

Editorial

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A Silent Surge of Human Immunodeficiency Virus Infection among Sri Lanka's Youth

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Key points:

- Recent evidence indicates a concerning upward trend in HIV cases among Sri Lankan youth, particularly with a male predominance.
- Since 2019, male-to-male transmission has become the leading mode of HIV transmission in Sri Lanka. Given that anal sex carries the highest risk for HIV transmission, it's pivotal to direct targeted preventive measures toward men who have sex with men (MSM) within the 15-24-year age group.
- Evidence highlights that the knowledge and attitudes toward HIV among those in the 15–24-year age group, including married females and female sex workers (FSW) are sub-optimal.
- It's imperative that sexual health and wellness is promoted across both females and males in the 15–24-year age group to maintain the status of low incidence and prevalence of HIV and eliminated mother-to-child transmission (EMTCT). To achieve meaningful impact, tailored social and behaviour change communication programmes should be employed to address stigma, increase awareness and encourage safer practices.

In the wake of the COVID-19 pandemic, Sri Lanka now seems to be facing yet another serious health challenge affecting our youth. There has been a sharp rise in the cases infected with Human Immunodeficiency Virus (HIV) among young people aged 15 to 24. This growing issue now calls for urgent action from public health authorities.

According to the National Sexually Transmitted Diseases/ Acquired Immunodeficiency Syndrome (STD/AIDS) Control Programme, HIV cases among

youth have increased alarmingly, with 99 males and 12 females aged 15–24 years diagnosed in 2024 alone (1). This marks a disturbing trend, especially considering that the fourth quarter of 2024 recorded the highest number of HIV cases in a single quarter since 2009. Several studies carried out elsewhere in the world have shown disruption of HIV care services due to the COVID-19 pandemic (2,3).

This rise in Sri Lanka may be attributable to a

combination of factors, including but not limited to reduced access to clinic-based testing and treatment care during the pandemic, increased risky sexual behaviour, and a lack of comprehensive sex education. This editorial seeks to raise awareness, challenge stigma, and call for a strengthened national response that prioritises youth education coupled with age-appropriate interventions, accessible testing, and community engagement. The time to act is now, before this silent surge becomes a generational crisis.

Epidemiology of HIV

Global Burden of HIV

According to the Global Burden of Diseases study 2021, global new HIV infections declined by 21.9% (95% uncertainty interval: 13.1% to 28.8%) between 2010 and 2021, falling from an estimated 2.11 million (range: 2.02 to 2.25 million) in 2010 to 1.65 million (1.48 to 1.82 million) in 2021. HIV-related deaths saw an even greater reduction of 39.7% (33.7% to 44.5%), decreasing from 1.19 million (1.07 to 1.37 million) to 718,000 (669,000 to 785,000) over the same period. The most substantial declines in both HIV incidence and mortality were observed in sub-Saharan Africa and South Asia (4). From 1990 to 2021, the age-standardised incidence rate (ASIR) of HIV also showed a downward trend with an estimated annual percent change (EAPC) of 0.14% (95% Uncertainty interval: 0.12%-0.16%) (5).

Sri Lankan situation with a Special Emphasis on the Youth

Out of all the South Asian countries, Sri Lanka is considered to have a very low prevalence of HIV. [6] As of the end of 2023, an estimated 4,700 people in Sri Lanka were living with HIV, with an uncertainty range between 4,400 and 4,900. Cumulatively, since 1987, a total of 5,705 people have been diagnosed with HIV, of whom 1,553 have died, leaving 4,151 known to be alive. This means that 88% of those living with HIV are aware of their status. Similar to previous years, the gender distribution of HIV infections in 2023 was male predominant (88% in males, and 12% in

females while there were two transgender individuals (7).

Comparatively, in 2024, it was estimated that around 5,700 people were living with HIV in Sri Lanka, with an uncertainty range between 4,900 and 6,500 (1). Fewer than 500 individuals were newly infected during the year, and fewer than 200 died from AIDS-related illnesses. Among adults aged 15 to 49, HIV prevalence remained under 0.1%, making it a low-level epidemic, though still a serious concern for public health.

As shown in Figure 1, the data reported to the National STD/HIV control programme of Sri Lanka reveal a distinct and concerning upward trajectory in HIV incidence among individuals aged 15 to 24. Reported cases in that age group surged from just 13 in 2010 to 105 and 111 in 2023 and 2024, respectively (1,7). The most pronounced increase was observed among males aged 20 to 24, who accounted for 83 cases in 2023 alone. Although males aged 15 to 19 and females aged 20 to 24 also exhibited rising numbers, their growth rates were comparatively moderate. In contrast, the trend among females aged 15 to 19 remained relatively stable, showing only minor year-to-year fluctuations (7).

