RECLAIMING REDEFINING RIGHTS

ICPD+25:
Status of SRHR in Asia and the Pacific

the **STATUS** *of* **HIV** *and* **STI** *in* **ASIA** *and the* **PACIFIC REGION**

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arrow
asian-pacific resource & research centre for women

THE STATUS OF HIV AND STI IN ASIA AND THE PACIFIC REGION

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ABOUT THIS BRIEF

This brief is part of ARROW's State of the Region Report on Sexual and Reproductive Health and Rights: International Conference on Population and Development (ICPD+25), developed as a result of monitoring of 25 years of implementing the ICPD programme of Action in the region by ARROW and our partners. This is the fifth five-yearly review, research and monitoring report contributing to insights on progress, gaps and challenges to ICPD PoA implementation in the region. This brief provides an overview of the status of SRHR in Asia and the Pacific region with a focus on 19 countries. The monitoring series also includes country level research findings around the status of ICPD implementation in 13 countries in the region.

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HIV: An Overview

The narrative around the AIDS epidemic continues to convey the huge impact it has across the globe for over 35 years now. The earliest known case of HIV infection was reported in 1959 and since then, it has caused approximately 75 million infections and claimed over 30 million lives.[1, 2] Only after almost 25 years into the epidemic, between year 2005 and 2016, 17 million people of the estimated 36.7 million people living with HIV were engaged in treatment[3] and AIDS-related deaths were nearly halved from a peak of 1.9 million deaths in 2005 to 1.0 million deaths in 2016.[4] In the recent years, the number of people accessing antiretroviral therapy continued to increase to 23.3milion in 2018 further reducing AIDS-related deaths to 770,000.[5, 6] The antiretroviral therapy has proven its capacity to extend the lifespan of people living with HIV by suppressing the virus and stopping the progression of HIV.

However, danger still lurks in the form of new infections. While gradual progress is observed in the reduction of new HIV cases, the scale of reduction is not rapid and large enough to reach the Ending AIDS target, particularly the 2020 targets agreed on at the United Nations General Assembly.[7] The UNAIDS warns that the gains are getting smaller year-on-year despite the fast approaching 2020 targets. At the global level, the annual number of new HV infections saw a 16% reduction from 2.1 million in 2010 to 1.7 million in 2018, but this reduction is far from the 2020 target of fewer than 500,000 new infections.[8] The reduction in the number of new cases is largely driven by the Eastern and Southern Africa region where the largest reduction in new HIV cases and AIDS-related death was recorded during these periods.[9] The rest of the world, particularly in regions with epidemics mostly concentrated among the key populations including Asia and the Pacific, a much slower and smaller progress is observed.[10] Asia and the Pacific recorded only a 9% reduction in 2018.[11] The percentage was higher in 2017 and 2016 with a reduction of 14% and 13%, respectively.

The region risks gains made in the last decade with a highly uneven response among the countries. If the current pace of decline in new infections is not intensified and more people living with HIV are not engaged and retained in treatment for viral load suppression and prevention of onward transmission, the region could be headed for a resurgence of the epidemic. Evidence generated through epidemiological modelling suggests that an accelerated response to the HIV epidemic is crucial to sustain the achieved progress.[12] Besides, progress is patchy, requiring further strengthening especially in areas concerning prevention including HIV testing and treatment services focused on key populations.[13] Between 2016 and 2018, only half of the key population in the region know their HIV status and this slows down the effort to ensure all people living with HIV are engaged in treatment for viral load suppression and prevention of onward transmission.[14]

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There is still a window of opportunity for the region to act fast and end the epidemic. As it is a call for an urgent response, governments in the region are faced with a decisive moment, to accelerate response to the HIV epidemic taking to scale the three decades long response. Governments are pushed to quicken the pace and Fast-Track progress towards ending the epidemic. A pressing need for accelerated responses at global, regional, and national levels to outpace the epidemic has become imperative, more than ever. The need for a strategic response can be traced back to Paragraph 8.29 of the ICPD PoA objectives on HIV/AIDS urging governments *"to prevent, reduce the spread of and minimize the impact of HIV infection; to increase awareness of the disastrous consequences of HIV infection and AIDS and associated fatal diseases, at the individual, community and national levels, and of the ways of preventing it; to address the social, economic, gender and racial inequities that increase vulnerability to the disease."*[15]

In terms of other international norms and standards around HIV, in 2011, the UN General Assembly adopted the Political Declaration on HIV/AIDS with a special focus on advancing human rights actions to reduce

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stigma, discrimination, and violence related to HIV by reviewing laws and policies that adversely hinder the delivery of and access to HIV services.[16] Also, the International Covenant on Economic, Social and Cultural Rights requires governments to "recognise the rights of everyone to the enjoyment of the highest attainable standard of physical and mental health' and provides that the rights of people particularly the right to health together with other rights guaranteed by the Covenant is respected, protected, and fulfilled at all times by member states without any discrimination."[17] The International Covenant on Civil and Political Rights requires governments to commit to laws against discrimination to guarantee equal and effective protection from discrimination. The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) shields women from all forms of discrimination and requires governments to guarantee access to health services.[18] These treaties are signed and/or ratified by most of the countries in the region. Other human rights resolutions that address HIV, particularly ensuring key affected women and girls, including women and girls who are living with HIV, female injecting drug users, female sex workers, transgender person, mobile and migrant women, female prisoners, women with disabilities, women in sero-discordant relationships, and intimate partners of men who engage in high risk behaviour of contracting HIV include:

i. Resolution 38/5 on Accelerating efforts to eliminate violence against women and girls: preventing and responding to violence against women and girls in digital contexts.
ii. Resolution 35/10 on Accelerating efforts to eliminate violence against women: engaging men and boys in preventing and responding to violence against all women and girls.
iii. Resolution 35/18 on Elimination of discrimination against women and girls
iv. Resolution 32/19 on Accelerating efforts to eliminate violence against women: preventing and responding to violence against women and girls, including indigenous women and girls.
v. Resolution 14/12 on Accelerating efforts to eliminate all forms of violence against women: ensuring due diligence in prevention

Further to this, the Sustainable Development Goals (SDGs) continue to build on the momentum generated by the Millennium Development Goal (MDG) guiding countries in achieving a multi-sectoral, rights-based, people-centred approach for healthy lives and promoting the well-being of everyone at all ages (including universal access to HIV prevention services, sexual and reproductive health services, drug dependence treatment, and harm reduction services).

The 2016 Political Declaration on Ending AIDS, moreover, supports the 2030 Agenda for Sustainable Development by providing a global mandate for fast tracking the AIDS response through the following key targets:

1. Reduce new HIV infections to fewer than 500,000 globally by 2020.
2. Implement the 90–90–90 treatment target to ensure that 30 million people living with HIV access treatment by 2020.
3. Reach all women, adolescent girls and key populations with comprehensive HIV prevention services, including harm reduction by 2020.
4. Reduce the number of adolescent girls and young women aged 15–24 years old newly infected with HIV to below 100,000 per year.
5. Eliminate gender inequalities and gender-based abuse and violence.
6. End all forms of violence and discrimination against women and girls, such as gender-based, sexual, domestic and intimate partner violence, including in conflict, post-conflict and humanitarian settings.
7. Encourage and support the leadership of young people and scale up comprehensive education on sexual and reproductive health and protect their human rights.[19]

Listed below are the focus areas for the current review on the HIV and AIDS epidemic in the region:

- The indicators of HIV prevalence and incidence narrating the magnitude of the epidemic and the epidemic pattern prevalent in the respective countries in the region.
- The indicators on women and HIV providing the estimates of the epidemic and prevalence among women, and their vulnerability to HIV and AIDS.

- The indicators on higher risk and vulnerable groups assessing the vulnerability of HIV and AIDS among men who have sex with men, people who inject drug, and sex workers.
- The indicators on stigma and discrimination explaining the status of the policies in this regard and protecting the rights of individuals from stigma and discrimination.
- Laws and policies pertaining to people living with HIV seeking voluntary counselling and testing and anti-retroviral therapy.
- Use of Fast Track Targets to monitor progress in ending AIDS as a global threat with a narrowed focus on treatment cascade detailing the progress around HIV testing and counselling, treatment and viral load suppression.
- Linkages between SRH and HIV for optimal outcome and resource savings.

HIV Prevalence and Incidence in the 19 Countries Reviewed

There is an estimated 37.9 million (32.7 million – 44.0 million) people living with HIV globally in 2018.[20] Close to 18% of these persons, or 5.9 million (5.1 million – 7.1 million) live in the Asia and the Pacific region, making the region home to the second largest HIV burden after Africa.[21]

Mirroring the global trend, the Asia-Pacific region continues to make gains, but the gains are declining year-on-year. While there is an overall declining trend in the annual number of new HIV infections since 2010, the pace of decline has slowed down. The reduction in new HIV infections between 2010 and 2018 is 9%. This percentage was reported to be higher between 2010 and 2017 at 14%,[22] and 13% between 2010 and 2016.[23]

The trends observed also varied from country to country in the region. There is a mixed progress. The annual number of new HIV infections between 2010 and 2018 declined by more than 50% in Vietnam (64%), Cambodia (62%), Thailand (59%), Nepal (57%), and Sri Lanka (52%).[24] On the contrary, several countries including the Philippines, Pakistan and Bangladesh recorded an increasing trend during the same period, signalling the risk of the epidemic outpacing the response of these countries.[25] The increase in percentage of new HIV infections is highest in the Philippines in which the number of new HIV infections increased by 203% since year 2010,[26] making it the fastest growing HIV epidemic in the region.[27] Bangladesh and Pakistan recorded 56% and 57%, respectively.[28]

The region also made progress in reducing its AIDS-related deaths. The AIDS-related death decreased by 24% between 2010 and 2018, down from an estimated 270,000 deaths in 2010 to 200,000 deaths in 2018.[29] This reduction can be largely attributed to the overall improved availability of antiretroviral therapy in the region.[30] Country-wise (ICPD+25 countries for which data is available), between 2010 and 2018, eight countries observed a decline in AIDS-related death with Cambodia reporting the highest percentage (48%)[31] followed by Vietnam (45%),[32] Nepal (37%),[33] Thailand (32%),[34] Myanmar (30%),[35] Sri Lanka (6%),[36] Lao PDR (17%),[37] and Malaysia (9%).[38]

However, several countries in the region, including Pakistan and the Philippines, saw a dramatic increase of 369%[39] and 285%,[40] respectively during the same period. Bangladesh and Indonesia also recorded a steep increase at 110%[41] and 60%,[42] respectively. These four countries also reported poor treatment coverage ranging from a low 10% in Pakistan[43] to 17% in Indonesia,[44] followed by 22% in Bangladesh[45] and 44% in the Philippines,[46] in contrast to Cambodia and Vietnam which reported a much higher treatment coverage at 81%[47] and 65%,[48] respectively, among their people living with HIV. The magnitude of the national response in widening treatment coverage can be highly attributed to this stark contrast.

