From the Millennium Development Goals to Sustainable Development Goals.
The response to the HIV epidemic in Indonesia: challenges and opportunities

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Abstract
Since the first case was reported in 1981, the Indonesian government and civil society have implemented many initiatives to respond to the HIV/AIDS epidemic. From an historical perspective, the country now has the means to rapidly diagnose cases of HIV infection and provide antiretroviral therapy. The concern expressed by international health agencies about a potential major HIV epidemic in the country has not been confirmed, as evidenced by a slowing down of the number of cases. The threat from non-sterile needle sharing has been relatively well controlled through harm-reduction programmes; however, drug trafficking remains a challenge. It has reached worrying levels and involves law enforcement units at the forefront of the battle. In parallel, the level of condom use in high-risk behaviour groups seems unsuccessful in reducing infection rates, especially among heterosexuals. The lack of information and the high mobility of the groups at risk of acquiring HIV infection have created tremendous challenges for outreach programmes. Heterosexual transmission represents the most important route of transmission in the country.

When reflecting on the country’s 2014 Millennium Development Goals, condom use during high-risk sex only reaches 43.5%, and only 21.3% of young people have a comprehensive knowledge about HIV/AIDS. The 2030 Millennium Development Goal Agenda offers an opportunity to catch up on goals that still need to be achieved. Therefore, efforts are underway to try to halt the epidemic by 2030 and also to ensure that all high-risk populations are included in this effort.

The current state of the HIV epidemic in Indonesia

The HIV epidemic in Indonesia is concentrated among key populations, except in Papua where there is a low-level generalised epidemic. These populations include direct and indirect female sex workers (FSW), men who have sex with men (MSM), Waria (transgender people), people who inject drugs (PWIDs) and high-risk men.

In December 2015, 407 districts/cities reported HIV/AIDS cases. The remaining 100 districts/cities had not reported any or had detected no cases [1]. The two most important transmission routes were: (1) unprotected heterosexual intercourse, especially among those who have multiple partners; and (2) needle sharing among PWIDs.

In general, the trend in HIV prevalence among key populations according to the Integrated Biological and Behavioural Survey (IBBS) from the Ministry of Health over 22 districts in 2015 has shown progress towards a decrease in HIV prevalence, apart from among MSM (Figure 1) [4].

The highest HIV prevalence in 2015 was found in PWIDs, compared with 2007, this shows a decrease from 52.5% to 28.8%. However, between 2007 and 2015 there was a sharp increase in prevalence among MSM from 5.5% to 25.8%, respectively.

Transmission through heterosexual relationships

The risk of HIV transmission in Indonesia is currently dominated by high-risk heterosexual behaviour (47%) [1], including through buying sex. In the 2015 IBBS [4], the most frequent sex buyers in the previous year were Waria (26%), followed by potentially high-risk men (23%), PWIDs and MSM (15% each).

Data from the 2015 IBBS do show indications of success of the HIV/AIDS programmes [4]. For example, comparing condom use among high-risk groups at last sex between 2007 and 2011, the findings are encouraging among direct FSW, although we have not observed the same increase for indirect FSWs and PWIDs. In the 2015 survey of high-risk men, the lowest proportion of those who used condoms at last sex were motorcycle taxi drivers (6.8%) and truck drivers (11.1%).

There is an increasing proportion of individuals who always/consistently use condoms among the indirect FSW group, whereas among direct FSWs and PWIDs, we saw a decrease from 62.1% and 14% in 2011 to 43.4% and 2.5%, respectively. In the 2015 survey, among high-risk men, the groups that had the lowest proportion of those who always used a condom were motorcycle taxi drivers (0.81%) and truck drivers (1.32%) [4].

There have been long-standing programmes providing free condoms in the country. In the 2015 IBBS the highest proportion of those who received free condoms were PWIDs (77.2%), followed by Waria (68.1%) and high-risk men (53%). Meanwhile, a decline was noted in the proportion of recipients of free condoms among the direct and indirect FSWs. Sources for distribution of free condoms in 2015 were non-governmental organisations. However, direct FSW and PWID groups also mentioned buying condoms from stalls or shops, while indirect FSWs, high-risk men, Waria and MSM bought them in pharmacies or drug stores.
Transmission through injecting drug use

Until 1996 the HIV epidemic in Indonesia was still focused in MSM; however, other high-risk groups or key populations were emerging. Data show that in 1993, one individual was identified as having contracted HIV through injecting drugs. In 2002, the number of people living with HIV (PLHIV) from this group had increased to 116 and came from six provinces. In 2004, the number of HIV cases in this group accelerated so quickly that in only 2 years, it had reached 30% of the total 2682 cases of HIV/AIDS identified in 25 provinces.

