

VIEWPOINT

Lee-Nah Hsu

HIV epidemics in developing countries

Looking beyond health dimensions to the role of development

It might seem provocative to discuss HIV epidemics within a *Development Planning Review* as if such epidemics could be “planned”. However, “development” adds a crucial dimension to the spread of HIV, without development practitioners being sufficiently aware of this important dimension. The present *Viewpoint* attempts to highlight some of these development dimensions in order to advocate greater deliberate involvement of development practitioners in containing and reversing HIV/AIDS epidemics. A related objective is to advocate that researchers assist development practitioners in such efforts, even if this process requires, to some extent, the adoption of a trial-and-error approach and considerable involvement in field activities.

This *Viewpoint* does not reflect the usual academic exercise; instead, it is a “call for help”, from a development practitioner to the academic research community, based on field experience, especially in South East Asia. Although no one can predict the future course of the epidemics of HIV/AIDS, the lives of millions are certainly at stake in view of the potential of individual epidemics for further spread. If a negative outcome can be prevented through exploring interrelations between the HIV/AIDS epidemics and development factors and processes on one hand, and having positive impacts on the course of the epidemics through better development on the other, one is obliged to contribute to moving beyond mere “development” to consider the possible outcomes over time. Impact assessments exist for environmental or gender concerns, but not for the temporal aspects of development processes as they relate to the epidemics. Too often the focus of development is only on the potential economic gains; temporal health consequences are often ignored. While it is true that the temporal association of development actions with health consequences remains challenging to demonstrate, with the emergence of SARS and avian influenza, development consequences of epidemics must be explored in order to lessen the loss of potentially large numbers of animal and human lives and mitigate the concomitant effects of the losses that do occur.

Is it necessary to look beyond health-based strategies?

When one considers that HIV is a virus and AIDS is a syndrome that enables disease to bring a person to the point of death, then one naturally concludes that HIV and AIDS are the proper concern of medicine and public health. If there are many individuals infected with HIV and their numbers are growing or spreading geographically or between population groups, epidemiologists would consider that an epidemic is occurring. It is therefore natural to think of HIV and AIDS within the health paradigm and accordingly devise health-based strategies to combat them.

Such an approach has been successful against many other types of epidemics through packages including vaccination and treatment. However, for HIV/AIDS, despite the “success stories” in Uganda, Sénégal, Thailand and Brazil, which have in common that the epidemics were recognized early on and vigorously dealt with, HIV continues to spread in developing countries. It has reached such a high prevalence in some African countries that it far exceeds what was thought to be possible only a few years ago. HIV has taken off in India and China.

This could shift the epidemics' epicentre from Africa to Asia, with unpredictable global consequences in multiple sectors. HIV continues to spread in Africa despite years of information, education and communication (IEC) campaigns. Those campaigns succeeded in improving HIV knowledge considerably for populations at large and among "high risk" groups, and extensive study has gone into behavioural research and campaigns, often involving leaders. However, these efforts do not appear to have sustainably changed risky behaviour. HIV infections continue unabated. Why? A United Nations survey of knowledge of HIV and methods of protection (UNAIDS, 2004) showed that the countries with the highest HIV prevalence rates often actually had the highest levels of knowledge. Attempts at replicating the often-quoted "success stories" in other countries have largely failed, and HIV epidemics are re-emerging but in different patterns than initially was the case in Thailand and Uganda.

The doubts expressed at the International AIDS Conference held at Bangkok in July 2004 about the feasibility of producing an effective vaccine against HIV proved to be the "last straw" in the health-based approach to stemming the spread of HIV/AIDS. Nevertheless, all is not negative. There has been impressive progress in treatments, and in their affordability and accessibility. While treatment is relevant to mitigating the impact of the epidemics, it cannot reverse them or prevent them.

More than 20 years into HIV/AIDS epidemics, with tens of millions already dead and many more infected, billions of dollars spent, numerous brilliant researchers working with countless unsung heroes in hospitals and communities, it is time to ask some hard, "politically incorrect" questions. However, it should be emphasized that this *Viewpoint* is not a criticism of the health strategy or of medical research. Both are indispensable in dealing with HIV/AIDS. But are they enough? If the answer is "yes", why are the epidemics continuing to progress?