The impact of higher treatment coverage is also evident in the rapid reduction of AIDS related deaths among females even though 51% of people living with HIV globally are female.[49] The AIDS-related deaths among women is 27% lower among women and girls in 2016 than they are among men and boys owing to the higher treatment coverage and better treatment adherence among women.[50] However, for women of reproductive age, AIDS is the leading cause of death while for adolescents (10-19 years old), it is the second leading cause of death globally.[51, 52]

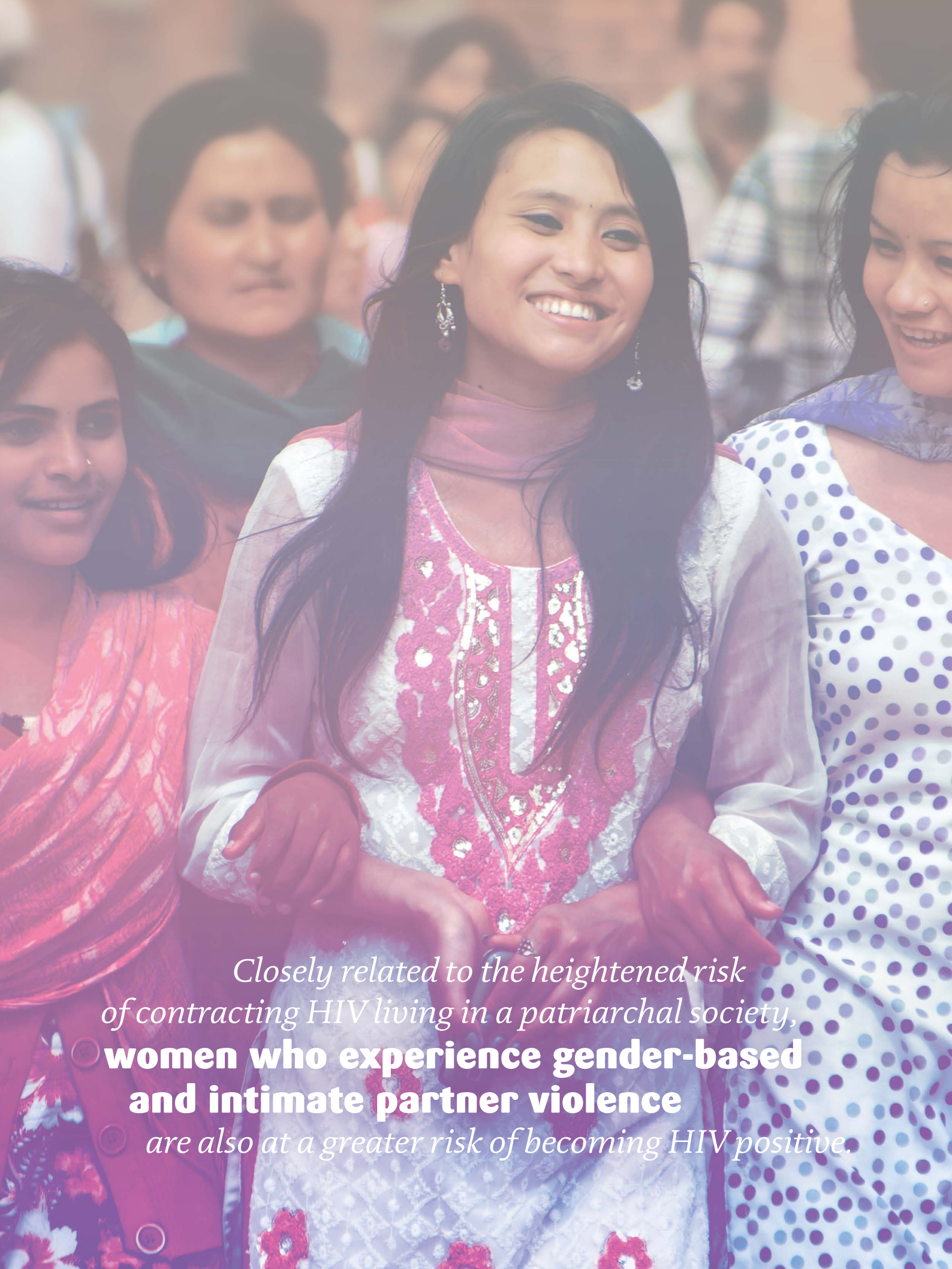
Almost all the countries have adopted and implemented a policy of treating every person living with HIV regardless of their CD4 cell count as recommended by the WHO at the national level. Overall, treatment coverage in the Asia and Pacific region increased from 37% in 2015 to 54% in 2018.[53]

TABLE 1: HIV AND AIDS ESTIMATES AND DATA (Year 2018, 2016, and 2000)

	Estimated HIV Prevalence Adult (15-49)			Number of HIV Infected Female Adults (Women Aged 15 and Over Living With HIV)			People Living With HIV 15+		
	2018	2016	2000	2018	2016	2000	2018	2016	2000
EAST ASIA									
China	—	—	—	—	—	—	—	—	—
Mongolia	< 0.1	< 0.1	< 0.1	< 200	< 100	< 100	< 1,000	< 500	< 100
SOUTH ASIA									
Bangladesh	<0.1	<0.1	< 0.	4,800	3,900	< 500	13,000	11,000	1,400
India	—	0.3	10.4	—	800,000	670,000	—	2,000,000	1,900,000
Maldives	—	—	—	—	—	—	—	—	—
Nepal	0.1	0.2	0.2	12,000	12,000	7,800	29,000	31,000	26,000
Pakistan	0.1	0.1	< 0.1	48,000	40,000	< 200	160,000	130,000	< 500
Sri Lanka	< 0.1	< 0.1	< 0.1	1,000	< 1,000	< 200	3,400	4,000	< 500
SOUTH EAST ASIA									
Cambodia	0.5	0.6	1.6	37,000	35,000	42,000	70,000	67,000	110,000
Indonesia	0.4	0.4	< 0.1	220,000	210,000	15,000	620,000	610,000	80,000
Lao PDR	0.3	0.3	< 0.1	5,000	4,900	< 1,000	11,000	11,000	1,700
Malaysia	0.4	0.4	0.7	15,000	13,000	3,600	87,000	96,000	100,000
Myanmar	0.8	0.8	0.8	87,000	81,000	45,000	230,000	220,000	190,000
Philippines	0.1	0.1	< 0.1	4,600	5,500	< 500	77,000	56,000	1,100
Thailand	1.1	1.1	1.8	210,000	200,000	220,000	480,000	440,000	670,000
Vietnam	0.3	0.4	0.2	74,000	78,000	19,000	220,000	240,000	110,000
PACIFIC									
Fiji	—	0.1	< 0.1	—	< 500	< 100	—	< 1,000	< 100
Papua New Guinea	0.8	0.9	0.7	25,000	25,000	< 12,000	42,000	42,000	22,000
Samoa	—	—	—	—	—	—	—	—	—

Source: UNAIDS, AIDSInfo.[54]

Between 2016 and 2018, only half of the key population in the region know their HIV status and this slows down the effort to ensure all people living with HIV are engaged in treatment for viral load suppression and prevention of onward transmission.



Closely related to the heightened risk of contracting HIV living in a patriarchal society, **women who experience gender-based and intimate partner violence** *are also at a greater risk of becoming HIV positive.*

Women and HIV

Epidemiological evidence suggests that women are disproportionately affected by HIV and AIDS globally. Earlier in the epidemic, HIV cases were predominantly among men, only 35% of the infected were women in 1985.[55] The infection among women increased since then. Globally, in the recent years, more than half of all adults living with HIV are women, with many of these women being at childbearing age.[56, 57] Similarly, of the total estimated new HIV infections among adults (15 and older) globally in 2018, 52% were among women with heightened differences between men and women at a younger age.[58]

Every week, there is at least 6,200 young women aged between 15 and 24 across the world acquiring HIV.[59] Also, as discussed in the previous section, AIDS is the leading cause of death among women of reproductive age (aged 15-44) and the second leading cause of death among adolescents aged between 10 and 19 years globally.[60]

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Feminisation of HIV happened as more women were being infected via heterosexual intercourse.[61] Earlier in 2000, it was estimated that more than 90% of the women living with HIV in Asia acquired HIV while in long-term relationships with their husbands or intimate partners.[62] The risk is higher for female partners of people who inject drugs, men who have sex with men, and clients of sex workers.[63] For example, in Myanmar, a 'knock-on effect' from the high proportion of female sex workers and their clients contracting HIV in the 1990s contributed to the increasing number of low risk women contracting HIV from their male partners.[64] A similar trend in new HIV infections was also noted among female intimate partners of people who inject drugs.[65] In some other countries, the proportion of female/male is observed to have shifted with increasing infections among females although an overall declining trend in new HIV cases is recorded. In Malaysia, the male/female ratio declined from 9.6 in 2000 to 5.5 in 2015 signalling an increase in infection among the females.[66] Heterosexual transmission was the primary route of transmission among these women in year 2014 (92%).[67]

Why and How Have Women and Young Girls Become the Primary Victims of the HIV Epidemic?

In addition to biological factors, women and adolescent girls are more vulnerable to acquiring HIV as they are faced with multiple inequalities not just culturally but also socially and economically.[68] Biologically, the likelihood for women contracting HIV during vaginal intercourse has been found to be higher than for men.[69]

The risk of HIV transmission during sex is increased by two-fold in male-to-female when compared to female-to-male transmission.[70] The larger surface area of the vagina compared to the penis, increased mucosal HIV exposure time, the potential for micro-abrasions and tears of the vagina or cervix, the higher concentration of HIV in semen than in vaginal fluids, and the ability of HIV to pass through the cells of the vaginal lining—are among the factors that explain this higher likelihood.[71] Also, adolescent women, whose reproductive systems are not fully developed are especially vulnerable to contracting HIV.[72] The immature genital tract is more likely to sustain tears during sexual intercourse, leading to higher risk of HIV transmission.[73]

Further to this, the denial of women's and girls' rights to protect their sexual and reproductive health and bodily autonomy remains the catalyst for this epidemic. Gender inequality in this form is the most pervasive form of inequality with direct implications in the risk of acquiring HIV among women.[74] From the cultural and social aspects, in most Asian countries, women's ability to negotiate safe sex in intimate partner relationships is severely compromised as a result of the patriarchal society that they live in.[75] Patriarchal society makes negotiating safe sex complex for women and in some cases, sex occurs without consent. The power struggle intensifies, and gender inequality becomes more evident leaving the women with almost no space in sexual decision making. For example, the HIV epidemic in Pakistan was increasingly transmitted to female spouses of men who have sex with men and injecting drug users who are HIV positive as these women did not have a say in their sexual relationship including negotiating condom use.[76] These women also reported not being aware of measures for preventing sexually transmitted infections,[77] signifying the role of HIV related knowledge in

heightening a woman's risk in contracting HIV. Similar to the findings in Pakistan, in Indonesia, wives of injecting drug users who acquired HIV from their husbands, reported that they had limited knowledge about HIV risk and transmission.[78] These women believed that they would not be infected as long as they are not part of the high risk groups such as the sex workers and people who inject drugs though their husbands injected drugs.

Closely related to the heightened risk of contracting HIV living in a patriarchal society, women who experience gender-based and intimate partner violence are also at a greater risk of becoming HIV positive.