The number of newly reported HIV infections increased almost four-fold between 2003 and 2004, although this may be associated with enhanced testing and counselling, improved diagnosis by medical personnel and enhanced reporting mechanisms, especially in Java, Bali and some other provinces outside these two islands. It also meant that the HIV epidemic in Indonesia had switched from being low level to being a concentrated epidemic with a prevalence above 5% among high-risk populations. The estimated number of PWIDs, in 2012, was approximately 60,000–80,000 and has remained unchanged since 2009. This figure, as estimated by a regression model for PWIDs, was consistent with that from the National Narcotics Board (Indonesia) and with anecdotal evidence suggesting a continuing trend in substitution of injected heroin for oral methamphetamine. This reduction may also be due to fewer individuals injecting drugs or a higher mortality rate among PWIDs [2]. The success in reducing HIV prevalence among PWIDs is attributed to the efforts made towards harm reduction through a policy that among the three highest risk groups for HIV transmission, in the past week from 12.2% to 8.5% and 5.8% in 2007, 2011 and 2015, respectively. Therefore, it seems that the country’s harm-reduction programme is already on the right track.

To address injecting drug use and to prevent HIV transmission through sharing needles, the Minister of Health has issued national regulation Nomor 55 year 2015 on harm reduction among PWIDs, which revised the MH decree Nomor 567/Menkes/SK/VIII/2006. This policy aims to reduce HIV/AIDS morbidity and mortality caused by injecting drug use and improve the quality of life for PLHIVs.

The following four services are considered effective in preventing HIV transmission in this harm-reduction programme: (1) sterile needle-exchange programme to prevent the sharing of needles and syringes; (2) methadone-maintenance therapy or opiate-drug substitution therapy, especially heroin with methadone; (3) drug addiction treatment; and (4) medical treatment for PWIDs and an HIV-positive partner. Such services can be provided at Puskesmas (community health centres), hospitals and prisons/detention centres. In the 2015 IBBS, 10 years after the harm-reduction policy was initiated, the HIV prevalence in PLHIVs had fallen from 52.4% in 2007 to 28.8% in 2015 [4].

Transmission through same-sex relationships

MSM are the second highest group affected by HIV after heterosexuals (22%; Table 1). When looking at the data on reported cases of HIV infections from 2010 to 2015, it appears that among the three highest risk groups for HIV transmission,
MSM show an upward trend. This is different from PWIDs who have displayed a yearly decrease. Infection rates among heterosexuals began to show a decline in 2014 (Table 1).

The MSM population is the group with the highest level of knowledge of HIV/AIDS according to the 2015 IBBS, in which 65.6% of respondents could correctly answer five basic questions on HIV that have been used as a Millennium Development Goal indicator. This figure was higher compared to the reporting periods in 2007 (40.5%), and 2011 (25.5%).

Among the Waria, the level of comprehensive knowledge has remained unchanged between the IBBS reports in 2007 and 2015, and approximately 35% of respondents correctly answered five basic questions. This means that providing an information programme for the purpose of behaviour change still needs to be continued and strengthened in this population.

HIV and sexually transmitted infections (STIs)

The 2015 IBBS has shown a decrease in the prevalence of syphilis among the Waria population, direct and indirect FSWs and high-risk men (Figure 2). In contrast, an upward trend is ongoing in MSM from 4.3% and 9.3% in 2007 and 2011, respectively, to 15.7% in 2015. In PWIDs the trend is still changing, from 1.2% in 2007 to 2.1% in 2011, although there was a slight decrease in the 2015 IBBS. Therefore, the control of infectious diseases must be accompanied by an increase in more regular condom use, and as previously discussed, condom coverage still needs to be improved.

In terms of health-seeking behaviour, an improvement has been seen in the past few years. Surveys in 2007 and 2011 among direct FSW who had experienced one STI symptom indicated that most people tried to self-medicate, while in the 2015 survey most have sought help at hospital/health centres. The same trend was seen among MSM, Waria and PWIDs. Among indirect FSWs and high-risk men, self-medication is still the most favoured course of action. Among PWIDs, when compared to 2011, the self-medication rate had decreased by 2015 while the number of those who sought medical help in health centres more than doubled from 18% to 39%, indicating an increase in awareness in this group.

The HIV epidemic in Papua

Indonesia has long been described as having a dual HIV epidemic: one concentrated in key populations nationally, and by 2013, a generalised epidemic in Papua and West Papua provinces with a prevalence of 2.3% [5]. The national prevalence among the adult population estimated by Asian Epidemic Modelling was at 0.3% in 2013 [6]. There are variations among districts and provinces, such as levels as high as 55% among PWIDs in Jakarta and 56% among FSW in the central highlands of Papua. These provinces have experienced low-level generalised epidemics, boosted by heterosexual transmission, although, in the last 7 years, rates of high-risk sexual behaviours such as paid sex, sequential sex and pre-sex drinking have declined. In 2013 approximately 12.7% of married men and 3.6% of married women reported having sex out of wedlock in the previous year, a decrease when compared to figures from 2006 of 18.2% and 5.3%, respectively [5].