Is it just a question of degree of effort? Would more of the same health-based strategies eventually result in control of the HIV epidemics? If no vaccine is likely to become available in the foreseeable future and with 5 million people getting infected each year, would more IEC and more outspoken leaders prove to be enough? Would more money spent on implementing the same strategies be able to roll back the spread of HIV/AIDS?

Can strategies beyond those devised by the health sector be identified that would create synergy with those of the health sector in order to reverse the epidemics? This *Viewpoint* will deal with the first part of the question. However, it is too early to provide definitive answers to the second part of the question because implementation of anti-HIV development strategies are still in their early stages.

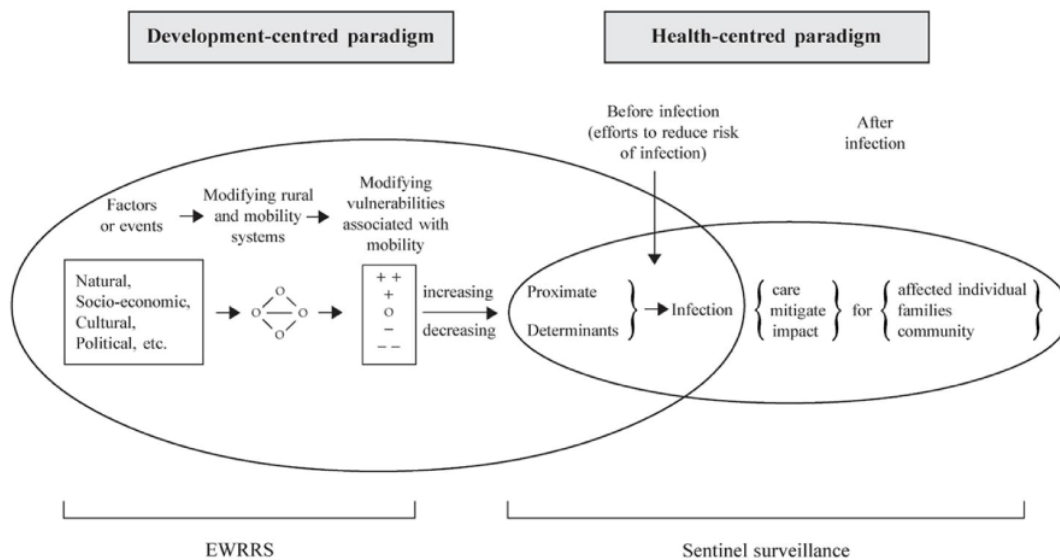
Development as a framework for HIV/AIDS research and intervention

The health-based programme framework starts shortly before the risk of infection and then accompanies the infected person through the care and treatment stage up to the person's eventual death (see the right-hand side of figure 1). The concerns of the health sector are with the proximate determinants of the risk of infection. What does this mean in practice in a developing country? Is a sex worker or a mother who needs to feed her children in a position to find alternative income other than through commercial or transactional sex? Are such women able – even if they know about HIV and its prevention methods – to impose on a client the use of a condom? The established "100% condom programme" provides women

this possibility. However, 100 per cent condom programmes are still the exception rather than the rule and do not apply to transactional sex driven by poverty that takes place daily in communities outside of brothels. As for men, is the miner or fisherman working daily in dangerous conditions concerned about a risk, the consequences of which might be apparent only 5 or 10 years later, a time for which he has no expectations in the future? How would a healthy rural migrant worker spending years away from home and her/his support network not establish new or temporary relationships?

A focus on the proximate determinants of the risk of infection, as points of intervention, tends to be too late (e.g., the girl has already been trafficked or sold to a brothel), or at least would require some prior intervention in order to be successful. This is the reason why this *Viewpoint* advocates examining development factors for diseases. For example, the responses to tuberculosis (TB) in industrialized countries have identified the role of poverty, overcrowding, poor nutrition and other socio-economic factors. Besides the purely health and medical responses, better housing and school feeding programmes created synergies with the health efforts in contributing to reducing the base on which TB could flourish. A similar type of approach is being explored for HIV/AIDS.