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Globally, intimate partner violence is shown to heighten the risk of contracting HIV by approximately 50%.[79] Gender-based and intimate partner violence or the fear associated with it significantly reduces the ability of women to access sexual health and HIV services. According to UNAIDS, gender-based violence is the key driver in the HIV epidemic in which it increases HIV risk both directly and indirectly by limiting power to maintain healthy sexual relationships, refuse sex, negotiate condom use and through the impact of fear and trauma on help-seeking behaviours.[80] Several studies conducted in India suggest significantly higher reporting of HIV/STIs by women who experienced intimate partner violence and in some cases, the risk increased by four-fold among women who experienced both physical and sexual violence from their intimate partners compared to those who had experienced no violence.[81, 82]

Lack of access to sexual health and HIV services stemming from unaccommodating attitudes towards sex outside of marriage and restricted social autonomy of women and young girls also play a role in increasing the risk of HIV among women and young girls. In many of the settings, access to HIV prevention information and services are limited to married women while evidence show a substantial number of unmarried young adults engaging in sex before the age of 15 in the region. Approximately 8% of girls in South Asia are reported to have had sex before the age of 15 years.[83] Pre-marital sex is strongly disapproved based on religious and cultural grounds in most countries in the region resulting in limited access to sexual and reproductive health related information and services including preventive tools such as condoms among the young adults. A study that looked into sexual and reproductive health services among young people in Indonesia revealed that service providers are reluctant to provide sexual and reproductive health services to unmarried but sexually active young people as sex outside of marriage is unacceptable both religiously and culturally and is often referred to as 'free sex.'[84] In addition, the young people themselves are too ashamed or afraid to ask for help or to access the services due to this negative connotation to pre-marital sex. Other risk factors to acquiring HIV among women include lower education level, child marriage, economic dependence and poverty heightened risk behaviours such as transactional sex and substance abuse.[85]

Key Populations and HIV

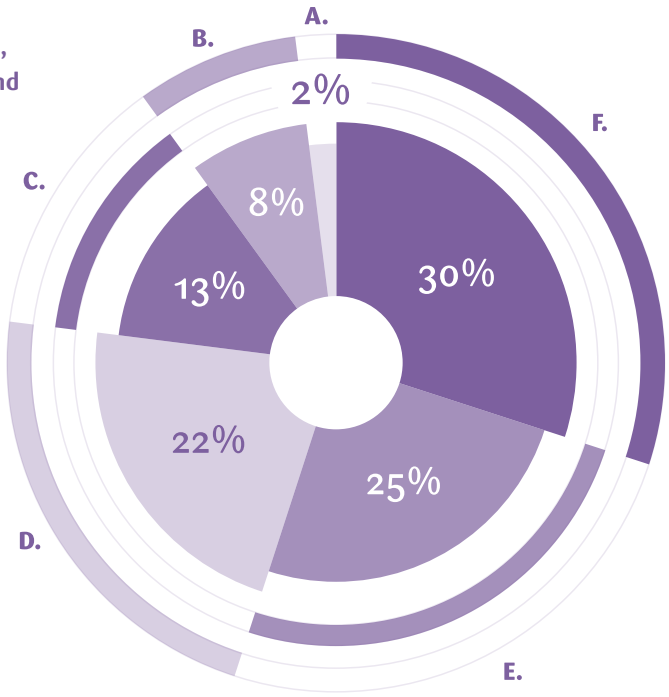
Key populations, mainly groups of people who are at an increased risk of HIV irrespective of epidemic type or local context are important in all epidemic settings.[86] The trend in global HIV acquisition shows that the risk of HIV acquisition among the key populations including men who have sex with men, sex workers, transgender people, and people who inject drugs and their sexual partners are extremely high despite them making up a small proportion of the general population.

Globally, in 2018, more than half of new HIV infections happened among key populations and their sexual partners.[87] The Asia and the Pacific region revealed a staggering percentage of 78% of new HIV infections among key populations and their sexual partners, and the number of new HIV infections are highest among gay men and other men who have sex with men (30%).[88] The epidemic in Asia and the Pacific continues to be predominantly concentrated among key populations, underlying the importance of not only reaching these groups with information and services, particularly those that are community-led activities but evidence also points towards the need for legal reforms to reduce the discrimination and marginalisation faced by these populations for an optimal impact on the epidemic.[89, 90]

Figure 1: DISTRIBUTION OF NEW HIV INFECTIONS, AGED 15–49 YEARS (By Population Group, Asia and the Pacific, 2018.)

A. Transgender Women
B. Sex Workers
C. Remaining Population
D. People Who Inject Drugs
E. Clients of Sex Workers and Sex Partners of Other Key Populations
F. Gay Men and Other Men Who Have Sex With Other Men

Source: UNAIDS, UNAIDS Data 2019.[91]



Low national HIV prevalence is reported to mask the much higher prevalence in specific populations and locations in the region.[92] Data from country reporting suggest that progress has been slow in reducing new infections and that rising epidemics are observed among key populations in some countries in the recent years.[93]

Overall, the practice of safe sex was low among men who have sex with men in several countries, as well as among people who inject drugs across the region.[94] The challenge is particularly evident in reaching out to young key populations.[95] Criminalisation and incarceration of key populations, stigma and discrimination (specifically in healthcare settings), lack of innovation in service delivery models, slow pace of introducing new technologies, and strong dependence on international financing for impactful prevention measures are among other challenges faced by the countries in advancing progress towards ending AIDS in the region.[96]

a. Addressing HIV Among Men Who Have Sex with Men

Across the globe, gay men and other men who have sex with men accounted for 17% of new infections worldwide while sex workers and people who inject drugs accounted only for 6% and 12% of new infections, respectively, in 2018.[97] In 2015, this group accounted for only 12% of total new HIV infections globally.[98]

Expanding HIV epidemic among men who have sex with men has become a common trend.[99] The risk of HIV acquisition among gay men and other men who have sex with men is reported to be, in 2018, 22 times higher compared to all adult male population.[100] As discussed in the above section, gay men and other men who have sex with men represent the largest share of new infections among key populations in the region at 30%.[101] With the rising rates of HIV among this group, this population is expected to contribute to nearly half of all new HIV infections in the region by 2030 if an impactful response is not delivered.[102, 103]

Data from country reporting suggest that progress has been slow in reducing new infections and that rising epidemics are observed among key populations in some countries in the recent years

At the country level, based on most recent data in the last decade, the HIV prevalence rate among men who have sex with men varied from a low 0.2% in Sri Lanka to a high 25.8% in Indonesia, 21.6% in Malaysia, 11.9% in Thailand, and 10.8% in Vietnam.[104] China, Thailand, and the Philippines, in particular, recorded a dramatic increase in new infections among men who have sex with men in the last decade.[105] Almost a ten-fold increase from 0.9% in 2003 to 7.7% in 2014 was recorded in China,

accounting for over 45% of its new HIV infections.[106] Men who have sex with men and transgender people accounted for 83% of newly reported HIV cases in the Philippines.[107] Similarly, in Thailand, HIV prevalence remains high and shows no signs of abating among the men who have sex with men population.[108] The rapid increase in HIV prevalence in Thailand and Malaysia is a concern for the region. In Thailand, the prevalence rate has increased by four-fold in 2015 since 2011 while in Malaysia, the prevalence rate is 2.5 times higher in 2017 compared to 2014.[109]

Cities and urban areas, in particular, recorded higher HIV prevalence. Cities including Bangkok (Thailand), Yangon (Myanmar) and Yogyakarta (Indonesia) have estimated HIV prevalence between 20% and 29%.[110]

Further to this, the role of men who have sex with men as the bridging population for HIV transmission for heterosexual women is becoming increasingly evident. A study among men who have sex with men in China showed a high level of bisexual partnership and low level of consistent condom use with females.[111] Similarly, a study in Pakistan showed that a substantive number of women contracted HIV from their HIV positive husbands who identified themselves as men who have sex with men.[112]

Overall, inconsistent practice of safe sex, lagging uptake of HIV testing and counselling services, and punitive laws are among the major contributing factors to the high prevalence rate among this population. A number of studies that investigated safe sex practice among men who have sex with men population in countries including India, Vietnam and Thailand revealed that approximately 45% to 80% of men who have sex with men reported inconsistent condom use.[113, 114, 115] Poor uptake of HIV testing among men who have sex with men is often attributed to stigma and discrimination related to being HIV positive and being a sexual minority.[116] Punitive law against this population further widens the gap in achieving progress towards ending AIDS. A total of 18 of the 38 member states in in the Asia and Pacific region continue to criminalise same-sex sexual activities.[117] While these countries practice penalties including imprisonment, corporal punishment, and even death, progress is being made in Fiji and India. Section 377 of the Indian Penal Code was annulled in India, and Fiji decriminalised sex between men.[118] Same-sex sexual activities remain prohibited legally in Bangladesh, Maldives, Pakistan, Sri Lanka, Malaysia, Myanmar, Papua New Guinea, and Samoa.[119] Also, despite the evidence that PrEP is an additional effective preventive method for HIV, the availability of this option remains limited in the region. Only two countries, namely Thailand and Vietnam have made PrEP available at a large or national scale to this group.[120] While countries such as Malaysia and the Philippines have increased the availability of PrEP through pilot initiatives in the recent years, PrEP is still not available to this group in Indonesia despite the alarming rate of infection among this group.[121]

While harm reduction services have been proven to be an effective response to the epidemic among people who inject drugs, the access remains largely uneven in the region.

b. People Who Inject Drugs

Globally, compared to the adults in the general population, people who inject drugs are 22 times more likely to acquire HIV.[122] One third of the world's population of people who inject drugs are in Asia and the Pacific[123] and constitutes 13% of HIV new infections in the region in 2018.[124] Based on most recent data that is available as of 2018, HIV prevalence rate among people who inject drugs in the region varies and is particularly high in the Philippines (29%) followed by Indonesia (28.8%), Pakistan (21%), Thailand (19.02%), Myanmar (19%), and Bangladesh (18.1%), all of which are part of the ARROW ICPD+25 countries under review.[125]

While harm reduction services have been proven to be an effective response to the epidemic among people who inject drugs, the access remains largely uneven in the region. The gains made in the last two decades are threatened by insufficient coverage of harm reduction services, particularly among people who inject drugs in this region signalling the risk for a resurgence of the epidemic.[126] According to the Global State of Harm Reduction in 2016,[127] out of the 19 reviewed countries (for which information is available), 11 countries provide harm reduction services including needle and syringe exchange programme and opiate substitution therapy. The countries include China, Bangladesh, India, Pakistan, Nepal, Thailand, Myanmar, Cambodia, Vietnam, Malaysia and Indonesia.[128] The access and coverage in some of these countries, however, are still low and

very few of them have been noted to have expanded their programmes in the recent years.[129] The hostile and punitive environment to drug use further contributes to this situation. In the Philippines, closure of harm reduction programmes coupled with the extrajudicial killing of people who use drugs prevented people from accessing this much needed service.[130] In contrast, Malaysia, Cambodia and India have high coverage of needle and syringe exchange services.[131, 132] Malaysia particularly has successfully reduced the HIV prevalence among its people who inject drugs by providing harm reduction services at scale in the country.[133] The coverage of the same service remains extremely limited in Thailand and Indonesia.[134]

Factors Hampering Access to HIV and Harm Reduction Services Among People Who Inject Drugs Particularly Women Who Inject Drugs