The 2006 IBBS shows that sexual behaviour patterns in Papua are relevant in terms of HIV transmission [7]. On average sexual debut occurs at 19.5 years for men and 18.8 years for women. However, the proportion of young people in Papua aged 14–24 years who started having sex before age 15 years was significantly higher than among older people in the age groups 25–39 and 40–49 years. This trend is more dominant among females than men. Early sexual relationships often come with poor reproductive health knowledge, including that of STIs and HIV, especially among girls. In other words, these girls do not understand the risks they face, or have awareness of the options available for their protection. A lack of information increases their vulnerability to infection [7].

In addition to an early sexual debut, high-risk sexual practices in Papua continue to be problematic, for example multiple sex partners, an active sex life and sequential sex, where a female has sex sequentially with several men [8]. These practices in urban areas are believed to be connected to money, alcohol or drugs: a man who does not have enough money to buy the services of a commercial sex worker or to meet his girlfriend’s expectations may meet up with other men to buy sexual services collectively. These men then negotiate the fee with a woman who will have sequential sex with all of them [8].

The main challenges for combating HIV in Papua remain issues such as communication, geographical location and infrastructure, especially transportation and healthcare infrastructure, poverty, alcohol excess and promiscuity supported by the local culture, as well as sexual and gender-based violence.

It is also generally difficult to find condoms available in the region and according to the 2006 IBBS findings, only 17% of respondents reported being able to easily obtain condoms. Pharmacies and
Antiretroviral therapy in Indonesia: history, challenges, barriers and opportunities

At the beginning of the epidemic, the major barrier to treatment access was cost. The Pelita Ilmu Foundation workshop recorded 25 PLHIVs in Jakarta who received antiretroviral treatment (ART) in 1998. Each month these needed Rp6–7 million/person to buy their medication. However, with the help of benefactors, a PLHV now pays only an average of Rp1.5 million/month for medication.

Today the government provides first-line and several second-line antiretrovirals for free. It is important to note that the journey to provide free ARVs did not only involve the government, but also civil society and the medical community who have run successful advocacy campaigns. Co-operation between several government agencies has proven that strong leadership could bring positive results. In 1997, thanks to the advocacy of the public and the medical community, the National Agency of Drug and Food Control, (NA-DFC) and the Ministry of Health issued an official letter to the Directorate General of Customs, Ministry of Commerce. It informed the Directorate General of Customs and Excise that NA-DFC was expecting a shipment of AIDS drugs from abroad that was addressed to Pokdisus AIDS and that these should be released immediately without having to go through a trial by the Head of NA-DFC. In reality, PT Pos Indonesia delivered the drugs directly to Pokdisus AIDS. In the same year, the Minister of Finance also issued a decree to exempt ARVs from import duties.

In 2004, the Ministry of Health released an estimate of the number of PLHIVs, which then stood at 600,000. This number was much lower than the previous estimate of 700,000 people in 2012. From a total of 200,618 individuals who had tested positive, 63,066 were on ART in December 2015.

The latest ART data in Indonesia have shown that the number of people with HIV/AIDS who have received ARVs up to December 2015 was at 63,066. Most of them (75.6%) were using the original first-line regimen, 21.2% used substitutes and 3.3% had switched regimen. This number was far below the total number of people who tested positive for HIV/AIDS, e.g. 268,185, and is less than 25% especially when compared to the estimate in September 2014 of 600,000 individuals living with HIV.

To close the gap in the linkage to care, an important strategy is the 2015–2019 National Strategic Action Plan, which aims to intensify and accelerate the Strategic Use of ARVs (SUFA) that was launched by the Ministry of Health in mid-2013. It aims to increase HIV testing and ART coverage and retention, aimed particularly at pregnant women, HIV/TB co-infected patients, HIV/hepatitis B and C co-infected patients, FSWs, PWIDs, MSM, and serodiscordant couples with inconsistent condom use. SUFA was implemented in 13 districts/cities and expanded gradually in 2014 to cover a total of 75 districts/cities [10].

In 2013, the Ministry of Health issued the following regulations to address the challenges of the HIV epidemic [1]:

- The Health Minister Regulation No. 21 in 2013 on HIV/AIDS control. The scope of the policy includes health promotion, prevention, diagnosis, treatment and rehabilitation for the individual, family and community.

