



SHORT REPORT

Paediatric HIV and elimination of mother-to-child transmission of HIV in the ASEAN region: a call to action

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Recent achievements in scaling up paediatric antiretroviral therapy (ART) have changed the life of children living with HIV, who now stay healthy and live longer lives. However, as it becomes more of a chronic infection, a range of new problems have begun to arise. These include the disclosure of HIV serostatus to children, adherence to ART, long-term toxicities of antiretroviral drugs and their sexual and reproductive health, which are posing significant challenges to the existing health systems caring for children with HIV with limited resources, experiences and capacities. While intensified efforts and actions to improve care and treatment for these children are needed, it is crucial to accelerate the prevention of mother-to-child transmission (PMTCT) of HIV, which is the main cause of paediatric HIV in the ASEAN region so as to eliminate the fundamental cause of the problem. This report argues that given over 70% of women have access to at least one antenatal care visit in the region and acceptance of HIV testing after receiving counselling on PMTCT could be as high as 90%, there is an opportunity to strengthen PMTCT services and eventually eliminate new paediatric HIV infections in the ASEAN countries.

Keywords: paediatric HIV; antiretroviral therapy; disclosure; prevention of mother-to-child transmission; elimination of paediatric HIV

Introduction

Of the two million children under 15 estimated to be living with HIV globally, 160,000 of them live in Asia and the Pacific. Among them 30,000 children were receiving antiretroviral therapy (ART) in 2008 with a proportion of them on treatment for several years (UNICEF, UNAIDS, WHO, & UNFPA, 2009). Recent achievements in scaling up services for the provision of paediatric ART have changed the life of children living with HIV; they can stay healthy, live longer lives and also attend school. However, as HIV infection becomes more of a chronic condition, a range of new problems and challenges have begun to arise.

The ASEAN and Japan HIV/AIDS workshop (ASEAN AIDS workshop) which aims at sharing the experiences and exploring possible solutions for common challenges among ASEAN member countries, namely Brunei Darussalam, Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Viet Nam, has been organised annually

since the year 2003 hosted by the Ministry of Health, Labour and Welfare Japan. The sixth ASEAN AIDS workshop was held in Tokyo in February 2009 with participants from ASEAN member countries, World Health Organization Regional Office for the Western Pacific, the National Center for Global Health and Medicine and the Ministry of Health, Labour and Welfare Japan. Paediatric HIV and prevention of mother-to-child transmission (PMTCT) of HIV was the one of the main issues discussed during the workshop.

Currently, relatively few initiatives have drawn attention on the issues of paediatric HIV and PMTCT of HIV in the region despite serious challenges they face and their negative consequences on children. The aim of this report is to highlight these issues by drawing the discussions and conclusions reached in the ASEAN AIDS workshop and the review of the existing evidences, and to contribute to the ongoing efforts to eliminate mother-to-child transmission of HIV, thus virtually eliminating paediatric HIV in the region.

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Challenges in paediatric HIV care, support and treatment

Four major challenges on paediatric HIV care, support and treatment were raised and discussed during the workshop. The first issue concerned with the disclosure of HIV serostatus to children, a highly complex issue as also reported by several authors (Lesch et al., 2007; Wiener, Mellins, Marhefka, & Battles, 2007). The participants reported that the challenges often combine the reluctance of families to disclose HIV infection to their children together with a limited experience of health care providers in managing this critical step. Although most countries represented in the workshop have reportedly set 10 years of age as the time for disclosure, doubts about its appropriateness were voiced by participants, along with concerns related to a lack of experience and confidence about the process of disclosure. The workshop agreed that the most appropriate time would be when children start asking questions regarding their condition and reasons for the treatment, and that disclosure should be done gradually and through age-sensitive approaches and contents.

The second issue referred to adherence to anti-retroviral (ARV) treatment. It was stated that relatively high rates of adherence are currently reported among young children, whose compliance almost entirely relies on their caregivers. However, it appears that adherence gradually decreases as these children become adolescents, and accordingly assume more responsibility for their medication-taking. Adolescents often discontinue medication due to medication fatigue (Saitoh et al., 2008), which was also reported from the workshop participants. It is also known that adolescents sometimes use non-adherence to medication as a way to express their autonomy (Simoni et al., 2007). Moreover, appearance change due to lipoatrophy or even the perception of this potential risk could lead adolescents to discontinue medication (DeLaMora, Aledort, & Stavola, 2006). Keeping adherence rates among paediatric patients, especially adolescents, continues to pose a major challenge.

Thirdly, as children living with HIV grow into adolescents, sexual health becomes a significant issue of concern. They start to develop intimate relationships, which bring new complex issues, such as disclosure of their HIV status to their boyfriend/girlfriend, fear of stigmatisation and discrimination, and risk of transmission of HIV infection (Thorne et al., 2002). Furthermore, it was reported that in some western countries their perspective marriage, pregnancy and parenting were raising additional challenges and concerns.

Fourth, long-term toxicities of ARV drugs, such as mitochondrial toxicity and metabolic abnormality, are of significant relevance for paediatric cases, as length of treatment may be expected to span several decades. A WHO survey found that in Cambodia, among 3236 children who were on the first line regimens in 2009, 3058 (94.5%) of them were on regimens including d4T and in Viet Nam, 1324 children among 1817 (72.9%) were on regimens including d4T (WHO, 2010). Since the majority of children are younger than 10 years of age, it is expected that most of them may experience d4T-related toxicities such as lipoatrophy as they become teenagers. As mentioned above, lipoatrophy is reported as one of the main obstacles to drug adherence among adolescents in developed countries (DeLaMora et al., 2006). As the new WHO guidelines recommend phasing out the use of d4T (WHO, 2009a), awareness of this potential risk should be raised and strategies for more appropriate regimen choices should be discussed.

