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Editorial

Trends in Sexually Transmitted Infection Cases in HIV Populations in Indonesia: Need Firm Roadmaps and Actions

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Human immunodeficiency virus (HIV) infection and sexually transmitted infections (STIs) remain a public health problem and extend to social, economic, and cultural issues. HIV cases in the Southeast Asia region account for 10% of the total global HIV burden. In Indonesia, there are five provinces with the highest number of HIV cases as of December 2021, including DKI Jakarta (73,442), East Java (68,112), West Java (49,435), Central Java (42,012), and Papua (40,277). In Indonesia, based on the data published in 2021, 36,902 people lived with HIV (ODHIV) and in 2022 up to the third quarter (July - September 2022) there were 34,213 people. New HIV infections in Indonesia continue to decline, in line with the global decline in new HIV infections. However, this decline has not been as large as expected [1,2,3].

HIV cases were initially found in a homosexual population, later it was revealed that all people without exception have the potential to be infected with HIV, extending beyond traditionally identified high-risk groups. Analysis of available data indicates instances of HIV infection among individuals, such as housewives, children, or infants who may have acquired the virus through vertical transmission from HIV-positive mothers [4]. Also, the population of men who have sex with men (MSM) still ranks first in the percentage of ODHIV found reported in key population groups. There is a shift in the transmission pattern of HIV where in early 2000 HIV was transmitted through the use of shared needles among injecting drug users (IDUs), while from 2020 to 2022 transmission through sexual intercourse was the main mode of HIV transmission. Transmission via sexual intercourse is primarily documented within the homosexual demographic in contrast to heterosexual individuals [1,2,3].

STIs have a direct impact on sexual and reproductive health through stigmatization, infertility, cancer, and pregnancy complications and can increase the risk of HIV. More than 30 bacterial, viral, and parasitic pathogens are known to be transmitted through sexual intercourse, including vaginal, anal and oral sex. Some STIs can also be transmitted from mother to child during pregnancy, labor, and breastfeeding. Eight pathogens are associated with the greatest incidence of STIs, four of which are curable: syphilis, gonorrhea, chlamydia, and trichomoniasis. The other four are incurable viral infections, namely hepatitis B, herpes simplex, HIV, and Human Papilloma Virus (HPV). There is a re-emergence of neglected STIs, such as lymphogranuloma venereum. These facts, to a certain extent, underscore the escalating difficulties in delivering sufficient services for the prevention and management of STIs [5].

The number of STI cases tends to increase every year. The largest number of STI cases by risk group in order are high-risk couples, MSM, and female sex workers. However, the number of health facilities reporting STIs is much smaller than the number of facilities reporting HIV testing. This could be due to suboptimal reporting of STI cases through SIHA and

challenges during the COVID-19 pandemic. The number of STI cases tends to increase due to the lack of equity in screening and adequate management [2,3].

STIs are often asymptomatic, and the symptoms may also be non-specific. In addition, laboratory tests depend on blood, urine, or anatomical samples. Three anatomical sites can carry at least one STI. The variations may result from gender and sexual risks, which can frequently render individuals undiagnosed, leading to the administration of treatments for multiple infections. Molecular technology-based diagnostic tests for STIs are extensively utilized in affluent nations, proving particularly effective in detecting asymptomatic cases. Conversely, such diagnostic tools are largely inaccessible in low- and middle-income countries due to their high cost and limited availability. Even in regions where these tests are accessible, their procurement is often time-consuming, impeding prompt follow-up treatment and resulting in incomplete medical care. However, the development of various rapid tests holds promise for enhancing STI diagnosis and treatment, particularly in resource-constrained settings [5].

STI case finding was classified based on diagnosis through a syndromic approach or based on laboratory testing. The ranking of STI cases based on the reported syndromic approach was: complaints of body discharge, followed by genital vegetation, and lastly genital sores. Meanwhile, the ranking of STI cases based on the reported laboratory examination approach was cervicitis/non-gonorrheal urethritis, followed by syphilis, and finally gonorrhea [2,3]. Syndromic approaches frequently rely on clinical procedures, enabling healthcare practitioners to diagnose specific infections based on observed syndromes (e.g., genital discharge or ulcers). This simplified syndromic management ensures prompt, same-day treatment for symptomatic patients, circumventing the need for costly or unavailable diagnostic tests. However, this strategy often leads to unnecessary treatment and overlooks asymptomatic cases, which are common in most sexually transmitted infections (STIs). Consequently, the World Health Organization (WHO) advocates for enhancing syndromic management by progressively integrating laboratory testing to support diagnosis. In regions where the quality of testing is assured, treatment based on laboratory results is recommended. Additionally, implementing STI screening strategies is imperative for individuals at elevated risk of infection, such as sex workers, men who have sex with men (MSM), adolescents in specific communities, and pregnant women. Ensuring treatment for sexual partners is a crucial aspect of STI case management to interrupt transmission and prevent reinfection [5].

The goal of HIV/AIDS control in 2030 is to achieve three zero, namely zero new infections, zero AIDS-related deaths, and zero discrimination through the STOP program (Educate, Test, Treat and Maintain). The primary objective for 2030 is to achieve the 95-95-95 target, signifying that 95% of individuals living with HIV are aware of their HIV status, 95% of those diagnosed with HIV receive treatment, and 95% of those undergoing HIV treatment achieve viral suppression [6]. Regrettably, Indonesia was unable to achieve these targets, where by December 2022, the first 95% was still at 81%, and only half (41%) had received ARV treatment; while only 19% of PLHIV on ARV treatment had their virus suppressed [7].

The elimination target for STIs is based on the following indicators: a. the number of new syphilis cases (incidence) in males to 6 per 100,000 uninfected population aged 15 years and above; b. the number of new syphilis cases (incidence) in females to 5 per 100,000 uninfected population aged 15 years and above; and c. new infections of syphilis in children (congenital syphilis) to be less than or equal to 50 per 100,000 live births [8].

In response to the high number of STI and HIV/AIDS cases, the Indonesian Ministry of Health implements some prevention efforts: a. implementation of safe and non-risk behaviors; b. counseling; c. STI education to everyone at risk of infection, key populations, specific populations, and vulnerable populations; d. STI management following the applicable STI examination and treatment standards; e. circumcision; f. provision of immunization to prevent HPV infection to women from the age of more than 9 (nine) years; g. reduction of the adverse effects of narcotics, psychotropic substances, and addictive substances; h. prevention of mother-to-child transmission; i. prophylactic ARV administration to people at risk of HIV, both people who have been exposed to HIV and those who have not been exposed to HIV; j. screening tests of donor blood, blood products, and organs; and k. implementation of standard precautions to protect patients, health workers, the community, and the environment from infected body fluids and body substances, implemented as part of infection prevention and control efforts [8].

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