ICT and HIV/AIDS Preventive Education in the Cross-border Areas of the Greater Mekong Subregion Project: A Model on the Use of ICT in Preventive Education

Paper presented at Asia-Pacific Workshop of Academic Parliamentarians on Education, Population, & Sustainable Development

Convened by the Asian Forum of Parliamentarians on Population and Development (AFPPD), Ao Nang Villa Resort, Krabi, Thailand, 8-9 March 2005

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Background

The Greater Mekong Subregion (GMS) comprises Cambodia, the Lao people’s Democratic Republic (Lao PDR), Myanmar, Thailand, Vietnam, and Yunnan, province of China – all of whom share the Mekong River and also all are confronted by the problem of HIV/AIDS. Of the estimated 40 million people living with HIV/AIDS (PLWHA) worldwide at the end of 2003, more than seven million are reported to be from Asia and the Pacific. Almost two million of these are from the GMS countries Cambodia, Lao PDR, Myanmar, Thailand, Vietnam, and Yunnan province of China. UNAIDS report states that as of the end of 2003 the number of adults (15-49 years) and children living with HIV in four of the countries included in the Project are as follows: Cambodia- 170,000; Lao PDR- 1,700; Thailand- 570,000, and Vietnam- 220,000. China is reported to have an estimated 840,000 cases, half of which are in Yunnan province. New infection cases are increasingly found among women who also bear the responsibility of caring for those living with HIV/AIDS. In 2001, 290,000 children (0-14 years) were orphaned by HIV/AIDS in Thailand compared with 75,000 in 1999; 22,000 in Viet Nam; and 55,000 in Cambodia compared with 13,000 in 1999. Although the national adult HIV prevalence is still low in Lao PDR (below 1 percent) its proximity to drug trafficking routes, increasing integration with the region and high STI levels in some populations could facilitate the spread of the virus.

Among the youth, HIV is considered as one of the biggest threats. It is reported that (UNAIDS/UNICEF/WHO, 2004) - a total of 10 million aged 15-24 years are living with HIV at the end of 2003, 20% of which are found in Asia. Several factors that increase their vulnerability to HIV include lack of HIV information, education, and services as well as adolescent experimentation and curiosity, coerced sexual relationship, and gender inequalities.

The regional economic cooperation through the "economic corridor” approach has opened borders and stimulated economic activity such as tourism, special production and trade zones. This has resulted to increase flow of populations across borders with major implications for both the
epidemiology and prevention of HIV/AIDS. The influx of primarily male workers along the borders creates a demand for sex work that is usually met by the local communities. These border areas also provide easy access to injecting drugs. In other cases, people from nearby poor communities cross the borders, get infected with HIV and upon their return serve as bridges of HIV transmission in their home communities along the borders. To summarize, the factors that facilitate the spread of HIV in Mekong include availability of drugs for injecting drug use, the sex industry, migration and mobility, poverty, stigma and lack of opportunities for women.

There is still no cure for AIDS and vaccines are still being developed. Thus success in reducing the spread of the virus depends on changing behaviours and addressing the environmental and socio-economic factors that increase people’s vulnerability to the infection. For example, delaying the onset of sexual activities among adolescents, with special emphasis among the girls is a major contributing factor in preventing the spread of HIV through sexual contact. Another important factor is resisting peer pressure to take or inject drugs. The earlier the youth can be reached by preventive programs, the greater the hope of changing the course of the epidemic.

The Role of Preventive Education

The school-based preventive education programme plays a major role in prevention activities especially for the youth. It is a key approach for a comprehensive prevention and care programme. In addition, the school setting offers a ready made infrastructure for the delivery of preventive education. It can reach large number of young ones long before they get to be sexually active. The use of the skills-based approach in preventive education enhances the development of life skills that enable the youth to make healthy decisions to protect them from HIV/AIDS and also improve their educational and economic opportunities.

The school more than any other institution, can reach further into the community. This is an important consideration since significant proportions of the youth with increased vulnerability to HIV are out of school. Furthermore, preventive education for the community through the schools allows provision of coordinated messages for the community and the school population.

In all of the participating countries, policies/enabling statements of the Ministries of Education are in place to support implementation of preventive education for HIV/AIDS in the school setting. These policies mandate the implementation of HIV/AIDS preventive education in all levels i.e. primary, secondary, and tertiary. In a number of countries, HIV/AIDS preventive education is also implemented in teacher training institution.

In Cambodia, a policy and strategy for integration of HIV/AIDS for “in and out” of school youth is included in the Education Strategic Plan of the Ministry of Education Youth and Sports (MoEYS). A decree of the Ministry of Education and Training (MOET) of Vietnam calls for the strengthening of HIV/AIDS preventive education. A provincial regulation of Yunnan province requires all schools to carry out HIV/AIDS preventive education. In Lao PDR, an AIDS Education Team in the Ministry of Education was established in 1996 to be responsible for the implementation of its preventive education following the organization of a multi-sectoral National Committee for the Control of AIDS (NCCA). The policy of the Ministry of Education in Thailand emphasizes the right of children to understanding and realization of HIV/AIDS danger.

