

Economic Aspect of HIV/AIDS Control and Injecting Drug Use in Indonesia

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ABSTRACT

The HIV epidemic in Indonesia is among the fastest growing in Asia, and limited funding is available for HIV/AIDS control. This raises a number of important policy questions, about the adequacy of the level of available funding, the appropriateness of its use, and its financial sustainability. This paper puts these questions in context of the present Indonesian health system.

The Indonesian health policy response to HIV/AIDS faces a number of challenges. The nature of the Indonesian HIV epidemic (increasing overall prevalence, with different epidemic profiles); the characteristics of the Indonesian health system (decentralized policy making, low and inequitable funding), and the low and highly internationalized funding of HIV/AIDS control (resulting in low service coverage and questions of sustainability) draw out a very specific health environment of HIV/AIDS.

Economic analyses in health are instrumental to guide policy makers on the best use of scarce resources, and holds as such also large potential in this context. However, very little information on the costs and effects of HIV/AIDS control in Indonesia is available, and we call for a broader application.

Key words: health care costs, cost benefit analysis, cost effectiveness, HIV infections, substance abuse, intravenous, Indonesia

INTRODUCTION

In Indonesia, the HIV epidemic is increasing, and among the fastest growing in Asia.¹ The epidemic is concentrated among injecting drug users (IDUs) and their sexual partners in most parts of the country, but generalised in some other parts. In 2007, an estimated 193,000 Indonesians were living with HIV/AIDS, with HIV prevalence among the general Indonesian population between 15 and 49 years of around 0.16%.² Total deaths in Indonesia because of HIV/AIDS are estimated at 5,500 in 2005.

Needle-sharing, which is a very efficient way to transmit HIV, has been reported to be almost universal, while unprotected sex was found to be common, including having multiple partners (48%) and buying sex from sex workers (40%) among IDU. More than 80% of new HIV-infections are now due to IDU.³ HIV rates among IDU reached 45% in West Java, 48% in Jakarta and 53% in Bali.⁴ Even when the numbers of IDUs are relatively small, their contribution to the overall epidemic in a country can be considerable, because of further spreading sexually, creating a critical mass in sexual networks. The Indonesian government has been developing and implementing HIV/AIDS control policies in response to the epidemic since 1997, and in 2006, a total of US\$57 mln was spent from all sources.⁵

A number of important policy questions in HIV/AIDS control prevail, all related to the use of these resources to control the epidemic in Indonesia. The first question relates to the absolute level of resources that is currently available, and how these compare with the health

problem at hand now and in the future. In other words, is present funding sufficient to combat the epidemic? The second question relates to use of available funding, and whether these are being used adequately. That is, is present funding being targeted at the right interventions, at the right group of people, and in the right geographical areas? The third question relates to the financial sustainability of the present Indonesian HIV/AIDS control program – are such program based on reliable sources of funding? These are vexing question in a time where adequate policy measures are urgently needed in Indonesia to prevent the epidemic – which is now still concentrated in specific target groups and/or geographic areas – to spread over to the general population in larger parts of the country.

This paper deals with the above questions, and as such describes HIV/AIDS policy in Indonesia with special reference to the allocation of resources. To that aim, we first outline the context, i.e. the characteristics of the Indonesian health system that may affect HIV/AIDS control. Second, we discuss HIV/AIDS expenditure patterns in Indonesia. Next, we describe the potential role that economic analyses like costing and cost-effectiveness analysis could play. The paper concludes with a number of recommendations on future research on economic analysis on HIV/AIDS control in Indonesia.

HEALTH POLICY AND HIV/AIDS IN INDONESIA

Health Policy in Indonesia

Indonesia has made significant progress in health outcomes over the last decades. For instance, infant mortality dropped from 118 deaths per thousand births in 1970 to 35 in 2003, and life expectancy increased from 48 years to 66 years over the same period. This progress owed much to the expansion of public health provision in the 1970s and 1980s. However, new challenges have emerged as a result of social and economic changes, and there are a number of additional major factors that make the careful allocation of health resources an imperative.⁶⁻⁸

First, in recent years, Indonesia's public expenditures on health have increased substantially. In real terms, total public spending on health has more than quadrupled from about US\$1 billion in 2001 to over US\$4 billion in 2007, surpassing for the first time 1 percent of GDP. Despite this increase, Indonesia still spends comparatively little on health. In total, Indonesia spends less than 3 percent of GDP on the health sector (which is split between private and public spending in a ratio of 2 to 1). In contrast, Vietnam, the Philippines, Malaysia

and most of Indonesia's other neighbors spend more. It is, therefore, critical that limited available public funds should be spent well.

