associated with determining preventable emergence of HIV-DR at the level of ART centres, and can be acted on at the ART centre and programme level for other such types of centres. A national strategy for HIV-DR would help provide direction on the prevention and assessment of HIV-DR at the country level.

References


Key challenges in achieving universal access to HIV prevention, care and treatment services in the South-East Asia Region include the following:

- continuing stigma and discrimination against PLHIV and key populations in the society and in the health sector;
- limited capacity of health systems, including lack of trained human resources, inadequate supplies of equipment and/or drugs due to poor logistics and supply chain management, limited laboratory capacity, weak monitoring and evaluation systems;
- need for continued focus and sustained political commitment to HIV; and
- limited resources in the face of competing health priorities.
The following need to be done to sustainably scale up the health sector response to HIV in the South-East Asia Region:

1) Design structural interventions to reduce stigma and discrimination in community and health-care settings, especially for key populations at higher risk, and address legal barriers by repealing discriminative laws that hinder access to prevention interventions.

2) Increase the coverage of and access to HIV prevention, treatment and care services for women and children through integrated and linked responses with sexual, reproductive and MCH services for eliminating mother-to-child transmission of HIV and preserving the health of women and children.

3) Enable people to know their HIV status by decentralizing HTC services.

4) Improve access to and quality of HIV treatment through linkage and decentralization to the subdistrict level.

5) Provide support for treatment adherence; ensure regular monitoring through EWIs to delay the development of HIV-DR.

6) Continue to advocate for reducing the price of ARV drugs through the use of international treaties and instruments such as flexibilities in the Trade-Related Aspects of International Property Rights (TRIPs).

7) Support strengthening of health systems to increase the capacity for implementing and scaling up HIV interventions.

8) Continue commitment to and active collaboration with TB programmes to reduce the burden of TB/HIV.

9) Strengthen strategic information and its use for local decision-making.

10) Invest in implementation science research for identifying the best-fit response to the local context.
The health sector has been playing a pivotal role in the national response to HIV of Member States of the South-East Asia Region of WHO. Member States have enormous opportunities, in the context of universal health coverage, to further scale up their responses to HIV with innovative service delivery models, including decentralization of HIV testing and treatment services, and integration of HIV services with maternal, newborn and child health services and tuberculosis control programmes. This report highlights the achievements, factors contributing to the successes and underlines the challenges to sustaining effective responses at the country level.