There are several factors that hamper progress of ending AIDS among people who inject drugs in the region including legislative and policy barriers to harm reduction, high level of stigma and discrimination, police harassment, fear of incarceration, judgmental health personnel, overlap between sex work and injecting drug use, limited government capacity and infrastructure to develop, disproportionately low allocation of national AIDS budget for HIV prevention and harm reduction, and absence or limited availability of research surveillance and M&E data for planning, implementation and scaling-up.[135, 136]

These factors are sharply amplified for women who comprise the minority of people who inject drugs in most countries and experience significantly higher levels of stigma and discrimination than their male counterparts, leading to a disproportionately heightened vulnerability in acquiring HIV.[137, 138] Women who inject drugs are among the most vulnerable to HIV through drug use, violence and unprotected sex.[139, 140] Women who inject drugs with experience of sexual violence are more likely to be living with HIV than other women who inject drugs.[141] Gender- and sex-based stigma and discrimination make harms associated with drug use substantially greater for women.[142] Their vulnerability to HIV is heightened by issues specific to women including concomitant sex work, sexually transmitted infections, viral hepatitis, mental health problems, reproductive health issues, child care, violence and lack of access to health services including for HIV prevention, treatment and care.[143]

Despite these evidences, HIV services among this group of population highly vulnerable to HIV remain disconnected, indicating a protection gap.[144] For these reasons, they remain as a hard-to-reach population even with the existence of harm reduction programmes in their countries.[145] Many engage in sex work to not only finance their own drug habit but also their partner's, whereby a significant amount of control is exerted by their partner over their sex work, safe sex and injection practices.[146] Intimate partner and domestic violence, incarceration, domestic intrusions including women being removed from their home and losing child custody and criminalisation of sex work are also women specific factors that hamper their access to HIV prevention, treatment and care services.[147]

Overall, women's higher mortality rates, increased likelihood of facing injection-related problems, faster progression from first use to dependence and risky injection and/or sexual risk behaviours warrant a particular focus on injecting women globally.[148]

c. Sex Workers

Sex workers, particularly female sex workers, remain a critical group in the HIV transmission dynamics across the globe from the very beginning of the HIV epidemic.[149, 150] Sex workers are 21 times more likely to acquire HIV than adults aged 15-49 years while female sex workers are 13.5 times more likely to be living with HIV than other women of reproductive age.[151, 152] This figure is greater in the Asia region whereby there is an almost 30-fold increase in the likelihood of female sex workers living with HIV.[153]

In 2018, sex workers made up 6% of new HIV infections globally and a slightly higher percentage of 8% at the Asia and Pacific level.[154] Based on most recent data that is available as of 2018, the HIV prevalence among female sex workers is the highest in Papua New Guinea (17.8%) followed by Malaysia (6.3%), Myanmar (5.6%) and Indonesia (5.3%).[155]

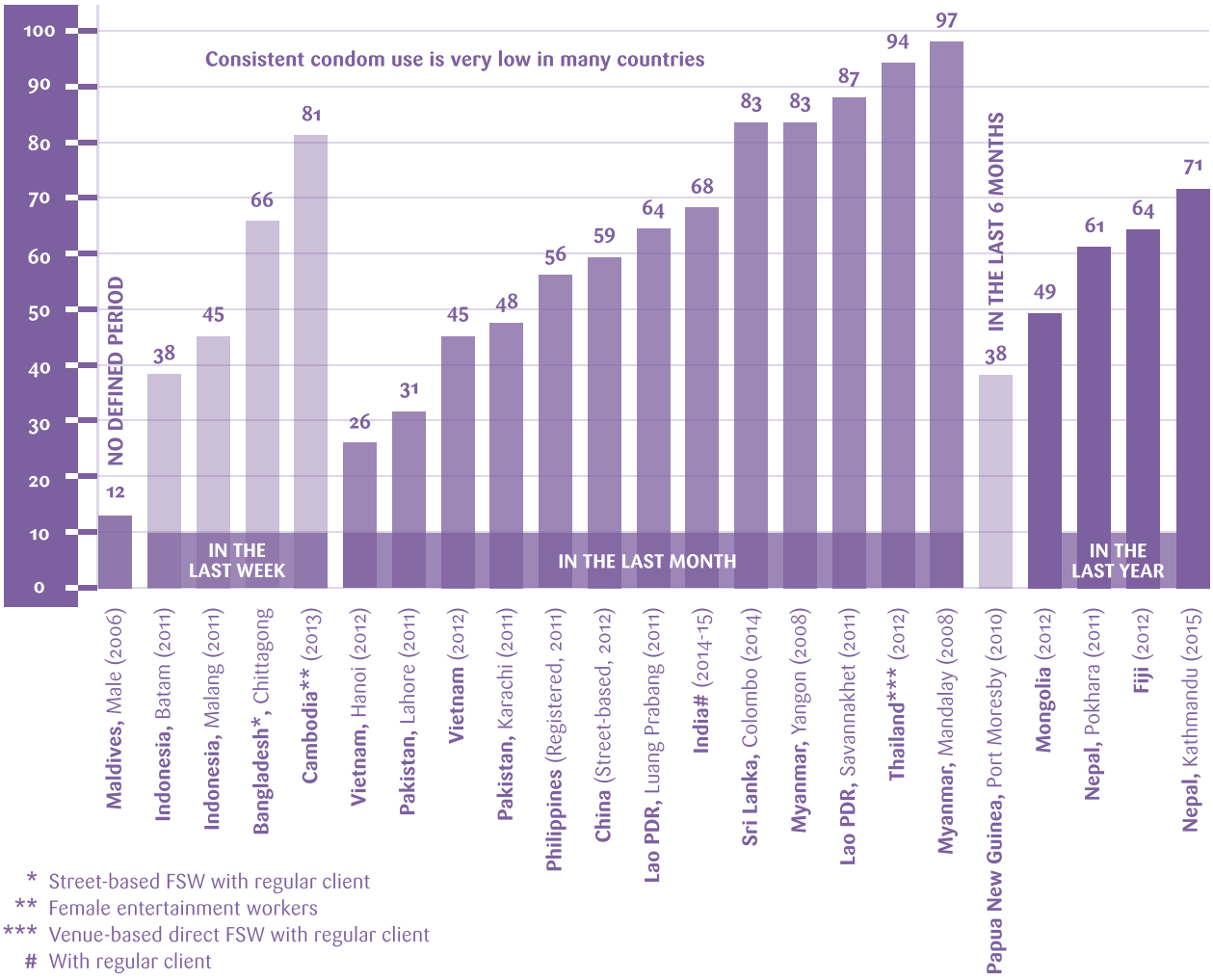
What Makes Female Sex Workers More Vulnerable?

Female sex workers are faced with multiple risk factors and majority of them remain underserved by the global HIV response.[156] Given that the environment and context that they live in typically does not allow them to be in control of the risk factors, they find accessing prevention, treatment and care services even more

challenging.[157] A study among female sex workers in India revealed that they are at a heightened risk of contracting HIV as a direct result of high incidence of gender-based violence with the respondents reporting intense physical and sexual violence and coercion from not only their clients but also from their male partners and pimps.[158] They are disproportionately affected by social, legal, and economic injustices stemming from stigma, discrimination and criminalisation in the societies they live in. Closely linked to the stigmatisation of female sex workers is the notion that their "very existence challenges the standard family and reproduction-oriented sexual morality found in most societies."[159]

Other risk factors that they are faced with include but are not limited to behavioural factors such as high number and turnover of sex partners, low levels of consistent condom use, and injecting drug use, biological factors such as untreated sexually transmitted infections and high levels of STI prevalence, and low level of HIV related knowledge.[160, 161] Consistent condom use is observed to be low in many countries in the region. Almost 50% of the countries reviewed under the ICPD+25 reported inconsistent condom use under 50% with Maldives (Malé) reporting the lowest at 12%, followed by Vietnam (Hanoi) at 26%, and Pakistan (Lahore) at 31%.[162]

FIGURE 2: CONSISTENT CONDOM USE AMONG FEMALE SEX WORKERS IN THE ASIA-PACIFIC REGION (2002-2015).



* Street-based FSW with regular client
** Female entertainment workers
*** Venue-based direct FSW with regular client
\# With regular client

Source: UNAIDS, UNAIDS Data 2017.[163]

In the region, violence among female sex workers is highest in Myanmar, Fiji and Nepal while proportion of female sex workers who have been forced to have sex is highest in Myanmar, Pakistan, India and Nepal.[164] Also, in Cambodia, almost half of the female sex workers engaged in a study in the country reported violence in the past twelve months.[165] The study revealed that female sex workers who experienced sexual violence also reported lower level of condom use. Prior exposure to physical violence influenced subsequent sexual risk taking among these groups of sex workers. Similarly, another study conducted among female sex workers in Nepal showed the probability of non-use of condoms with clients increased substantially for each additional adverse physical, social and economic condition.[166] The findings of a study in Bellary, India further lends support to this by revealing that anti-violence programme in Bellary between 2006-2008 had significantly reduced violence from 35% to just 9% and that this reduction has a direct impact on condom use which could avert further 5% of new HIV infections among not only the female sex workers but also among their clients over the next 10 years.[167] Almost all countries under the ICPD+25 project have punitive laws that either criminalise soliciting or sex work in private, further hindering the HIV response for the female sex workers in the region.[168, 169]

TABLE 2: HIV PREVALENCE AMONG KEY POPULATIONS (Most Recent Data as of 2018)

	HIV Prevalence Among Men Who Have Sex With Men		HIV Prevalence Among People Who Inject Drugs		HIV Prevalence Among Female Sex Workers	
EAST ASIA						
China	7.8%	National HIV Sentinel Surveillance 2016	5.9%	National HIV Sentinel Surveillance 2015	0.19%	National HIV Sentinel Surveillance 2015
Mongolia	9.2%	HIV/STI Surveillance Survey, 2017	—	—	0.0%	Preliminary Result of HIV/STU Survey Report, 2017
SOUTH ASIA						
Bangladesh	0.2%	National HIV Sentinel Surveillance 2016	18.1%	National HIV Sentinel Surveillance 2015	0.2%	National HIV Sentinel Surveillance 2015
India	2.7%	HIV Sentinel Surveillance, 2016-17	6.3%	HIV Sentinel Surveillance, 2016-17	1.6%	HIV Sentinel Surveillance, 2016-17
Maldives	—	—	—	—	—	—
Nepal	2.4%	IBBS among MSM and TG in Kathmandu Valley, 2015	6.4%	IBBS, 2015	2.2%	IBBS Survey among FSWs in Kathmandu Valley, 2017
Pakistan	3.7%	IBBS Surveillance 2016-17	21%	IBBS Surveillance 2016-17	3.8%	IBBS Surveillance 2016-17
Sri Lanka	0.2%	IBBS Survey 2018	—	—	0.3%	IBBS Survey 2018
SOUTH EAST ASIA						
Cambodia	2.3%	IBBS Survey 2015	15.2%	IBBS Survey 2017	2.3%	IBBS Survey 2016
Indonesia	25.8%	IBBS Survey 2015	28.8%	IBBS Survey 2015	5.3%	IBBS Survey 2015