According to the 2023 Annual report of the National STD/AIDS Control programme, among People living with HIV (PLHIV), 81% (3,358 individuals) are receiving antiretroviral treatment (ART), and of those on treatment, 86% have achieved viral suppression which is defined as having fewer than 1,000 copies of the virus per millilitre of blood (7).

Transmission and Risk Factors

HIV was first reported in Sri Lanka in 1987, with the first indigenous case transmission reported in 1989. During the early stages of the HIV epidemic, sexual transmission primarily occurred through homosexual and bisexual contact. However, at the beginning of the third millennium, it has become evident that heterosexual transmission was the dominant mode of HIV spread in Sri Lanka. [8] Between 2019 and 2023, male-to-male sexual contact emerged as the leading mode of transmission, rising from 46% to 55% over the period. Heterosexual transmission, while still

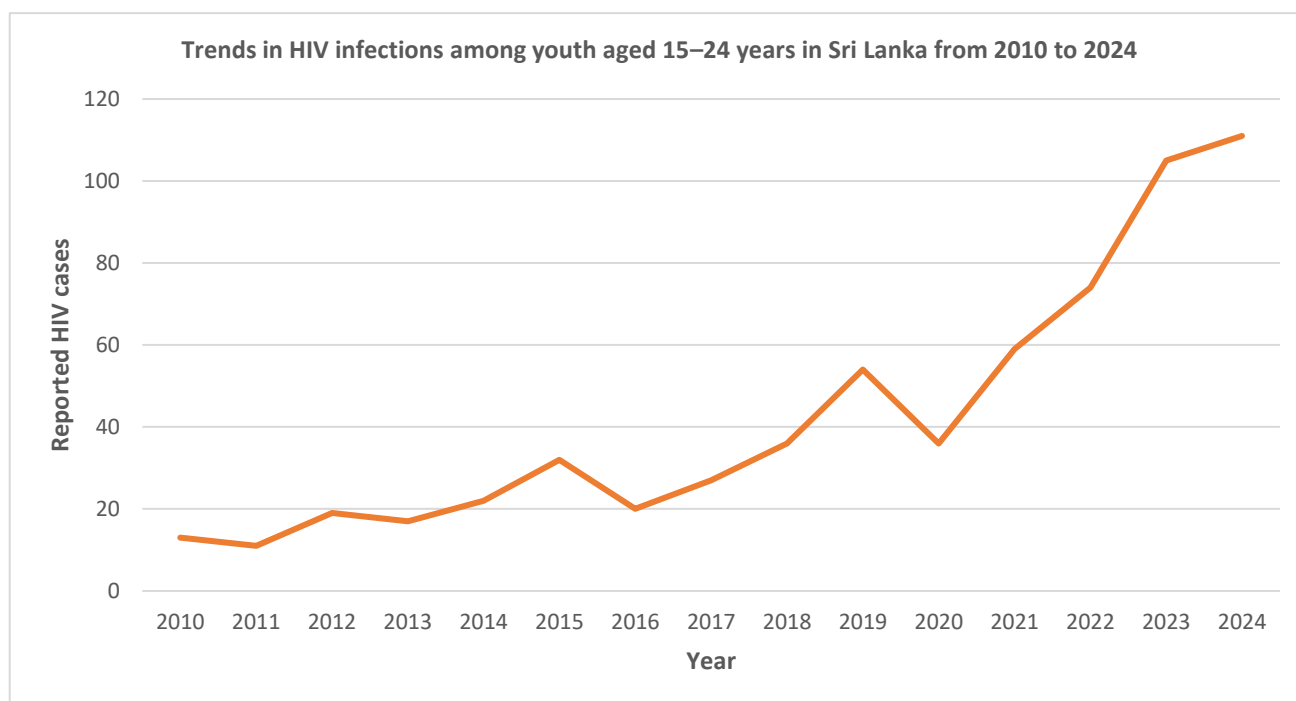


Figure 1: Trends in HIV infections among youth aged 15-24 years in Sri Lanka from the year 2010 to 2024

notable, demonstrated a downward trend, declining from 40% in 2019 to 27% in 2023. Mother-to-child transmission (MTCT) remained minimal and stable in Sri Lanka, consistently registering at 1% or below. Similarly, transmission through injection drug use (IDU) remained negligible between 0–1% until 2023, when it increased to 2% (7,9).