Second, health financing is not only low, but also inequitable. Health financing is overwhelmingly private, with individuals providing 75-80 percent of all health outlays, and most of this out-of-pocket, i.e. at the time they receive health services. The result is that the poor utilize less of the publicly funded services and, consequently, receive less public subsidies than the rich: the poorest 20 percent of the population captures less than 10 percent of total public health subsidies while the richest quintile captures almost 40 percent. Publicly financed services should, therefore, be targeted to those who need them. In addition, there are important regional and socioeconomic inequities in the health system, i.e. people in rural areas, and the poor have less access to the health system.

Third, decentralization poses new challenges and presents new opportunities. Local governments have become the focal point for health care provision: their share in total public health spending increased from 10 percent prior to decentralization, to 50 percent in 2001. This shift could make public spending more responsive to local conditions and variations in disease patterns. But it may also cause the loss of economies of scale, increasing regional disparities and a lack of critical health information.

Policy Responses to HIV/AIDS in Indonesia

Indonesia's first AIDS case was detected in 1994 and soon afterwards the country had developed its first AIDS strategy and established a national AIDS commission, provincial commissions and approximately 150 district commissions.⁹ In 2003, the government endorsed Indonesia's second AIDS national strategy from 2003 to 2007, which reaffirmed the central importance of HIV prevention while acknowledging the need to expand care and treatment.¹⁰ The strategy emphasized policy reform, capacity building, coordination, surveillance, prevention, treatment and care.

Domestic public health expenditure on HIV/AIDS was only US\$15 mln in 2006, and consumed as such only 0.36% of total public health budget in that year. Central government spent the largest parts of this (87.6%) and local government the rest (12.4%). Health expenditure from international sources equaled US\$43 mln in 2006, and as such was almost triple that of domestic public health expenditure. The international sources of funding include both bilateral (67.8%) and multilateral (32.2%) funds. Of total domestic and international health expenditure, the majority was spent

Table 1. HIV/AIDS expenditure in Indonesia in 2007

Intervention	Public Spending	International Spending	Total
Prevention	8.89%	32.08%	40.97%
Care and Treatment	0.19%	24.69%	24.88%
Orphans and Vulnerable Children	-	0.08%	0.08%
Program Management and Administration	15.91%	5.59%	21.50%
Strengthening			
Incentives for Human Resources	0.60%	7.46%	8.06%
Social Protection and Social Services excluding Orphans and Vulnerable Children	0.05%	-	0.05%
Enabling Environment and Community Development	0.88%	3.39%	4.27%
Research	0.07%	0.13%	0.20%
Total	26.58%	73.42%	100.00%

Source: NAC (2008)

Table 2. HIV/AIDS Prevalence, expenditure, and per capita health expenditure

Country*	Fiscal Year*	HIV prevalence (%) in adults (15-49), (2007)	Total Health Expenditure Spent on HIV/AIDS (in million US\$)*	Total Health Expenditure Spent on HIV/AIDS per HIV infected (in US\$)	Gov Health Expenditure per Capita (US \$)	Percentage of Domestic Fund for HIV/AIDS*	Percentage of International Fund for HIV/AIDS*
Indonesia	2006	0.2 (0.1-0.3)	57	298	17	27%	73%
Pakistan	2007	0.1 (<0.1-0.2)	5	0.15	3	36%	64%
Iran	2006	0.2 (0.1-0.3)	33	410	137	91%	9%
China	2006	0.1 (<0.1-0.2)	138,927	201	38	77%	23%
India	2006	0.3 (0.2 - 0.5)	171	69	8		
Belarus	2006	0.2 (0.1-0.3)	13	18,102	183	68%	32%