	HIV Prevalence Among Men Who Have Sex With Men		HIV Prevalence Among People Who Inject Drugs		HIV Prevalence Among Female Sex Workers	
Lao PDR	1.6%	IBBS Survey 2014	—	—	—	—
Malaysia	21.6%	Behavioural Surveillance Survey, 2017	13.54%	IBBS Survey 2017	6.3%	Behavioural Surveillance Survey, 2017
Myanmar	6.4%	HIV Sero Sentinel Surveillance 2018	19%	HIV Sero Sentinel Surveillance 2018	5.6%	HIV Sero Sentinel Surveillance 2018
Philippines	4.9%	Integrated HIV Behavioural and Serologic Surveillance, 2015	29%	Integrated HIV Behavioural and Serologic Surveillance, 2015	0.4%	Integrated HIV Behavioural and Serologic Surveillance, 2015
Thailand	11.9%	IBBS Survey 2018	19.02%	IBBS Survey 2018	0.7%	IBBS Survey 2018
Vietnam	10.8%	HSS 2018	11%	Sentinel Surveillance 2016	3.6%	HSS 2018
PACIFIC						
Fiji	0.5%	Who We Are: An Exploration of the Sexual Practices and HIV Transmission Risks of MSM and TG Population in Fiji, 2015	—	—	0.7%	IBBS and Size Estimation of SW in Fiji, 2014
Papua New Guinea	—	—	—	—	17.8%	GARPR 2013
Samoa	0.5%	Outreach Registers from all NGO's and the Ministry of Health's HIV/STI Outreach Programmes	—	—	0.0%	Sentinel Surveillance 2018

Source: UNAIDS, AIDSInfo.[170]

The epidemic in Asia and the Pacific continues to be predominantly concentrated among key populations, underlying the importance of not only reaching these groups with information and services, particularly those that are community-led activities but evidence also points towards the need for legal reforms to reduce the discrimination and marginalisation faced by these populations for an optimal impact on the epidemic.

Stigma and Discrimination

Despite the collective progress towards ending AIDS as a global threat, stigma, discrimination and marginalisation of key populations and people living with HIV are still prevalent, which continue to deter women and girls, young people and key populations from optimising HIV prevention, treatment and care services in the region. Globally, there are research-based evidence pointing towards the positive link between HIV-related stigma and delayed HIV testing and counselling, non-disclosure to partners and poor engagement with HIV services including poor adherence to treatment.[171]

Stigma, discrimination, human rights violations and other exclusions resulting from power imbalances and unequal gender relations heighten the challenge in realising the ICPD PoA vision regarding prevention and treatment of sexually transmitted disease and HIV. ICPD PoA envisions vulnerable people including women and young people accessing treatment and care services without fear of stigmatisation, discrimination, or violence through necessary measures including government policies and guidelines that uphold non-discriminatory values and practices.[172]

Evidence of stigma and discrimination are reported in many studies, demonstrating that the direct experience of stigma and discrimination can be far more pervasive than just perceived. Stigma and discrimination have a huge impact on vulnerable communities especially on women and girls who are often slapped with prejudice and discrimination in their daily lives. Research findings indicate that at least 80% of the people living with HIV in the region reported discriminatory experiences in different sectors of the society with healthcare being the major sector followed by community, family, and the workplace.[173] The study found women to be significantly more likely than men to experience HIV-related discrimination within their family and community including ridicule and harassment, physical assault, and being forced to change their residence as a result of their HIV status.[174]

Similarly, the People Living with HIV Stigma Index for Asia Pacific revealed that HIV-related stigma negatively impacts the lives of people living with HIV in the region.[175] Results of this study conducted in nine countries within the region showed almost a third of the respondents reporting not being able to adequately access healthcare. A third of the respondents avoided going to clinics or hospital despite requiring care. In terms of health care providers, while some health care providers did not discriminate, a significant 3% to 29% were not supportive and many health care providers (37%-90%) did not have constructive discussions with health care professionals regarding HIV-related treatment options.[176] Stigma and discrimination have also seeped into women's rights in their reproductive decision with advice on pregnancy avoidance and abortion becoming a common practice for the health care providers when a women is diagnosed with HIV.[177]

At least 80% of the people living with HIV in the region reported discriminatory experiences in different sectors of the society with healthcare being the major sector followed by community, family, and the workplace.

Apart from direct experience of stigma and discrimination, majority of people living with HIV in the Pacific also reported fairly high levels of self-stigma resulting in their own self-exclusion socially and from health services, education, or employment.[178] More women than men reported experiencing self-stigma feelings related to guilt, shame, and suicide. A similar pattern can also be seen among respondents in a study conducted in Papua New Guinea whereby nearly half of the respondents blamed themselves for their HIV status, felt ashamed and guilty, thus, causing them to avoid social gatherings.[179] Other depriving decisions taken because of their HIV status include deciding not to marry, not to have children, to stop work, and to avoid treatment. This study also noted that living with HIV in the country means significant personal risks as almost 70% of the research respondents reported that they had been physically assaulted as a result of their HIV status. Incidences of different types of stigma and discrimination such as these remain high, and particularly among those people living with HIV who also engage in sex work, injecting drug use and same-sex relationship in many other countries in the region.[180, 181, 182]

Laws and Policies Pertaining to People Living with HIV/ AIDS (PLHIV)

Between 2012 and 2016, twelve out of the nineteen countries reviewed under ICPD+25 have removed or revised a number of punitive laws, policies and practices pertaining to HIV, attesting to the region's progress in improving the outcomes around HIV treatment and prevention.[183, 184] There are a number of international instruments in the region guiding governments to review and address legal and policy barriers in order to advance implementation of their obligations in accordance to the international human rights law.

Seven out of the 19 countries have non-discriminatory laws against people living with HIV.[185] These countries include Bangladesh, India, Sri Lanka, Indonesia, Myanmar, Philippines, and Fiji which do not have any form of restriction on entry, stay and residence on the basis that one's HIV status and HIV transmission or exposure are also not criminalised in these seven countries.[186]

Country Progress for a More Enabling Legal Environment

This section covers the progress in removing or revising punitive laws, policies and practices pertaining to HIV among the countries in the region. Fiji, along with China and Mongolia strengthened protection for people living with HIV by lifting HIV-related restrictions on entry, stay and residence.[187] Thailand enacted its first gender equality law, the Gender Equality Act of 2015, to serve as protection against discrimination on the grounds of gender expression.[188] A Committee for Ruling on Gender Discrimination Cases was established under this act to navigate solutions to discrimination related complaints in the country. Fiji and Nepal showed progress in the area of sexual orientation and gender identity, whereby Fiji decriminalised sex between men while Nepal strengthened rights to protection for lesbian, gay, bisexual, and transgender people.[189, 190] Similarly, India and Pakistan progressed to formally recognise transgender as a third gender.[191] In the area of sex work, Vietnam ended its compulsory detention of sex workers and Cambodia embraced sex workers rights using labour rights and public health approach, instead of criminalisation. In relation to ending AIDS, the Philippines, Indonesia, Malaysia and Thailand made strides, with Philippines introducing anti-discrimination ordinances to achieve zero discrimination while the rest issued compulsory licenses to increase access to affordable antiretroviral medicines in the country.[192, 193] The Discrimination Ordinance in the Philippines protects people living with HIV from discrimination on the grounds of health status, sexual orientation, gender identity and/or gender expression.[194] The Philippines Commission on Human Rights developed a Plan of Action including the strengthening of redress mechanism for HIV-related discrimination and hate crimes being one of its three priority areas.[195]

Challenges still prevail regardless of the strides made. Just as in the case of stigma and discrimination, the remaining punitive laws continue to challenge progress towards ending AIDS across the region. While it is noted that all countries under the ICPD+25 review have committed to addressing discrimination, some countries including China, Bangladesh, Pakistan, India, Sri Lanka, Malaysia, and Myanmar still do not have comprehensive enforceable national laws against discrimination on the grounds of HIV status in key areas including healthcare, education and employment.[196]

There is evidence of slower progress in countries where punitive legal environment prevail.[197] Despite some countries showing advancement and legislative change, progress particularly in the reform of criminal laws that negatively influence the access of key populations to HIV services is inconsistent and slow (i.e. removal of penal code provisions relating to sex work, drug use, and same-sex sexual conduct).[198] In fact, all countries still have traces of laws, policies and practices that are holding progress back.[199] Protective legal environment is imperative in facilitating reduced stigma, discrimination and violence which in turn improves the engagement of vulnerable populations especially key affected women and girls in HIV prevention and treatment services.[200] Gaps in legal and policy protections for key affected women and girls have been noted in some of the countries in the Asia and the Pacific region.[201] Legal and policy priorities relevant for protecting the rights of women and girls around inheritance rights, lack of access to post-exposure prophylaxis for rape survivors, stigma and discrimination in healthcare settings, especially for women living with HIV and women who use drugs, and failure of health care services to address the sexual and reproductive health needs of women and girls living with HIV require further strengthening.[202]

In terms of sex work, especially the ones conducted in private, remains criminalised in at least 18 out of the 38 countries in the Asia and the Pacific region, out of which 10 are under the ICPD+25 review countries. These countries include China and Mongolia in East Asia, Pakistan and Maldives in South Asia, and Lao PDR, Myanmar, Philippines, Thailand and Vietnam in South-East Asia, as well as Papua New Guinea in the Pacific.[203]

Sex between men is still criminalised in eight countries, including Bangladesh, Maldives, Pakistan, and Sri Lanka in South Asia, and Malaysia, and Myanmar in South-East Asia, as well as Papua New Guinea and Samoa in the Pacific.[204] Mongolia, Cambodia, Lao PDR, Vietnam and Papua New Guinea reported to specifically criminalise HIV transmission or exposure.[205]

Ending AIDS in Asia and the Pacific Region: 90-90-90, the Fast Track Strategy - How FAST, How Close Are We?

MEMBER STATES WERE CALLED UPON TO INTENSIFY EFFORTS TO END AIDS USING THE FAST TRACK TARGETS AS GUIDANCE:

By 2020, **90%** of all people living with HIV will know their HIV status

By 2020, **90%** of all people living with diagnosed HIV infection will receive sustained antiretroviral therapy

By 2020, **90%** of all people receiving antiretroviral therapy will have viral suppression

Source: UNAIDS Data 2019.[206]

Across the globe, the HIV story is focused around the 90-90-90 strategy introduced by UNAIDS to mobilise national and global response to bring the AIDS epidemic to an end. The main idea of this strategy is to identify as many people as possible with HIV early in their infection and link them to treatment and care services to prevent onward transmission of HIV through suppressed viral load, creating a positive impact on HIV incidence at a population level. So, how well are the countries in Asia and the Pacific region progressing in realising this goal?

Vietnam was the first Asian country to officially adopt the Fast Track targets.[207] The region has progressively delivered innovative and sustainable interventions especially around creating awareness and improving knowledge on HIV as well as widening testing, prevention and treatment coverage. National Strategic Plans are being strengthened to streamline these efforts in many countries. Malaysia has strengthened its second National Strategic Plan 2016-2030 by incorporating Fast Track Targets as its core strategy to realise the ending AIDS goal in the country.