Despite being categorised as a low-prevalence country, the prevailing behavioural and social risk factors create a volatile environment comparable to sitting on a time bomb, where HIV among youth and the rest of the key populations and vulnerable general population is considered in Sri Lanka. If not intervened soon, a range of biological, social, and behavioural factors prevailing in the society could potentially ignite a catastrophic situation with staggering numbers of HIV cases in Sri Lanka. These include condomless anal and vaginal sex, casual sexual encounters with frequent partner changes, transactional sex, and a thriving yet masked sex industry. The expanding networks of men who have sex with men (MSM), increased domestic and international travel, and pervasive media influence further contribute to the risk environment. Intensifying these factors are other harmful practices such as substance use during sexual activity and injecting illicit drugs with shared needles. The presence of other sexually

transmitted infections (STIs), limited access to diagnostic and treatment services, widespread stigma and discrimination, poverty, and low educational attainment are contributory factors and root causes that increase the vulnerability of youth as well as other segments of the general public to infection with HIV (10, 11).

A study conducted in 2008 on HIV awareness among the adults in the general public in Kandy found that participants had limited knowledge about HIV. Although attitudes were generally satisfactory, there was a high level of stigma, particularly relating to shame and blame (12). A study on STI/HIV vulnerability among out-of-school youth attending vocational training centres in Vavuniya and Kilinochchi Districts revealed that only one in four participants demonstrated adequate knowledge, while just 11% exhibited attitudes aligned with safe sexual health practices (13). Similarly, the demographic and health survey, 2016 revealed that only 24% of married women in the age group 15-24 years exhibited adequate knowledge on HIV (11,14). Another study revealed that use of internet, and social networking media to find sexual partners was significantly higher among those infected with HIV among MSM (15).

In a 2018 study conducted in Galle, HIV prevalence among beach boys (BB) was reported at 0.3%, notably higher than the estimated general public rate of less than 0.1%. Despite the low overall

prevalence, sexual risk behaviours were strikingly high. Most beach boys engaged in sex with female paying tourists, with only 35.3% ever tested for HIV. Casual partners were more common than regular ones, and the use of condoms was notably higher with casual partners. Most were married, and the median age of BB in Galle was 30, indicating that most belonged to the young adult demographic. These patterns suggest that beach boys may act as a bridge population for HIV transmission between higher-risk groups and the wider community in Sri Lanka (16). However, in contrast, in 2023, out of 3104 BB tested through key population screening programmes, none tested positive for HIV (7).

STIs and HIV

While harbouring other STIs increases the risk of contracting HIV, it is also well established that those who are co-infected with HIV and STIs are three to four times more likely to spread the infection to their non-infected sexual partners(17). Co-infection with Herpes simplex virus 2 (HSV2) seems to be an important cofactor for HIV transmission (18).

The total number of reported STI cases in Sri Lanka declined to 5123 in 2020 due to the impact of COVID-19. While there were 11,592 cases in 2019, the numbers rebounded in 2023, reaching 11,589 (7). An estimated 60,000 new STI cases occur in Sri Lanka annually, out of which only 10 to 15% are treated at government clinics, while most seek care privately, leaving gaps in national reporting. Many male patients at STD clinics report sexual contact with female sex workers (FSW), 45% of whom have reported having multiple STIs. Common STIs include genital herpes, syphilis, gonorrhoea, non-gonococcal infections, genital warts, and trichomoniasis (8). Among males under 25, STI cases remained relatively low but showed a rising trend. Numbers began at 57 in 2019, declined to 36 in 2020, and climbed to 100 by 2023. Females in the same age group consistently had the fewest cases, with a slight increase from 24 in 2019 to 25 in 2023, despite a dip to 13 in 2022(7,11).

Prevention of HIV transmission

National Strategic Plan for Prevention of HIV with Special Emphasis on Youth

To achieve the goal of ending the HIV epidemic in Sri Lanka by 2030, HIV prevention efforts in Sri Lanka are aligned under five strategies: prevention; diagnosis; treatment and care; strategic information management; health systems strengthening and supportive environment. These strategies are directed toward specific key populations identified in the National Strategic Plan. These include MSM, FSW, transgender (TG) individuals, people who inject drugs (PWID), BB, and individuals in closed settings such as prison inmates. Prevention interventions are carried out either by healthcare workers or through peer-based outreach facilitated by non-governmental organisations (NGOs) and community-based organisations (CBOs). The choice of intervention settings and approaches is guided by scientific data, including estimates of key population sizes in each district, caseloads from STD clinics, and qualitative insights. Practical considerations such as the presence of hotels, spas, known hotspots, tourism hubs, patterns of migration, and availability of active NGOs and community networks also play a critical role in shaping effective and cost-efficient programming (11).