Sources: UNGASS Reporting Period 2006-2007 (NAC, 2008), WHO Statistical Information System www.who.int/whosis/data/Search.jsp, Report in the Global AIDS Epidemic (UNAIDS/WHO, 2008)

on prevention (41%), while less was spent on care and treatment (25%), management and support (22%), orphans and vulnerable children (0.1%), and other HIV expenditure (12%).⁵ The coverage of essential interventions to protect vulnerable groups of injecting drug users, sex workers, men-having-sex-with-men and prisoners remains below 10% of the target population.¹¹

To view Indonesia in international context, Table 2 compares health expenditure on HIV/AIDS in Indonesia with some Asian countries which have approximately the same prevalence rate of HIV in young adults. The table reveals that Indonesia's total health expenditure on HIV/AIDS is relatively large, but the health expenditure on HIV/AIDS per HIV infected in Indonesia is higher than in Pakistan, India, and China. The share of domestic funding, however, is the lowest.

The above expenditure patterns give rise to three concerns. The first concern relates to the low absolute levels of funding of HIV/AIDS control in the country-although HIV/AIDS is still a relative minor health

problem in terms of infected cases and incurred deaths, it carries a high risk to spread to the general population in large parts of the country if no adequate measures are taken. Hence, intensified control activities and associated increased funding are warranted in this context. The second concern is on the use of available funding. Indonesia's health expenditure is said to be often misallocated, and to be spent on capital investment instead of as the urgently needed operating cost⁶. It is difficult to judge whether this is also true for funding of HIV/AIDS control. The third concern relates to the financial sustainability of HIV/AIDS control activities in Indonesia given that the majority of funding is coming from international sources. How will the programs against HIV/AIDS be sustained once the donor or international funding stops?

In summary, the Indonesian health policy response to HIV/AIDS faces a number of challenges. The nature of the Indonesian HIV epidemic (increasing overall prevalence, with different epidemic profiles); the

characteristics of the Indonesian health system (decentralized policy making, need for efficient and equitable use of public funding), and the low and highly internationalized funding of HIV/AIDS (resulting in low service coverage and questions of sustainability) draw out a very specific health environment of HIV/AIDS.

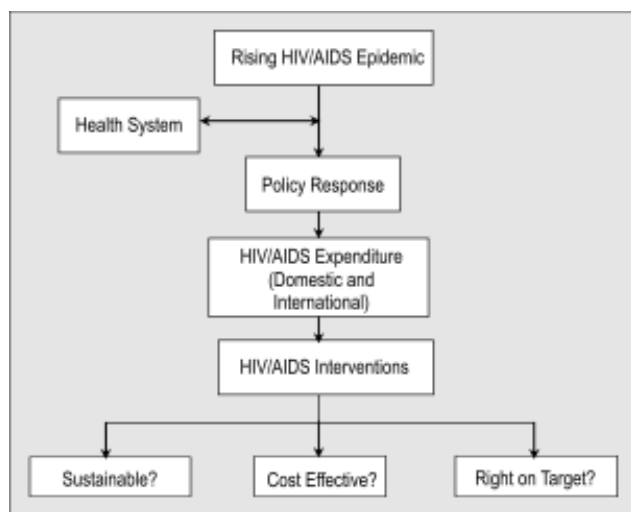


Figure 1. The relationship between HIV/AIDS epidemic, health system, policy response, HIV/AIDS expenditure and interventions in Indonesia

ECONOMIC ANALYSIS OF HIV/AIDS CONTROL

The above sections have drawn out the specific context of HIV/AIDS in Indonesia. In such a context, reliable, objective evidence on the costs and likely effectiveness of interventions to reduce it, is a key input into policy debates. Without such evidence, policies and programmes to improve health are unlikely to achieve their potential for maximizing population health levels through strategic investments in intervention options. This section highlights the use of economic analysis to stimulate evidence-based policy in health, and specifically HIV/AIDS.