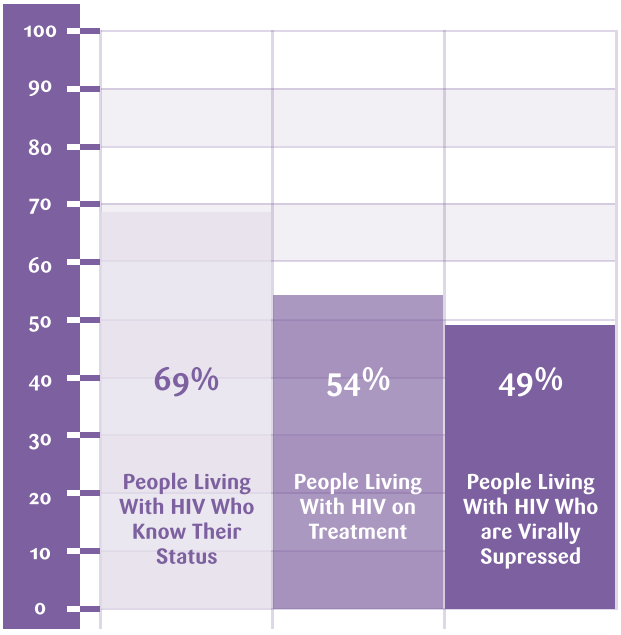
In terms of HIV financing, domestic resources for HIV programming doubled in the past decade from US$1.4 billion to US$ 2.8 billion.[208] China, India, Malaysia and Thailand demonstrated the most commitment whereby almost 100% of their HIV responses were channelled directly from their domestic purse.[209]In Malaysia, for example, majority of its domestic AIDS expenditure was spent on treatment in line with the Treat All policy by WHO.[210] On the other hand, some countries, especially Indonesia remains significantly below the funding needed for an impactful response despite doubling its domestic resources in 2018 compared to year 2010.[211]

In contrast to the increased domestic funding, the region experienced a reduction in its international funding. Although the United States bilateral resources increased by 2%, the resources channelled through Global Fund and all other international channels decreased by 38% and 10%, respectively.[212] Given the recent change in the funding landscape, the region still requires an increase of approximately 40% in HIV resources to achieve the 2020 Fast-Track targets.[213]

In 2015, WHO revised its treatment guideline by recommending antiretroviral treatment initiation for all people living with HIV regardless of their CD4 count upon diagnosis.[214] All 19 of the ICPD+25 countries

reviewed adopted the highly recommended 'Treat All' policy.[215] Earlier in 2017, only fourteen countries adopted this policy among adults and adolescents.[216] However, in terms of implementation, all countries except Indonesia, have implemented the 'Treat All' policy nationwide (>95% treatment sites).[217] In Indonesia, this policy is not implemented while in Bangladesh, the 'Treat All' policy is only practised between 50-95% treatment sites.[218]

FIGURE 3: HIV TESTING AND TREATMENT CASCADE IN ASIA AND THE PACIFIC (2018)



Source: UNAIDS, UNAIDS Data 2019.[219]

Realising the important role of HIV testing and the need to reach out to larger proportion of people living with HIV especially the key populations who do not have ready access to testing services, countries in the region appear to be exploring the much recommended community-based/lay provider testing as an effective complementing service delivery model, expanding HIV testing and counselling beyond facility-based testing in the last decade.

HIV Testing and Treatment Cascade: Monitoring the First 90 - HIV Testing

The HIV treatment cascade, also known as the HIV care cascade, illustrates key transitions in the HIV service continuum and is an important tool used by countries to monitor the fast track targets focused primarily on coverage of critical HIV services – HIV testing, antiretroviral treatment, and viral load suppression.

The first stage of the cascade, which is the first 90 indicator, monitors the percentage of HIV cases detected. HIV screening is provided free-of-charge in government health facilities in Southeast Asia to scale up accessibility and in return increase uptake of HIV services.[220] HIV testing and counselling which serve as an entry point to HIV treatment and care services, are indispensable in maximising the impact of the response as these services ensure that all people living with HIV PLHIV) are identified and engaged in timely life-saving antiretroviral therapy.

In Asia and the Pacific region, the proportion of people who knew their HIV status improved from 58% in 2015 to 69% in 2018.[221] Thailand is the only country in the region which has achieved the first 90 indicator on percentage of people living with HIV who know their HIV status (94%).[222] Thailand is somewhat closely followed by Papua New Guinea (87%), Malaysia (86%), Lao PDR (85%) and Cambodia (82%).[223] Data for China, India, Maldives, Sri Lanka, Myanmar, Vietnam, Fiji and Samoa were not available.[224] Earlier in 2014, India, Myanmar and Thailand reported to have had tested more women than men, attributing the gender differences to routine HIV testing offered to pregnant mothers as part of initiatives to eliminate mother-to-child HIV transmission.[225] Pregnant women made up 94%, 74% and 62% of women screened for HIV in Myanmar, Thailand, and India, respectively.[226] Nepal and Indonesia reported much lower rates at only 28% of pregnant mothers in Nepal and 43% in Indonesia comprising all women who tested for HIV.[227]

Realising the important role of HIV testing and the need to reach out to larger proportion of people living with HIV especially the key populations who do not have ready access to testing services, upon observation, countries in the region appear to be exploring the much recommended community-based/lay provider testing

Despite the scale up and innovative approach, the testing rate among the key populations is noted to be low in the region. More than half of the key populations living with HIV in this region do not know their HIV status.

as an effective complementing service delivery model, expanding HIV testing and counselling beyond facility-based testing in the last decade. In 2017, out of the 19 countries reviewed under the ICPD+25, at least fourteen countries including Bangladesh, Cambodia, China, India, Lao PDR, Malaysia, Myanmar, Nepal, Pakistan, Papua New Guinea, Philippines, Samoa, Sri Lanka, and Vietnam offer community-based/lay-provider testing.[228] Updates for Maldives and Thailand were not available. Thailand, impressively, removed parental consent as a legal barrier to facilitate young people's access to HIV testing and counselling.[229] China, Lao, Vietnam and the Philippines have also advanced to practising self-testing within their communities.[230] The Malaysian government recently adopted a community-based HIV testing in 2016, accrediting community-based outreach workers from selected NGOs to provide rapid HIV testing in the community.[231] The Ministry of Health of Malaysia works closely with the NGOs to establish a sustainable referral link between the NGOs and government-based facilities to ensure each test is accompanied by confirmatory testing and referral to treatment where necessary. The requirement on confirmatory testing through the drawing of blood was previously a barrier for expanding testing services beyond facility-based testing in Malaysia.[232] In Cambodia, the number of key populations doubled in 2014 after the introduction of a community-based testing model using rapid HIV finger prick in 2012.[233]

Despite the scale up and innovative approach, the testing rate among the key populations is noted to be low in the region. More than half of the key populations living with HIV in this region do not know their HIV status between 2016 and 2018.[234] In 2015, only half of the female sex workers in Asia and the Pacific region were aware of their HIV status and when compared to the general adult female population, this group of high risk women were less likely to access HIV treatment.[235] The sketchy coverage of prevention, treatment and care services across the region, including in Bangladesh, Malaysia, Pakistan, the Philippines and Sri Lanka contributes to the low knowledge level of HIV status among the key populations in the region.[236] Also, there are shortcomings in the existing national guidelines or practice in rolling out HIV testing and counselling initiatives with mandatory HIV testing for marriage, work or residence permits or for certain groups still existing in many countries including China, Indonesia, Lao PDR, Malaysia, Mongolia, Myanmar, Pakistan, Papua New Guinea and Samoa.[237] This is especially prevalent in the injecting drug use and migrant workers contexts.[238] Data for Fiji, Maldives and Vietnam were not available.[239]

Despite the wider coverage of antiretroviral treatment, monitoring of the second 90 in the HIV treatment cascade in Asia and the Pacific region shows mixed progress in ensuring people living with HIV are effectively engaged in treatment.

The Second 90: Treatment

The Fast Track commits to ensure that 30 million people living with HIV are on treatment by 2020, breaking down to some 4.1 million young people and adults (aged 15 and older) in Asia and the Pacific.[240] The estimated proportion of people living with HIV receiving antiretroviral treatment increased from 37% in 2015 to 54% in 2018.[241]

Despite the wider coverage of antiretroviral treatment, monitoring of the second 90 in the HIV treatment cascade in Asia and the Pacific region shows mixed progress in ensuring people living with HIV are effectively engaged in treatment.[242] Also, in some circumstances, data is not available to inform percentage of people not returning for confirmatory test and treatment initiation.[243]

Zooming into 90-90-90 country scorecards, in 2018, only two of the 19 ICPD+25 countries achieved the second 90 indicator on percentage of people living with HIV who know their status and who are on treatment. More than 95% of people living with HIV who know their status in Cambodia and Samoa are on treatment.[244] This is closely followed by Mongolia (86%), China (83%), and Thailand (80%). In most of the remaining countries, including Bangladesh, Pakistan, Lao PDR, Malaysia and the Philippines, at least a quarter of people living with HIV

who know their status were not engaged in treatment.[245] Cambodia attributes its success to the country's move in increasing the number of treatment sites and expanding treatment services to closed settings.[246] Samoa, on the other hand, has a low number of people living with HIV in its country; there were only 11 people living in HIV in 2017.[247] This number could be higher given the low HIV testing rate (4-5%) in the country. A lower coverage rate of less than 50% is observed in Indonesia. Indonesia faces the challenge of its own National Social Protection Scheme for Health (JKN) which denies access to treatment for people who use drugs. The country's health policy does not support treatment related to self-inflicted diseases, particularly those related to illegal drug use and alcoholism.[248] Data for Maldives, Sri Lanka, Myanmar, Vietnam and Fiji were not available.

Late presentation is also a challenge in the region. A study conducted in Bangladesh, Indonesia, Lao PDR, Nepal, Pakistan, Philippines and Vietnam showed a high proportion of late presenters (40-51%) contributing to delayed linkage to treatment and care in all seven countries.[249] Good patient-healthcare provider communication, high HIV treatment literacy, a referral from health worker were among the factors associated with higher likelihood of treatment initiation and better adherence while the negative factors include young age, belonging to key population, illiteracy, rural residence and fear of confidentiality breach. Lowered drug cost and highly effective antiretroviral treatment are among the other crucial technology related factors that are predicted to be the game changers influencing the volume of people living with HIV to engage in treatment with the available resources.[250]

Third 90: Viral Load Suppression

In the region, about 2.9 million of the total 5.9 million people living with HIV are virally supressed.[251] This also means that only almost half of all people living with HIV (49%) are virally suppressed,[252] indicating a missed opportunity in preventing onward transmission and AIDS related death as a result of gaps in the first two stages of the HIV testing and treatment cascade.

However, a mixed response is observed at the country level. More than 90% of people living with HIV are virally suppressed in Thailand (>95%), Cambodia (95%), China (94%), and Myanmar (92%).[253] Less than one third of people living with HIV on treatment are virally suppressed in Samoa (31%).[254] Data for Bangladesh, India, Pakistan, Nepal, Maldives, Vietnam, Malaysia, Indonesia, Philippines, Fiji and Papua New Guinea were not available.

The HIV cascade, in short, is a continuum of care, thus, poor performance at one step will have a carried forward impact on the next step while progress at any single step will only have a minimal impact on the overall goal of the cascade.