- The Health Minister Circular Letter Nomor 129 year 2013 on the implementation of the HIV/AIDS and STI control. The letter requested the Head Provincial Office, District Health Office and Director of Hospitals in Indonesia to strengthen health promotion and prevention, expand HIV counselling and testing and care-support-treatment.

- The Health Minister Regulation No. 51 in 2013 on the guidelines for PMTCT. The guidance aims to develop and implement PMTCT activities, develop human resources at central and regional levels, mobilise and increase the commitment from stakeholders and communities.

Other policy strengthening actions that support the response include the launch of the National Social Security System which includes a financial package as part of HIV service costs for opportunistic infections and STI treatment for PLHIVs, and the roll-out of gender-sensitive planning and budgeting at the national and regional levels. At the local level, however, gaps remain in local policies and/or regulations that support access to services for affected key populations and PLHIV.

From Millennium Development Goals (MDG) to Sustainable Development Goals (SDG): some lessons learned

Millennium Development Goals: what have we achieved?

Based on the latest MDG report, the percentage of the population aged 15–24 years who have comprehensive knowledge about
HIV/AIDS is still as low as 21%. This indicates that the group is still highly vulnerable to HIV infection. One type of intervention is the provision of information focused on HIV/AIDS through the campaign Aku Bangga Aku Tahu (ABAT), which literally means ‘I’m Proud I Know’. This campaign is a strategy to promote responsible sexual behaviour and information on modes of HIV transmission. This campaign started simultaneously in all provinces of Indonesia in 2012 and involves the government and businesses, and is aimed in particular at young people. Other efforts include attempts to decrease the number of cases and improve people’s access to treatment and integrated HIV/AIDS services. Up until December 2015, there were 2221 HIV counselling and testing (HCT) sites and 528 care, support and treatment (CST) sites in existence. Furthermore, 261 sites for PMTCT were integrated into maternal and child health services. As a result, there is an increasing number of pregnant women (100,718) aged 15 years and over who have tested and have received their test results in the past 12 months, as compared to 42,276 the previous year [1].

In addition, there are already 1643 service places for the management of STIs and 90 places for the methadone maintenance treatment programme. Another achievement is the issue of various local regulations strengthening initiatives to prevent HIV/AIDS, such as 10 Regional Regulation (Perda) Provincial levels; one Regulation strengthening initiatives to prevent HIV/AIDS, such as compared to 42,276 the previous year [1].

In the past few years the Ministry of Health has developed a system to decentralise ARV provision by strengthening supply chain management. As a result more accurate data about the adequacy of ARV supplies and reporting have been obtained. In the implementation of decentralisation, the Provincial Health Office is responsible for the reporting of ART management and distribution in the region. Decentralised ARV distribution started in 2011 and has gradually expanded. Up to 2015, there were 23 provinces that had implemented this policy [11].

Decentralisation of ART distribution

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What needs to be improved?

Some of the differences between the MDGs and the 2030 Agenda (SDGs) include: Zero Goals, Universal Goals, More Comprehensive Goals, Inclusive Goal Setting, Differentiate Hunger from Poverty, Financing, Peace, Data Revolution and Education Quality [11].

Regarding health, the SDG has Goal 3 for all health issues, efforts to ensure the well-being and promote fulfilment of the right to health for all people without exception. Target 3.3 reads: ‘By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases’. In addition, the following goals and targets in SDGs are relevant to the plan to end the AIDS epidemic by 2030, those are goals number 1–5, 8, 10, 11, 16 and 17. It is important to see these as a united effort to ensure that nobody is left behind [12].

Conclusions

In terms of HIV management, Indonesia is still facing a number of challenges [10]. First, to improve HIV treatment coverage, which requires extra effort, the following strategies are recommended:

- Increasing the number of people who have access to HIV testing and treatment through routine tests
- Ensuring the benefit of such interventions by starting early treatment
- Strengthening referral systems between field officers
- Improving the quality of HIV testing and treatment
- Providing support to those who do not have access to ARVs
- Supporting those who are on ARVs and the necessary laboratory monitoring, particularly with regard to CD4 T cell count and HIV viral load testing.

Secondly, to establish and strengthen networks among self-help groups in key affected populations. These need encouragement to advocate for comprehensive services and to improve and update their members’ knowledge about HIV. Various types of research, protocols and treatment guidelines, including for STIs, and prevention programmes are ongoing. It would be very unfortunate if the research findings and documentation established were not used to promote health-seeking behaviours. Thirdly, consistent condom use should be encouraged to avoid STIs, as well as healthy sexual behaviour to further support the impact of ARVs.

In conclusion tangible success has been achieved in the past few years in terms of the HIV epidemic in Indonesia with the implementation of policies aimed at its prevention and treatment; however, there remain many challenges that need to be overcome to reach the 2030 MDGs.

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