The implementation of preventive education in the school setting is undertaken through curricular and co-curricular activities. The curricula of the countries were revised to integrate HIV/AIDS concepts in a number of courses/subjects and life skills approach is currently being utilized. The courses involved include health education, biology, civic and moral education, and languages. AIDS education team comprising members coming from different departments of the Ministries of Education were formed. However, the coverage, and scope of implementation vary from country to country. Moreover, there are several issues and concerns that affect its effective and efficient implementation. Two of these concerns are appropriateness of teaching/learning materials and teaching methodologies.
The Use of ICT

The use of ICT in HIV/AIDS preventive education can promote fundamental improvements in teaching and learning. Creative, interactive, integrated and contextually appropriate ICT-based interventions can enhance the teaching/learning process. Materials developed together with the learner can address issues specific to the school population. Furthermore, ICT-based educational materials can be stored for ready access on demand, allowing for more flexible use and self-paced learning. Nonetheless, it should be emphasized that mere exposure to ICT is not an end goal. ICT interventions should be integrated into broader educational processes. ICT stimulates higher order cognitive learning like problem-solving through creative projects involving all students both in the classroom and co-curricular activities.

To date, the use of ICT for HIV/AIDS preventive education is not maximized in all GMS countries. It is envisioned that it can address the two most pressing issues in implementation of preventive education: to improve the teaching/learning environment and methodology and allow for the development of appropriate materials right at the implementation level with little cost.

ADB-SEAMEO Project

The Asian Development Bank (ADB), as part of its regional technical assistance to promote human development and poverty reduction in the Greater Mekong Sub-region (GMS), provided technical assistance amounting to $1,000,000 to support a regional project on ICT and HIV/AIDS Preventive Education in the Cross-Border Areas of the GMS (TA 6083) for an 18-month period beginning March 2003. The Southeast Asian Ministers of Education Organization (SEAMEO) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) were appointed Executing Agencies for implementation of the Project each with its own sub-project component amounting to $500,000. The SEAMEO Component of the Project was implemented by the SEAMEO Secretariat, SEAMEO TROPMED, SEAMEO INNOTECH and SEAMEO SEAMOLEC in partnership with participating GMS countries (Cambodia, Lao PDR, People’s Republic of China [Yunnan Province], Thailand and Vietnam). It focused on expanding the use of information and communication technology (ICT) and other multimedia technologies by teachers for HIV/AIDS preventive education in schools in selected cross-border sites of the GMS.

Goals

This ADB technical assistance has two development goals i.e. (i) to reduce incidence of HIV/AIDS infection among vulnerable age groups, poor and marginalized population groups; and (ii) to expand the use of ICT and other multimedia technologies in HIV/AIDS preventive education.

The objectives of the Project are; (i) to develop ICT learning materials for HIV/AIDS preventive education in local languages; (ii) to build capacities of teachers, health workers, multimedia providers, and other stakeholders for HIV/AIDS preventive education; (iii) to expand the use of ICT interventions in HIV/AIDS preventive education; and (iv) to deliver ICT-based interventions to isolated, marginalized, and vulnerable populations. There are two international organizations designated as executing agencies, one for each of the two project components, SEAMEO (Southeast Asian Ministers of Education Organization) and UNESCO.

The SEAMEO’s component focuses primarily on teachers and in-school youth and addresses indirectly the communities where the selected schools are located. This component of the Project was implemented in nine border areas between the five participating countries i.e. Cambodia, Lao PDR, Thailand, Vietnam and the Yunnan Province of PRC. A total of 36 lower secondary schools, two schools per side of the border, were included in the Project.

Project Sites

The project was implemented in nine border areas between the five participating countries. These border areas were selected collectively by the five national teams in consideration of a number of
factors. These include potential for spread of the infection, magnitude of the need for preventive education, and presence of an enabling environment e.g. absence of border conflicts, commitment of local authorities, related HIV/AIDS activities in place.

In terms of socio-economic conditions the local population in the selected borders belongs to the poor sector of society. In addition, these areas are active in terms of mobile population crossing borders for economic reason. However, the presence of economic activity also resulted to the increasing presence of establishments catering to commercial sex. In one of the Cambodian border, casinos and other entertainment establishments are the primary source of economic activity.