Lack of availability and frequency of viral load testing in the region resulting from the high cost associated with the testing is reported to be an ongoing impediment to measuring viral load suppression in the region.[255] Furthermore, viral load suppression is heavily determined by high levels of retention and strong adherence. In Vietnam, retention or loss to follow up is an identified challenge in achieving viral load suppression as many patients are lost at various stages of the treatment cascade.[256] Countries like Myanmar and Malaysia have ensured that their new National Strategic Plan focuses on the linkages between the different stages of the cascade to increase retention.[257]

The HIV cascade, in short, is a continuum of care, thus, poor performance at one step will have a carried forward impact on the next step while progress at any single step will only have a minimal impact on the overall goal of the cascade.[258] Progress in all three steps of the HIV cascade is vital. Uptake and retention must be scaled up at all three steps particularly with a focus on increasing access to combination prevention services among the key populations in settings with a high burden of HIV infection for a maximised impact on the end goal of ending the AIDS epidemic in the region. Currently, access to combination prevention services including pre-exposure prophylaxis as an additional prevention method still ranges from poor (less than 50%) to almost non-existent in Bangladesh, Cambodia, Lao PDR, Malaysia, Myanmar, Nepal, Pakistan, the Philippines, Sri Lanka, Thailand and Vietnam.[259] Coverage was noted to be particularly high in Cambodia as opposed to Pakistan which has almost non-existent coverage of HIV prevention services.[260]

TABLE 3: 90–90–90 COUNTRY SCORECARD (2018)

	First 90	Second 90	Third 90
	Percentage of People Living With HIV Who Know Their HIV Status	Percentage of People Living With HIV Who Know Their HIV Status and are on Treatment	Percentage of People Living With HIV on Treatment Who Have Suppressed Viral Loads
EAST ASIA			
China	—	83	94
Mongolia	38	86	79
SOUTH ASIA			
Bangladesh	37	60	—
India	—	—	—
Maldives	—	—	—
Nepal	71	79	—
Pakistan	14	69	—
Sri Lanka	—	—	84
SOUTH EAST ASIA			
Cambodia	82	> 95	95
Indonesia	51	33	
Lao PDR	85	64	87
Malaysia	86	55	—
Myanmar	—	—	92
Philippines	76	57	—
Thailand	94	80	> 95
Vietnam	—	—	—
PACIFIC			
Fiji	—	—	—
Papua New Guinea	87	75	
Samoa		> 95	31

Source: UNAIDS, UNAIDS Data 2019. [261]

SRH and HIV Integration and Linkages

An improved health system as an outcome of strong synergies between HIV and SRH strategies is indisputable. Integration and linkages in SRH and HIV offer great potential to improve access to antenatal, delivery and postnatal care, improve access to PMTCT services, reduce unintended pregnancy especially among female sex workers, provide treatment of STIs, provide counselling and legal support, and reduce the duplication of efforts and competition for resources that are already scarce.[262]

While the importance of the integration and linkages at legal/policy, health systems and service delivery levels is widely recognised, overall progress in linking SRH and HIV at the national levels has not been sufficient.[263] Organised effort is lacking at the national level in incorporating integration as part of the planning process.[264] In fact, the international commitments for integration of HIV and SRH such as the Glion Call to Action (2014), Political Declaration on HIV/AIDS (2016), Maputo Plan of Action (2006), and Guilin Framework (2007) in the region are not effectively reflected in the country level strategies.[265] Policies, national laws and guidelines that are essential to support the integration is not available in most of the countries resulting in inadequate resources including appropriate staffing, procurement and supply, and laboratory services crucial for an effective integration.[266]

Separate and uncoordinated SRH and HIV policies and programmes resulting from vertical structures, moreover, are apparent and this often challenges the provision of comprehensive SRHR services for women, in particular.[267] A study that mapped the linkages between HIV and SRHR strategies in 60 countries across the globe found consistent lower scores on each SRHR linking

component when compared to HIV with less engagement of HIV experts in SRHR issues and greater rights-based advocacy within the HIV-response calling for inclusion of SRHR in the region.[268] Siloed responses are more evident in the areas of STI (STI targets are found to be lacking in SRHR strategies), condom use as a multipurpose prevention tool (condoms for HIV prevention vs. condoms for family planning), gender-based violence (HIV strategies lacked focus in gender-based violence), and HIV testing and counselling (SRHR strategies lacked emphasis on testing). Papua New Guinea, Bangladesh, Cambodia, China, India, Indonesia, Maldives, Myanmar, Nepal, Pakistan, the Philippines, Sri Lanka and Vietnam are amongst the countries analysed in this study.

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Progress, though small, are observed in some of the countries in the region. The Philippines demonstrated initiative at policy level by including HIV related strategies within the proposed bill on reproductive health.[269] The Pacific is also making progress, particularly in Papua New Guinea and Fiji. Nine health clinics in Papua New Guinea, under a pilot programme, link and integrate a range of HIV and SRH services including ANC, family planning, VCCT, HIV, STI diagnostics and treatment, with HIV management and care, including ART.[270] Key organisations training health workers in Fiji, including the Fiji School of Medicine and the Fiji School of Nursing, strive to produce healthcare workers who are able to address both SRH and HIV related needs of their people through courses and projects.[271]

Initiatives for integration by non-governmental organisations and at intervention level are also observed in countries such as Cambodia, Myanmar, China and India. In Cambodia, SRHR clinics provide integrated services including condom provision and antiretroviral therapy for people living with HIV through the Reproductive Health Association of Cambodia's initiative supported by the International Planned Parenthood Federation.[272] In India, India HIV/AIDS Alliance supports Child Survival India to deliver integrated services including STI, condom use, menstrual hygiene, prevention of mother-to-child transmission and provision of family planning information to people living with HIV and sex workers.[273] Similarly, organisations working primarily on delivering HIV services such as the Targeted Outreach Programme (TOP) in Myanmar and Lily Women's Wellness Centre in China have expanded their services to include SRH services to sex workers as an integrated approach to improve their sexual and reproductive health.[274]

Just as in the case of Bangladesh and Myanmar, India's latest National Strategic Plan for HIV/AIDS and STI 2017 – 2024 also recognises the importance of integrating HIV/AIDS and SRH services in the country.[275, 276] The National AIDS Control Programme (NACP) and Reproductive and Child Health programme (RCH) of the National Rural Health Mission (NRHM) work at many different levels to facilitate the provision of STI/RTI care services to prevent HIV transmission and promote sexual and reproductive health.[277] The Designated STI/RTI Clinics that combine HIV and reproductive services are an example of such initiative.[278]

Cambodia has a national framework on the integration of HIV/AIDS and SRH services. HIV and SRH services are integrated into the Minimum Package of Activities – primary health care services package provided at the health centre level and the Complimentary Package of Activities – in-patient and out-patient services package provided at referral hospitals.[279] Though Indonesia does not have a national SRH and HIV integration policy, it has a separate national strategy for HIV and SRH which includes both HIV and SRH components.[280] Indonesia also has integrated supply systems for SRH and HIV.

Sri Lanka progressed to the third phase of HIV and SRH integration in terms of policy and operational strategy.[281] Maldives, on the other hand, is in the process of integrating prevention of mother-to-child transmission into reproductive health services.[282] To conclude, a strengthened health system with a full capacity of delivering integrated SRH and HIV through the public health system can be achieved when HIV and SRH resources are integrated at different levels.

Protective legal environment **is imperative in facilitating reduced stigma, discrimination and violence** *which in turn improves the engagement of vulnerable populations especially key affected women and girls in HIV prevention and treatment services.*

STI

The Global Health Sector Strategy on Sexually Transmitted Infections (STIs) (2016-2021) is centred on ending the STI epidemic as a public health problem,[283] and is fully aligned with the 2030 Agenda for Sustainable Development. Sharing a similar goal as the Ending AIDS strategy, the Global Health Sector Strategy on STIs (2016-2021) aims for zero new infections, deaths, and discrimination. The strategy is adopted by the World Health Assembly in 2016 and the 2015 United Nations Global Strategy for Women's, Children's and Adolescents' Health, further providing a framework for an accelerated response to reduce new STI infections and STI related deaths (including still birth and cervical cancer), as well as to enhance individual health, particularly sexual and reproductive health in its attempt to realise international development goals at the global level.[284, 285]

Further to this, when implemented effectively, the Global Health Sector Strategy on STIs (2016-2021) holds great potential for contributing to the ICPD PoA recommendation, which urges governments "to prevent, reduce the incidence of, and provide treatment for, sexually transmitted diseases, including HIV/AIDS, and the complications of sexually transmitted diseases such as infertility, with special attention given to girls and women."[286] Recognising that women face greater vulnerabilities due to STIs and as a result are disproportionately affected by the incidences, the PoA envisions that "effective prevention of sexually transmitted diseases..., should become integral components of all reproductive and sexual health services."[287] The PoA also recommends that "[a]ll health-care providers, including all family-planning providers, should be given specialised training in the prevention and detection of, and counselling on, sexually transmitted diseases."

Furthermore, the efforts and commitment a country puts into STI control at the national level is imperative in contributing towards the progress of achieving multiple Sustainable Development Goals (SDGs) including SDG3.2 - to reduce child and neonatal mortality, SDG3.3 - to end the epidemics of AIDS and other communicable diseases, SDG3.4 - to reduce noncommunicable diseases, and to improve mental health, SDG3.7 - to ensure universal access to sexual and reproductive health care services and SDG3.8 - to achieve universal health coverage.[288] In fact, inclusion of effective STI control is crucial in ensuring comprehensive sexual and reproductive health.

Why is STI a Global Public Health Concern?