Sri Lanka's HIV prevention strategy for young people aged 15–24 years focuses on a multi-faceted, collaborative approach to reduce transmission among the general population, including the youth. Key directions include strengthening partnerships across public health institutions to integrate HIV/STI prevention at district and provincial levels, and embedding age-appropriate comprehensive sexuality education into school curricula. Youth-friendly health services such as 'Yowun Piyasa' and 'Mithuru Piyasa' address adolescent and youth health needs, including sexuality, sexual health, counselling, and gender-based violence (GBV). Capacity building for youth peer educators, integration of HIV/STI education into schools, universities, and medical schools, and collaboration with the National Child Protection Authority aim to enhance knowledge and

awareness. Additionally, this strategy promotes a multi-sectoral response involving health education, health promotion, social and behaviour change communication (SBCC), media, sports, and health promotion settings and workplaces, alongside the establishment of helplines and increased use of digital social media platforms to deliver sexual and reproductive health education to young people (11,17). Despite these well-documented strategic directions for HIV prevention among youth in Sri Lanka, challenges remain in translating these guidelines and strategic plans to practice, utilisation, and sustainability. This may be due to gaps in feasibility, accountability, community engagement, and ongoing evaluation. In addition, stigma, myths, and misconceptions that prevail among the masses may also be playing a part in the implementation of these preventive efforts.

Screening for HIV and STIs

In Sri Lanka, HIV screening is carried out through several targeted approaches aimed at early detection and prevention. These screening efforts represent a strategic public health initiative to prevent and control HIV transmission across the country.

The National Blood Transfusion Service tests all donated blood to identify HIV infections to ensure safety. All antenatal clinic attendees are screened for HIV to prevent MTCT. Screening is also incorporated into tuberculosis (TB) care programmes, given that individuals living with HIV are approximately 30 times more likely to develop TB (7). Furthermore, samples from key populations at increased risk, such as MSM, FSW, prison inmates, BB, and PWID, are regularly screened. Individuals attending STD clinics for other STIs are tested due to overlapping risk factors, and selected hospital patients and private sector patients may undergo HIV screening based on clinical indications and assessments. While the FSW population in Sri Lanka is estimated to be around 30,000 (uncertainty range 20,000-35,000), a study in Western province showed that FSW were more likely to uptake HIV testing while PWID were least likely (19).

Over one million HIV tests were conducted in Sri Lanka in 2023, and the seropositivity rate was highest among STD clinic attendees (0.6%), followed by the key population screening (0.4%). Of the key populations, the MSM were identified as the group with the highest HIV positivity rate in 2023 (2.4%) (7). National guidelines in England recommend that MSM should be screened every three months, as modelling studies have proved this to be cost-effective in detecting new HIV cases (20).

Despite these screening efforts, many young people remain unaware of their status due to a decline in clinic visits and reliance on self-testing kits, which may lack accuracy. The Western Province has been particularly affected, with males disproportionately represented in the new case data (7).

Apart from the youth in the general population, existing evidence highlights the dire need for screening other vulnerable groups, such as internal and external migrant workers, their families, individuals involved in the tourism sector, including tour guides, three-wheeler drivers, spa therapists, and their clients, and personnel from the tri-forces (11,21).

Sexual Health, Condom Promotion, and Other Sexual Health Promoting Interventions

Sexual health is a holistic concept that acknowledges the sexual rights of persons to have safe, respectful, and pleasurable sexual experiences free from coercion, discrimination, and violence, and encompasses physical, emotional, and social well-being concerning sexuality. It goes beyond the absence of mere disease, dysfunction, or infirmity, and achieving sexual health requires access to accurate, updated knowledge and supportive environments(17).

According to the Integrated Biological and Behavioural Surveillance Survey, 2018 data, condomless sex during the last sexual encounter was reported among MSM at 18%, FSW at 17%, transgender (TG) individuals at 24%, BB at 25%, and PWID at a notably high rate of 75% (11,22). While studies have proven that effective condom use leads to dual protection against STI/HIV and unwanted pregnancies, reliable evidence on the

effectiveness of condom promotion intervention trials is lacking (23). To improve the impact of condom promotion programmes, it is recommended that they be integrated with other sexual health-promoting interventions (24).

Elimination of Mother-to-Child Transmission (EMTCT) of HIV and Syphilis

Sri Lanka has adopted an integrated strategy to eliminate MTCT of HIV and Syphilis infections. In November 2019, Sri Lanka was officially recognised by the Global Validation Advisory Committee (GVAC) of the World Health Organization (WHO) as the third country in Southeast Asia to have successfully eliminated MTCT of HIV and congenital syphilis (9,25). However, to ensure the sustainability of this milestone, it is imperative to address the HIV-related challenges faced by youth, as outlined in this editorial.

Future of HIV and STI Prevention

While no new technology will be able to beat the effectiveness of abstinence and being faithful to one equally faithful sexual partner in preventing HIV, it's not realistic to expect all young adults to adhere to such behaviour. Multipurpose preventive technologies seem to be the way forward for HIV and STI prevention. Developing all-in-one one mostly woman-directed products that will prevent multiple STIs, HIV, related malignancies, and comorbidities, as well as unwanted pregnancies, makes sense (18). However, they need to cater to the needs of MSM as well.

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