Figure 1: The Early Warning Rapid Response System (EWRRS) paradigm



Jacques du Guerny and Lee-Nah Hsu
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The first efforts

Research over the years has shown the impact of HIV/AIDS on development. World Bank and UNDP studies in the early 1990s attempted to highlight macroeconomic impacts. However, these impacts are not isolated. Efforts have been concentrated on sectoral impacts such as in mining or in agriculture. This approach was accompanied by assessments of impacts on communities and households showing the extent of the damage caused by HIV/AIDS beyond that measured by micro-economics, namely, family destitution and disintegration, orphanhood, etc.

The aforementioned studies highlighted the socio-economic costs of HIV epidemics beyond the health costs. They were good advocacy tools because they provided a basis from which to

mobilize resources. Still the responses they elicited tended to be from the health sector. Recognition of the potential role of development in stemming the spread of HIV epidemics was missing.

In the early 1990s, when considering overall development indicators, for example, as measured through GDP, it was tempting to use GDP growth as a solution. With the explosion of HIV in South Africa, Côte d'Ivoire and other more advanced developing countries, one noticed that GDP growth where inequality and discrimination exist actually creates conditions favourable to the spread of HIV.

The human dimensions of development are central to combating epidemics. This human development role is not immediately obvious, however. Yet, it could be identified through the concepts of vulnerability and resilience. What underlying or background development factors led individuals to expose themselves to the risk of HIV infection?

The left side of figure 1 shows some of these factors. Some natural events such as a drought are also mentioned: most agricultural societies have developed agricultural systems which are resilient, within certain limits, to natural events. Extreme events are relatively rare: in many cases the impacts of what used to be “shocks” that people could cope with can no longer be handled because of human activities such as deforestation. Such activities have led to a lack of sustainability. This led to examining more carefully the role of shocks or stressors in a society: for example, building a dam could lead to the resettlement of populations. This would cause considerable disruption and is a typical shock generating diverse vulnerabilities, including vulnerability to HIV infection. In the context of HIV/AIDS, many shocks have been identified. To some extent, they are preventable or can have reduced impacts. On the contrary, stressors which have a slow, creeping impact are more difficult to identify. Considerable research is still needed to identify them.

The contribution of development as an early warning system

National AIDS programmes monitor HIV epidemics through surveillance systems, focusing on changes in the prevalence of HIV, changes in the infection rates of commercial sex workers (CSWs), men who have sex with men (MSM), injecting drug users, or pregnant women. Until a few years ago, national AIDS authorities would have been surprised if they were told that they should be concerned about plans to build a road or a dam! The construction of a dam, for example, implies thousands of workers, mostly single young males with cash, arriving in areas where communities have often had few contacts with the outside world. Such construction crews not only can contribute to spreading HIV (and other diseases) to previously HIV-free areas, but, more importantly in the longer term, the presence of a dam completely modifies the livelihoods of people in nearby communities. One coping mechanism of communities and of households can be migration, which takes place under poor conditions, creating vulnerabilities for the migrants. Figure 1 depicts the establishment of an interface between the development and health frameworks.

Development plans or activities can thus produce impacts at some stage on the course of HIV epidemics. A word is needed here on the use of the plural in referring to HIV/AIDS epidemics. What is commonly called the global HIV/AIDS epidemic (singular) or pandemic is just short-hand for the aggregate of many different epidemics. The short-hand term is a simplification of reality, but it ends up being misleading, because it connotes the image of a massive, homogeneous epidemic that is very difficult to tackle. As one can see with the example of the construction of a dam, such a development project can contribute to creating

the conditions for a new mini-epidemic in the area of the dam where there might not have been one before. Thus, building or rehabilitating a road, or establishing a new air link are all development activities. Under certain circumstances, they can launch a localized epidemic. When one considers the global epidemic, instead of being a single enormous entity, one can break it down into a multiplicity of sub-epidemics, which can remain isolated or merge and then expand. This perspective is important, because mini-epidemics are manageable or even preventable: if building a dam or a road can start a localized epidemic, what measures need to be taken either to modify the project or to accompany it in order to generate the planned development benefits without losing them at a later stage to an HIV/AIDS epidemic in the future?

Development projects such as building a dam or a road take years of planning and implementing before they are finished. If one recognizes them as an “early warning signal”, then there is lead time to think through the entire process, i.e., the stages and the steps that can be taken by or with whom. Some may think that the days of the large infrastructure projects are over, but in China and South East Asia this is not the case. The entire region is being integrated through transport and trade networks, which also link up with other regions in a globalized economy.

