

## HIV Infection in Indonesia

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In Indonesia in the year of 2016, there were 34.5 million adults living with HIV infection from the total of 36.7 million people of all ages living with the infection. New HIV infection cases declined from the estimated 1.9 million (11%) in 2010 to 1.6 million in 2016.<sup>1</sup> Since 2013, the Indonesian government had adopted the national strategy to increase access to antiretroviral therapy as its role to stop HIV transmission. Early testing and initiation of antiretroviral therapy among key population group such as pregnant women, serodiscordant couple, patient with tuberculosis or hepatitis B co-infection, etc were widely applied under the regulation of the ministry of health.<sup>2</sup> Parallel to that, many cities across Indonesia are showing the effort in increasing the access to condom that showed an effective impact in lowering the number of sexually transmitted infection such as Syphilis in Indonesia from 2014 report.<sup>3</sup>

Initial report by Nelwan EJ et.al,<sup>4</sup> showed that among the high risk group such as prisoners, the Indonesian government has already applied the regulation for HIV screening at the time of admission,<sup>5</sup> which lead to significantly lower number of HIV infection among tested prisoner.<sup>4</sup> In a larger scale, such as in population, the question is what kind of preventive measures proved to be effective, particularly for the Indonesian government to best allocate available funding. In this edition, a very exciting information was gathered from a study conducted by Verstraeten<sup>6</sup> and colleagues in Bandung which is the most HIV prevalent city in West Java, regarding the

four different intervention programs of HIV transmission, including condom distribution, mobile HIV testing (VCT), religious based IEC and STI services, which were the most cost effective measures to be applied and information its challenges.

On the other hand, the Indonesian government reported that 31% of people diagnosed with HIV was already on antiretroviral treatment.<sup>7</sup> In clinical setting, HIV patient will receive antiretroviral treatment based on the WHO criteria that includes clinical criteria (HIV stage 3 and 4) and laboratory criteria (CD4 below 350 cell/uL in regards of viral load level).<sup>2,8</sup> In spite of the poor access to antiretroviral treatment, which covers only 6-8% of those who are eligible to be treated; nowadays, the concern is towards the HIV resistance among treated HIV patients in Indonesia which is starting to rise.<sup>9</sup> In this edition, Yunifiar, et al<sup>10</sup> reported the epidemiology of HIV infection in Papua which is the most HIV prevalent province in Indonesia. They also reported the data on HIV subtyping and potential HIV drug resistance mutation among patients treated in Paniai, Papua.

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