The high vulnerability to HIV of these borders is shown by the presence of HIV cases. In Cambodia, the prevalence rate of HIV in the three provinces involved among sex workers are 37%, 51% and 36% respectively, while among pregnant women, the rates are 4.4%, 3.3% and 1.7%. In Lao PDR, 38 cases have been reported in the two provinces involved which represent about 3.13% of the total cases reported for the whole country. In Thailand, a total of 709 cases are reported in the three provinces involved, while in Vietnam, the five provinces have 211 cases. Furthermore, in the six schools of Thailand, there are 36 HIV/AIDS affected students. In Yunnan, exact figures are not available in the project sites. However, qualitative reporting of the stakeholders in the project validated presence of a number of cases along the borders.

Reaching the minorities was also considered in the selection of the border areas. For example in Lao PDR, there are about 36 ethnic groups in the four provinces involved out of the 49 groups present in the whole country. In Yunnan, significant proportions of the population of the four schools are minorities. Figure 1 and Table 1 show border areas involved in the project.
**Table 1: Selected Border areas in five countries involved in the project**

1. Koh Kong, Cambodia border with Trad, Thailand  
2. Bantaey Meanchay, Cambodia border with Sakeo, Thailand  
3. Svay Rieng, Cambodia border with Long Anh, Vietnam  
4. Phongsaly, Lao PDR border with Lai Chau, Vietnam  
5. Luang Namtha Lao PDR border with Muong La, Yunnan  
6. Borikhamsay, Lao PDR border with Ha Tinh, Vietnam  
7. Saravan, Lao PDR border with Ubon Ratchathani, Thailand  
8. Ha Giang, Vietnam border with Malipo County, Yunnan  
9. Lao Cai, Vietnam border with He Kou County, Yunnan

A total of 36 secondary schools, in most cases two schools per side of the border, were included in the project.

**Inputs**

The project’s inputs include: (i) situational analysis of the sites and schools (ii) training of national trainers in a regional centre for the enhancement of their skills on instructional design development, use of ICT tools (Word processing, Presentation, Spread sheet, Video) and hands on production of prototype ICT based materials; (iii) provision of basic ICT equipment to the five national teams and 36 schools; (iv) training of classroom teachers implementing preventive education on use of ICT and development of learner generated materials at the school level; (v) materials development; (vi) delivery of ICT enhanced preventive education in the school setting; (vii) community preventive education; (viii) development of data base for the SEAMEO component; and (ix) monitoring.

**Outputs and Outcomes**

The outputs of the Project are:

A. One regional and five national training curricula and manual on the local language for use of ICT in preventive education;  
B. 10 national trainers’ ICT capability strengthened;  
C. 614 classroom teachers trained on the use of ICT which is much higher than the targeted number of 200, 57.82% % of whom are females;  
D. a total of 650 computer generated print materials like flyers, brochures, newsletters, posters and pop-up materials; 207 PowerPoint presentations; 15 video in the local languages ; 79 ICT based interactive games; 8 VCD of folk songs; and 6 radio scripts for local community;  
E. 26,679 students reached by ICT enhanced preventive education of whom 46.79% are females;  
F. an estimated 100,000 community members reached by community preventive education activities in the border sites;  
G. ICT capability of 36 schools and five national teams strengthened; and

H. Web-based project database developed.

**Other intangible outcomes of the project are:**
(i) establishment of the culture of ICT among the 36 schools, thus contributing to the reduction of the ICT divide;
(ii) higher morale and satisfaction of teachers delivering the program;
(iii) increased interest and participation of students;
(iv) higher commitment of school officials and community leaders and members on the project and school programmes as manifested by the provision of financial support to build infrastructure to house the ICT hardware, provision of electricity to a number of schools in Lao PDR to accommodate the ICT equipment, and their participation in school-community activities;
(v) strengthened partnership between health and education sectors at different levels;
(vi) upgraded local capacities for decentralized responses to emerging issues at the communities initiated;
(vii) cross-border activities and bilateral cooperation between countries initiated;
(viii) access to poor marginalized population along the border areas; and
(ix) access to girls and women in the school and communities and addressing their need to reduce their vulnerability to HIV.

What can be learnt from the Project?

The HIV/AIDS preventive education is most needed among the poor and marginalized people. Poverty can never be eradicated as long as people do not know how to lead a healthy way of life and protect themselves from basic diseases. By concentrating on border communities, the Project brought new methods in learning to the people that need them most.

The Project was localized and run by people who knew the local needs, especially in relation to language and ethnic values and beliefs, resulting in local ownership and, hopefully, sustainability of its outcomes. As the local people develop their own understandings of HIV situation and their own solutions to the problems, a tradition of learning was instigated.

At the forefront of the activities would be the schools, that are strengthened as Community Learning Centres. The ICT use was not isolated in computer rooms, but part of school curricula and communal activities, addressing health issues of collective concern.

The most desirable outcome would therefore be the development of an ICT culture that corresponds to a form of life skills in handling information, acquiring knowledge, using knowledge and information in social communication and interaction, and making an intelligent use of ICTs in the process. It is an important part of the global efforts to build HIV resilient communities everywhere.