What kind of mechanism links development activities to HIV/AIDS?

This is an area which needs further research, but some mechanisms have already been identified. An example is provided through an obvious link: mobility systems. Such large-scale development projects as roads and dams involve mobile migrant workers and contribute to population movements from the communities and households affected by them. Migrants are but the most visible part of a mobility system that is generated by development activities. It is important to note this because migrants are often stigmatized as the vectors responsible for the spread of disease. In reality, such a role represents a half truth. If a virus needs people’s movement to get around, ranging from sex tourism to the seasonal migration of farmers or the demobilization of troops after a war, migrants often are not the guilty ones in providing such movement. More commonly, they would not be infected at their place of origin, but become infected at the place of destination, i.e., after the movement has been completed as would be the case with any resident of a society. Furthermore, being a vector does not necessarily entail responsibility. For example, in the case of a woman (or man) engaging in transactional sex with a visiting high-level government official or a businessman, who then is/are the vectors and the ones responsible?

Stigmatization and assigning blame are not helpful in responding to HIV/AIDS: one has to recognize the reality of the diverse forms of human behaviour and situations. This requires consideration of not just the migrants but the mobility system of which they are a manifestation; it is the system that needs to be identified and “treated”. Such treatment can range from preventive education coordinated between the areas of origin, transit and destination to organizing the safe and cheap transfer of remittances. Through such an approach, it is possible to identify a development activity and the related mobility system, i.e., two areas in which it is possible to intervene.

Development activities as instruments against HIV?

The initial responses to HIV were health and medical ones. It took some time before the international community became aware that development activities and processes could themselves contribute to controlling HIV epidemics. Initially, the health sector requested the development sectors to conduct health education activities in order to extend the outreach of the health sector. Development sectors generally did not adopt this approach; the mixed results of family planning in the agricultural sector show why they did not do so. It is more acceptable to explore ways through which a development sector could better perform its own mandated functions while achieving some HIV-prevention objectives. This meant that the agricultural sector should concentrate on agriculture, not on health-related work*. Agriculture could be developed in a way which would reduce the vulnerabilities of rural populations and build their resilience. If such an approach is acceptable to the development sectors, the health sector is sometimes hesitant about it because of unfamiliarity with the development sectors or because it might have less control over HIV responses. There are also concerns that resources could be diverted from the health sector. In reality, by engaging the development sectors in responding to HIV, the effect of the total resources available is actually increased.

An example from the construction sector

A good example is provided by the construction sector. The UNDP South East Asia HIV and Development Programme (SEAHIV), set up in 1999, facilitated the establishment of a model clause (du Guerny and Hsu, 2002) to be inserted into contracts for building large-scale infrastructural projects in South East Asia. This clause focuses on development sector involvement in the fight against HIV/AIDS. It is important to understand how the innovative *model contract clause* idea emerged, was refined, endorsed and implemented for development planning.

The process: SEAHIV initiated a series of projects involving the mapping of HIV vulnerability based on population movement in South East Asia (Chamberlain, 2000; UNDP/UNOPS and NCHADS, 2000; UNDP *et al.*, 2000; UNDP *et al.*, 2004). One of the vulnerability factors identified from the mapping projects was population movement associated with the construction of infrastructure; however, to that time there had not been any concrete responses to reduce such vulnerability. Countries in the region proposed what is now widely known as the Chiang Rai recommendation. It was adopted by the ASEAN Task Force on AIDS in November 1999. To facilitate the implementation of the Chiang Rai recommendation, SEAHIV and its partners developed “toolkits” for construction contractors. The *model contract clause* is part of the toolkits (ADB, 2002) so funding agencies and contractors have a readily available instrument on which to base their negotiations.