As argued above, paediatric HIV is already confronted with several challenges; it is expected that these problems could become more complex in the future as children grow into adolescents and young adults. Continuous, dedicated efforts and infinite patience from children themselves as well as support from family and health care providers are necessary to keep and achieve high adherence to ART. Drug toxicities are unavoidable unless new less toxic ARVs are produced and made available at affordable cost for resource-limited settings. Psychosocial impact related to HIV infection in children is immense and immeasurable, which may affect them not only psychologically but also socially, for example, by affecting their relationships with others and their future opportunities. This workshop agreed that all these challenges require immediate attentions and dedicated efforts are urgently needed to overcome these seemingly inextricable difficulties.

Strengthening prevention of mother-to-child transmission (PMTCT) of HIV

While intensified efforts and actions to improve care, support and treatment for children living with HIV are needed urgently, it is fundamental and crucial to strengthen HIV prevention and stop new infection from occurring among children. Since over 90% of new HIV infections among infants and young children occur through mother-to-child transmission of HIV (WHO & UNICEF, 2007), it is obvious that prevention remains the top priority. It is well-documented that focused and well-established interventions for

PMTCT have virtually eliminated paediatric HIV in high-income countries, with antenatal care (ANC) playing an important role as a platform for HIV testing and provision of prevention services (WHO & UNICEF, 2007).

As shown in Table 1, although most countries report high-ANC coverage ranging from 70% to over 90% (UNICEF et al., 2009), coverage of PMTCT service in this region remains low with estimated coverage of 25% in average (WHO, UNAIDS, & UNICEF, 2009). This indicates that weak PMTCT services and low coverage rates are leaving mother-to-child transmission of HIV largely unabated and resulted in high number of new paediatric infections, which in turn aggravate the complex problems related to the management of paediatric HIV, especially in settings where available expertise for such services is quite limited. In the absence of stronger and more effective PMTCT services, it is expected that the number of children with HIV will continue to increase and pose additional challenges to health systems.

One of the reasons suggested to explain the low coverage of PMTCT services is the dominance of treatment and care over prevention in HIV control efforts (Horton & Das, 2008). Other reasons include limited financial and human resources (Paintsil & Andiman, 2009); fragile maternal, newborn, and child health (MNCH) services; low acceptance of HIV testing due to the poor quality of services; limited information; lack of access to ART (Dahl, Mellhammar, Bajunirwe, & Bjorkman, 2008); and problems related to the involvement of male partners (Kakimoto et al., 2007). Moreover, weak coordination within ministries of health and among public

health programmes, often caused by incoherent policies, financing and institutional mechanisms, is often recognised as a significant factor (Druce & Nolan, 2007).

However, there is now an effort to strengthen PMTCT services in the region by linking HIV and MNCH services by applying the Asia-Pacific operational framework for linking HIV/STI services with reproductive, adolescent, MNCH services, which is known as Guilin Framework (WHO, UNICEF, UNFPA, & UNAIDS, 2008) with some promising success in some countries. The Asia-Pacific United Nations task force for the prevention of parent-to-child transmission of HIV has also strongly committed to pursue the virtual elimination of paediatric HIV in the region.

Call to action

Given that over 70% of women have access to at least one ANC visit in the region, and acceptance of HIV testing after receiving counselling for PMTCT could be as high as 90% (Kakimoto et al., 2007; Pai et al., 2008), there is an opportunity to strengthen PMTCT services, all the more so in the ASEAN region with low HIV prevalence and a relatively well-established health infrastructure compared to other resource-limited countries. Drawing from successful experiences of countries like Thailand, where rates of new HIV infections through mother-to-child transmission have been dramatically reduced from 6.4% in 2001 to 1.3% in 2006 (National AIDS prevention and alleviation committee, 2008), the workshop recognised political commitment and full integration of PMTCT

Table 1. Prevention of mother-to-child transmission of HIV in the ASEAN region.

	Estimated adult HIV prevalence rate (%), 15–49 years), 2007 ^a	ANC coverage (%), 2003–2008 ^a	Percentage of pregnant women with HIV who received ARVs for PMTCT: low–high estimates (%), 2008 ^b	Children (0–14 years) living with HIV, 2007 ^a
Brunei	–	–	–	–
Darussalam				
Cambodia	0.8	69	35– > 95	4400
Indonesia	0.2	93	4–15	4360 ^c
Lao PDR	0.2	35	8–28	–
Malaysia	0.5	79	10–39	–
Myanmar	0.7	–	14–65	–
Philippines	–	91	<1–1	50 ^c
Singapore	0.2	–	–	–
Thailand	1.4	98	33– > 95	14,000
Viet Nam	0.5	91	27–87	3055 ^c

^aSee UNICEF et al. (2009).

^bSee WHO et al. (2009).

^cThe sixth ASEAN and Japan HIV/AIDS Workshop 2009 country report.

services into well-organised MNCH care systems as a key to success.

With the new WHO rapid advice on use of ARV drugs for treating pregnant women and preventing HIV infection in infants recommending the use of more efficacious ARV regimens (WHO, 2009b), it is believed that through close linkage and collaboration between HIV and MNCH programmes sustained by strong political commitment and joint effort from all the stakeholders, elimination of paediatric HIV in the ASEAN region is an achievable goal.

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