Economic analysis includes both costing and cost-effectiveness analysis (CEA). Costing analysis provides detailed break-down of inputs and prices of interventions in HIV/AIDS control and can be used to improve programme management, or to predict budgetary outlays when scaling up interventions. To our knowledge, only a single economic analysis of HIV/AIDS control in Indonesia exists, focusing on the cost of providing methadone maintenance treatment (MMT) service.¹² In a one year observation period in 2006-2007, MMT service delivery costs were estimated on the basis of a micro-costing approach. Patient costs were estimated on the basis of a survey among 48 methadone

clients. A total number of 129 clients attended the MMT clinic, resulting in a total of 16,335 client-visits. Total annual societal costs of running the MMT clinic equalled Rp 1,130 mln (US\$123,672), or Rp 69,206 (US\$7.57) per client visit. Of total costs, patient costs established the largest share (65%), followed by that of central government (20%), and the hospital (15%). The present consultation tariffs cover hospital costs. Patient costs of accessing MMT services constitute almost 70% of their income. Under current circumstances, MMT services are financially sustainable to the hospital. MMT services are subsidized by the central government, and this is warranted considering the important role of the program in HIV/AIDS among IDUs. Still, the present user fee seems a barrier to utilisation, and a higher level of subsidy might be justified to reduce the cost to the patient.

CEA is an important tool in the priority setting process. In responding to the HIV/AIDS epidemic the costs and consequences of possible interventions in HIV/AIDS control must be known to the decision-makers to make best use of scarce resources¹³. Especially in the setting of Indonesia, with very limited funding available, the requirement for low-cost, effective interventions is paramount. Policy-makers and planners are, therefore, faced with the challenge of allocating limited resources among programmes. Many factors contribute to decisions about resource allocation including concerns of sensitivity, acceptability, equity and efficiency. CEA informs policymakers on the relative costs and health effects of interventions, and can be used to improve the value for money, and as such the rationale of their investments in HIV/AIDS control. It can provide answers to some of the most frequently asked questions, such as is it better to invest resources in one intervention rather than another; which type or combination of services provides the best value from the budget available; how should resources be allocated within the competing needs of AIDS control programmes; and how can extra investment best improve an intervention's performance?

To our knowledge, no CEA has been performed on HIV/AIDS control in Indonesia. The World Health Organisation, through its WHO-CHOICE (Choosing Interventions that are Cost-Effective) program has evaluated costs and health effects of HIV/AIDS control in South-east Asia.¹⁴ The study revealed that interventions focused on mass media, education and treatment of sexually transmitted infections for female sex workers, and treatment of sexually transmitted infections in the general population cost less than US\$150 per DALY, which stands for 'disability adjusted life

years', averted. School based education strategies and various antiretroviral treatment strategies cost between US\$500 and US\$5,000 per DALY averted. The conclusion was that reducing HIV transmission could be done most efficiently through mass media campaigns, interventions for sex workers and treatment of sexually transmitted infections where resources are most scarce. However, prevention of mother to child transmission, voluntary counseling and testing, and school based education would yield further health gains at higher costs but would be regarded as cost effective or highly cost effective based on standard international benchmarks. Important insight was that antiretroviral therapy is at least as cost effective in improving population health as some of these interventions. The study is of limited use as an evidence-base to health policy in HIV/AIDS in Indonesia as interventions targeting IDU were not evaluated. Moreover, the analyses were performed for South-east Asia as a whole, whereas the epidemiology in Indonesia may be distinct.

In summary, very few studies exist on the economic analysis of HIV/AIDS control in Indonesia, and as a consequence, little information is available to guide policy makers on the best use of their resources to control the epidemic.

CONCLUSION

This paper has pointed out the specific context of HIV/AIDS in Indonesia. This is characterized by an increasing overall prevalence with high risk groups as IDUs and sex workers, and a weak Indonesian health system. The low level of funding, mainly stemming from international sources, raises concerns on service coverage and their financial sustainability. In those situations of severe resource constraints, economic analyses are essential to make best use of available resources. However, such analyses are still limited in Indonesia. We, therefore, call for a broader application of economic analysis of HIV/AIDS control in Indonesia.

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