Two aspects of the model contract clause deserve to be highlighted here:

- *Mobilization of resources:* The resources allocated for HIV/AIDS activities are provided by a non-health sector. They represent new resources generated by the private construction sector and by donors. These new and additional resources are small in comparison to the funds involved in infrastructural construction projects, but are significant in comparison to existing HIV/AIDS national programmes.
- *Establishing partnerships:* The model contract clause brings together the national AIDS programme, the Ministry of Construction or Public Works, the firms in the private sector as well as donors: for example, the Asian Development Bank (ADB), the World Bank and the Swedish International Development Cooperation Agency (SIDA). It should be noted that this corresponds to **Goal 8 of the MDGs: Developing a**

* Refer to: <<http://www.fao.org/hiv aids/>>.

global partnership for development as well as **Goal 6: Combating HIV/AIDS, malaria and other diseases** (United Nations, 2000). Such partnerships can result in more balanced ways of attaining development, both economic as well as human, under the principles of governance.

An example of intergovernmental cooperation

As previously mentioned, a dimension of the development perspective crucial to HIV/AIDS is population mobility. Until it was closed down at the end of 2004, SEAHIV was a regional programme covering the ASEAN countries, China and more recently (2002) Timor-Leste. Under the Programme, it soon became clear that HIV epidemics knew no borders and that it is critical to promote regional cooperation in order to make effective interventions. In this context, SEAHIV promoted regional cooperation: a Memorandum of Understanding (MOU)¹ was signed in 2001 by the countries comprising the Greater Mekong Subregion (GMS) on cross-border cooperation in HIV/AIDS. Although the MOU was signed by Ministers of Health as the focal points of their countries' national AIDS programmes, it provides the basis and legitimacy for *development* strategies against HIV/AIDS.

That MOU facilitated collaboration along the border between Myanmar and China at Ruili (du Guerny, Hsu and Cao, 2003) and collaboration to reduce HIV vulnerabilities along the border between Guangxi and Viet Nam, as well as between Hekou in Yunnan Province of China and Laocai in Viet Nam.

The first MOU recognized mobility as a legitimate and relevant issue for HIV/AIDS programmes; it was valid for two years and ended in 2003. Based on the positive outcome of this collaboration, the GMS countries decided to renew and further strengthen their cooperation. A new MOU and its accompanying Joint Action Programme were developed and signed recently by the participating countries for a further five years (2004-2009). The MOU is aimed at fostering collaboration in building regional HIV resilience, in particular through promoting “development strategies that reduce HIV vulnerabilities...caused by development-related mobility”.

The MOU calls on the signatory countries to “apply the Early Warning Rapid Response System at the local, national and regional levels through intra- and inter-country multi-sectoral collaboration”. A list of sectors for collaboration is provided: agriculture, construction, finance, health, home affairs, labour, public works, public security and transport.

The *regional* MOU is important because development strategies are national ones and borders often represent the interface between contrasting situations that result in considerable population movement and, to some extent, sex work. The official recognition of HIV vulnerabilities associated with population movement as such is a step forward for fostering regional socio-economic development.

The new MOU recognizes the need for development activities to be designed in such a way as to reduce vulnerabilities to HIV/AIDS and to build resilience against HIV/AIDS. Of course, this requires multisectoral strategies. In this connection, the wide range of development

¹ Memorandum of Understanding for Joint Action to Reduce HIV Vulnerability Related to Population Movement between The Kingdom of Cambodia, The People's Republic of China, The Lao People's Democratic Republic, The Union of Myanmar, The Kingdom of Thailand and The Socialist Republic of Viet Nam (2004-2009), <<http://www.hiv-development.org/publications/MOUII.htm>>.

sectors which are called upon to participate should be noted. It also recognizes the need for a development-based early warning system besides the existing health surveillance system.

Conclusion

Based on experiences in South East Asia, it has become clear that effective responses to HIV/AIDS require multisectoral efforts through multi-disciplinary partnerships as reflected in the Millennium Development Goals to which 189 Member States of the United Nations committed themselves to achieve by 2015. The regional dimension of HIV/AIDS responses is critical in view of the ever-increasing mobility of people in the globalized economy.

Support and promotion of research to document the dynamic interactions of development, associated population mobility and accompanying HIV vulnerabilities as well as effective responses to tackling the mobility dimension of HIV vulnerability could inform policy makers and strategic planners as well as programme designers so that they could better innovate and strengthen collaborative efforts to mitigate the socio-economic impacts of HIV/AIDS. Applying the governance principles of transparency, access to information, participation, strategic vision, etc., would enhance the possibility of countries being able to achieve the Millennium Development Goals of reducing the burden of AIDS and other diseases in the world.

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