STIs know no limits. STIS are among the most widespread and harmful infectious diseases on the surface of earth.[289] Most of the STIs show no symptoms or only mild symptoms that may not be identified as an STI until more complex health issues are developed. According to the WHO, there are more than 1 million STIs transmitted every day across the globe.[290] With a considerably high level of global burden, the STI epidemic severely impacts the health and lives of children, adolescents and adults.[291, 292, 293] There are at least 30 different sexually transmissible bacteria, viruses and parasites.[294] The main mode of transmission is sexual intercourse, however, STIs are also transmissible from mother to foetus and neonate during pregnancy and childbirth, as well as through blood and blood products.[295]

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Evidence show that STIs lead to complications leaving a profound impact on sexual and reproductive health, particularly among women. The complications include infertility, ectopic pregnancy, infection being transmitted to the foetus and infant causing congenital syphilis, pneumonia, blindness, and low birth weight, and permanent damage to organs and tissues, and serious generalised infections as well as death.[296] STIs are also documented for increasing HIV infectiousness and susceptibility as it facilitates transmission and acquisition of HIV.[297] There are also evidence supporting the role of STIs in causing certain types of cancers, particularly infection with the human papillomavirus (HPV), which is a proven precondition for the development of carcinoma of the cervix, the second leading cause of female cancer mortality worldwide.[298, 299]

IMPACT OF STI ON THE HEALTH AND LIVES OF CHILDREN, ADOLESCENTS, AND ADULTS

Feotal and Neonatal Deaths	Cervical Cancer	Infertility
Syphilis in pregnancy leads to over 300,000 foetal and neonatal deaths each year, and places an additional 215,000 infants at increased risk of early death;	The human papillomavirus infection is responsible for an estimated 530,000 cases of cervical cancer and 264,000 cervical cancer deaths each year;	Sexually transmitted infections, such as gonorrhoea and chlamydia, are important causes of infertility worldwide;

HIV Risk	
The presence of a sexually transmitted infection, such as syphilis, gonorrhoea, or herpes simplex virus infection, greatly increases the risk of acquiring or transmitting HIV infection (by two to three times, in some populations);	**The physical, psychological and social consequences of sexually transmitted infections severely compromise the quality of life of those infected.**

Source: WHO, Global Health Sector Strategy on Sexually Transmitted Infections 2016–2021.[300]

The STI epidemic showed an overall decline in the estimated number of new STI cases between year 2008 and 2016 at the global level.[301, 302] WHO estimated that in 2008, there were 499 million new cases of curable STIs among those aged 15-49 years and this estimated figure decreased to 376 million new cases in 2016.[303, 304] These STIs include the four common curable STIs that contribute to majority of STI-related morbidity and mortality globally; Chlamydia trachomatis, Neisseria gonorrhoeae, Syphilis, and Trichomonas vaginalis.[305, 306] However, in the recent years, the number of cases have been stagnant except for slow reductions in congenital syphilis.[307]

Similarly, the number of estimated cases involving viral STIs is high at 417 million cases of herpes simplex virus infection and 291 million cases of HPV infections among women.[308] Viral STIs are incurable. The number of cases involving Chancroid and Lumphogranuloma venereum has significantly declined and nearly disappeared in many other countries globally.[309]

In the South-East Asia region, the number of new cases for the curable STIs was 78.5 million with Trichomonas vaginalis recording the highest number of cases at 42.9 million followed by Gonorrhoeae at 25.4 million, Chlamydia trachomatis at 7.2 million and Syphilis at 3 million cases in 2012.[310]

TABLE 4: GLOBAL ESTIMATES OF NEW CASES OF CURABLE STIs IN 2008, 2012, and 2016

	Number of Cases (in Millions)		
	2008	2012	2016
Chlamydia Trachomatis	106	131	127
Neisseria Gonorrhoeae	106	78	87
Syphilis	11	6	6
Trichomonas Vaginalis	276	142	156
TOTAL	499	357	376

Source:
WHO, Report on Global Sexually Transmitted Infection Surveillance 2018; WHO, Report on Global Sexually Transmitted Infection Surveillance 2015; WHO, Global Incidence and Prevalence of Selected Curable Sexually Transmitted Infections – 2008.[311]

Chlamydia and Gonorrhoeae, when untreated, cause pelvic inflammatory disease up to 40% of women with these STIs.[312] In addition, at least one in four of these women will become infertile.[313]Women with untreated Chlamydia and Gonorrhoeae are also at heightened risk for ectopic pregnancy. They are six to ten times more likely to develop ectopic pregnancy, further putting their life at risk and experiencing foetal loss.[314] Across the globe, untreated Gonorrhoeae and Chlamydial infection is estimated to cause blindness in approximately 4,000 newborn babies.[315]

Syphilis, on the other hand, have a 25% probability of stillbirth and 14% probability of neonatal death when left untreated.[316] Congenital syphilis, in particular, is reported to be a global health problem with low coverage of testing and treatment in many countries.[317] According to WHO, over 300,000 foetal and neonatal deaths happen each year and an additional 215,000 infants are exposed to increased risk of early death as a result of syphilis during pregnancy.[318] Further to this, babies born with syphilis experience low birth weight and develop further health problems including deafness, blindness and seizure when not treated.[319]

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In terms of numbers, the highest rates for syphilis were reported in the Western Pacific region (93 cases per 100,000 adult population) followed by the African region in 2014.[320] Based on the countries for which data is available (see Table 5), a disproportionately high rate of syphilis was noted in Mongolia at 323.6 cases per 100,000 adults, followed by Papua New Guinea and China at 88.2 and 39.4 cases, respectively between 2012 and 2014.[321] The rest recorded less than 10 cases per 100,000 adults. Overall the rates were significantly higher among females compared to males in the Western Pacific Region with 81 and 55 cases per 100,000 adult population among females and males, respectively.[322] Recognising the importance of monitoring syphilis during pregnancy in women, almost all 19 ICPD+25 countries under review have made efforts to monitor testing rates with Papua New Guinea reporting the highest rate of mothers who are positive for syphilis at 5.4% in 2018.[323] This was followed by Mongolia at 2.0% and Indonesia at 1.42% in 2018 while the rest recorded rates below 1% between years 2009-2018.[324] Data was not available for Nepal and Pakistan.[325]

TABLE 5: SYPHILIS RATES (Cases per 100, 000 Adults) BASED ON MOST RECENTLY REPORTED GLOBAL AIDS RESPONSE PROGRESS REPORTING (GARPR) SYSTEM DATA, 2012–2014*

	2014		
	Total Rate	Female	Male
WESTERN PACIFIC			
China	39.4	42.4	36.6
Mongolia	323.6	417.5	222.7
Malaysia	7.4	10.6	4.4
Papua New Guinea	88.2	119.5	57.6
SOUTH-EAST ASIA			
Indonesia	4.8	4.2	5.3
Myanmar	6.0	5.7	6.4
Sri Lanka	9.3	6.2	12.7
Thailand	5.7	4.5	7.0

Source:
WHO, Report on Global Sexually Transmitted Infection Surveillance 2015.[326]

National Response to Control STI

HIV prevention and STI control efforts are often carried out independently although HIV is considered an STI and the predominant mode of transmission for both HIV and STI is sexual transmission.[327] According to the epidemiologists, HIV epidemic will not develop rapidly if the STI control is strong. Rapidly growing HIV epidemics have been halted and even reversed in contexts where STI control measures have been scaled-up.[328] A similar pattern is noted in the HIV and STI epidemics in South Asia and South-East Asia where the HIV epidemics have largely followed the trend of STI. Based on the 19 ICPD+25 countries under review, most of the STI interventions are carried out through the HIV/AIDS programmes in which efforts are also more focused on the key populations. The latest national policy in Samoa and India is a joint HIV, AIDS and STI national policy covering period 2017-2022 and 2017-2024, respectively, to effectively coordinate a multi-sectoral response to both epidemics.[329] Nepal and Bangladesh were among the first few to endorse a similar policy, in 1995 and 1997, respectively, in South Asia.[330, 331]

India's current National Strategic Plan for HIV/AIDS and STI builds on the effort and success of the previous strategic plan which facilitated a scaled up national response since the early 2000s leading to a reduction of syphilis and other bacterial STIs through expanded treatment of STI syndromes below the district level.[332] Syndromic management of STIs was introduced and further expansion of STI/RTI services happened through some 1,160 Designated STI/RTI Clinics.[333] The national response is also focused on the key populations through targeted interventions in which the private sector is engaged through non-governmental partners to provide STI services for the at risk groups.[334] However, India still faces challenges in managing cervical cancer caused by vaccine preventable STI.[335]

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The Mongolian Government once saw high STI numbers when STI infection cases made up almost half of its communicable diseases in the country in 2005.[336] To ensure a continued response in controlling the epidemic, Mongolia's latest National Strategic Plan on HIV, AIDS and STIs (2015-2020) focuses on strengthening the linkage between the 100% condom use programme and STI programme as well as on establishing a better monitoring system that assesses the use of condoms instead of condom availability, particularly among male STI clients.[337] STI services in Mongolia are provided through public and private facilities. Women can access STI services in antenatal care clinics. Whereas in China, in response to the resurgence of syphilis in some part of its country, the National Programme for Prevention and Control of Syphilis was implemented in 2010 with the aim of bringing down the number of primary and secondary Syphilis and Congenital Syphilis cases to less than 15 Syphilis cases per 100,000 live births by 2020.[338]

While Vietnam and Cambodia integrated HIV prevention with STI as recommended by the Guilin Framework, Fiji's national strategic plan is working towards the same direction for a maximised outcome.[339] Some countries also designed innovative approaches to advance their national response to the STI epidemic. Malaysia attests to this with the introduction and implementation of STI Friendly Clinics in close partnership with non-governmental organisations to increase the number of key populations accessing STI services throughout the nation.[340] Focused on testing and management of both STIs and HIV, government healthcare providers are trained and sensitised to provide services to key populations regardless of their sexual orientation, sex and gender identities. The key populations are usually referred through prevention programmes implemented by non-governmental organisations throughout the country. Similarly, Indonesia has increased the coverage of STI screening among its key populations.[341] Indonesia has over a thousand service delivery sites that provide regular STI screenings to the marginalised groups. Lao PDR's National Action Plan (2011-2015) also focused national efforts on reducing STIs cases among key populations, in order to see a reduction in the prevalence of Chlamydia/Gonorrhoea among sex workers, men who have sex with men, as well as men with multiple partners.[342] The action plan aimed for 94 districts to have at least one quality-assured site for STI treatment.

Overall

Majority of the countries reviewed have their STI prevention and treatment efforts under the umbrella of HIV which focuses more on high-risk groups. This may have an adverse effect on the larger population who are at risk of HIV but is not part of the key population and as such, fall through the gaps not being prioritised for prevention and treatment. More countries should include STI prevention and treatment efforts and strategies that target all populations at risk of acquiring STI.

Recommendations

Overall, a people-centred, evidence-informed and human rights-based combination HIV prevention approach with a focus on intensifying the current pace of decline in new HIV infections by testing more people for HIV, linking those who are tested positive to treatment as well as retaining them in treatment is the recommended way forward for an accelerated response to the HIV epidemic in this region.[343]

- The combination package of services is recommended to include behavioural, biomedical, and structural components catered to the needs of different population groups within their specific local contexts.[344]

- For young people including young women and adolescent girls and their male partners, particularly those in high prevalence areas, the prevention approach should include a combination of comprehensive sexuality education and access to sexual and reproductive health services without economic or structural barriers such as prohibitive costs and parental consent laws, respectively.

- For key populations, community mobilisation and empowerment should be prioritised, particularly to reduce stigma and discrimination including in the health-care setting. HIV testing and counselling, PrEP, easy and quick access to condoms and lubricants and comprehensive harm reduction services such as the needle and syringe exchange programme and opioid substitution therapy and access to antiretroviral treatment should be included in the comprehensive package.[345]

- For the combination approach to be effective, legal and policy barriers, gender equality, and stigma and discrimination must be addressed while the overall health systems and social protection systems need to be strengthened.[346]

- Anti-discrimination policy around HIV needs to be introduced as part of an enabling policy environment.

- Additional efforts to decriminalise same-sex relationships, sex work, cross-dressing, and drug possession for personal consumptions are equally important for an enabling environment for HIV prevention.[347]

- Legislation, law enforcement, and programmes addressing intimate partner violence should be strengthened.[348]

- Third party authorisation requirements that serve as a barrier to women and young people's access to sexual and reproductive health services must be removed.[349]

- Domestic resource mobilisation has to be increased to ensure the 90-90-90 Fast Track target is in full force.

- STI and HIV need to be included in the Universal Health Package.

In Asia and the Pacific region, the proportion of people who knew their HIV status improved from **58%** *in 2015 to* **69%** *in 2018*

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