Multisectoral Responses to Mobile Populations’ HIV Vulnerability
examples from People’s Republic of China, Thailand and Viet Nam

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FOREWORD

This is a compilation of specific responses to mobility from the China-Myanmar border, Thailand and Viet Nam. It demonstrates the essential role multisectoral partnership has in contributing to an effective and sustainable impact for reducing community HIV vulnerability.

The key to averting the progression of development associated HIV epidemics is to implement the Early Warning Rapid Response System in the region (first paper). Save the Children UK, China presents the Ruili holistic programme – at the China-Myanmar border – which has been selected by the United Nations System in China as a good practice model (second paper). The fishermen’s vulnerability to HIV is another reflection of challenges faced by economic gaps between neighbouring countries (third paper). For construction worker’s HIV prevention, it has been found that peer education is more effective than health educators (fourth paper).

These lessons sharing is part of the on-going documentation on multisectoral plans and actions in South East Asia on HIV vulnerability reduction for mobile population by UNDP South East Asia HIV and Development Programme since its inception in December 1998.1

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1 For more information on the Programme: http://www.hiv-development.org.
# TABLE OF CONTENTS

Foreword ....................................................................................................................................... iii

I. Early Warning Rapid Response System in HIV/AIDS: an overview ................................... 1
   *By Jacques du Guerny*

   1. Introduction ......................................................................................................................... 1
   2. The background for an EWRRS ......................................................................................... 1
      a) Uneven progress ......................................................................................................... 1
      b) A paradox ................................................................................................................... 2
   3. The objective of the EWRRS.............................................................................................. 2
      a) The System approach .................................................................................................. 3
      b) Early Warning ............................................................................................................. 3
      c) Rapid Response ........................................................................................................... 7
   4. Conclusion .......................................................................................................................... 8

II. Building blocks for a multisectoral community response to HIV vulnerability reduction in Ruili, Yunnan, China ................................................................................................. 9
   *By Kellie Wilson*

   1. Advocacy and awareness raising ...................................................................................... 11
   2. Capacity building .............................................................................................................. 11
   3. Prevention ......................................................................................................................... 12
   4. Care and support ............................................................................................................... 12
   5. Migrant community interventions ..................................................................................... 13
   6. Looking to the future ........................................................................................................ 13

III. HIV/AIDS prevention and care for mobile populations ................................................... 15
   *By Promboon Panitchapakdi*

   1. Introduction ....................................................................................................................... 15
   2. Who are the mobile populations? ..................................................................................... 15
   3. Participatory planning ....................................................................................................... 16
   4. Identifying risky behaviours and their causes ................................................................... 16
   5. Source, transit or destination programmes ........................................................................ 17
   6. Lessons learned through interventions ........................................................................... 17
      a) Peer educators ........................................................................................................... 17
      b) Information and education materials ........................................................................ 17
      c) Gatekeepers ............................................................................................................... 17
   7. Misconceptions ................................................................................................................. 18
   8. Gender consideration ...................................................................................................... 18
   9. Systemic changes ............................................................................................................. 18
   10. Monitoring and evaluation .............................................................................................. 19
   References ............................................................................................................................. 19
IV. Impact of peer educators versus visiting health educators on HIV knowledge and risk behaviour of migrant construction workers in Ho Chi Minh City, Viet Nam

By Philip Guest, Vu Ngoc Bao, Julie Pulerwitz, Le Thuy Lan Thao, Duong Xuan Dinh, Tran Thi Kim Xuyen

1. Introduction ........................................................................................................................................................................ 20
2. Background ............................................................................................................................................................................. 20
3. Vietnamese context .............................................................................................................................................................. 21
4. Interventions ........................................................................................................................................................................... 22
5. Research design ................................................................................................................................................................. 23
6. Results ..................................................................................................................................................................................... 24
7. Conclusions ............................................................................................................................................................................ 29
References .................................................................................................................................................................................. 30

Publication list ............................................................................................................................................................................. 31

1. Introduction

At a time when the future courses and impacts of the various HIV/AIDS epidemics unfolding in South East Asia are still under debate, the responses to the potential threats have varied. Some countries consider the action they are taking is commensurate with the information available. In view of the high stakes, some other AIDS programmes are following a precautionary approach. They are going beyond the common prevention, mitigation and care activities by taking action on the basis of an Early Warning Rapid Response System (EWRRS). A presentation of the EWRRS has been published. Since the May 2000 meeting which first discussed the EWRRS, the HIV/AIDS situation has considerably evolved in South East Asia. It is therefore worthwhile to revisit the concept of EWRRS: its rationale as a system and why it is important to observe what is happening in the region from different perspectives, especially from a development perspective. Then the main characteristics of the system are considered, as well as the dovetailing of the early warning part of the system to the response part once the warning has been recognized and judged to justify action.

2. The background for an EWRRS

a) Uneven progress

On the medical side of HIV/AIDS, considerable progress has been made in treatment and care. For example, treatment has shifted from just AZT to multiple therapies and has been combined with changes in nutrition and life style. However, in other aspects of the response to the epidemic, progress has been very uneven. While information alone is crucial, as demonstrated by anti-smoking and anti-alcohol campaigns, it is often insufficient to change behaviour. This is further confirmed by the fact that many of the developing countries with the most knowledge about HIV also have very high HIV prevalence rates. Despite the very understandable desire to highlight “success stories”, the sad fact is that these are still too few in number, except perhaps at the micro-level.

Can South East Asia ignore the trends in Africa? The countries that have been hit hardest and fastest are the more developed countries of the continent such as South Africa, Botswana, Zimbabwe and Côte d’Ivoire, all of which are undergoing rapid change through urbanization, modernization of agriculture, more efficient transportation systems and large migration flows. Many experts did not take these conditions sufficiently into account. They observed prevalence rates of HIV/AIDS in sentinel sites, but that is like observing the light that reaches earth from the stars — our reaction is then responding to the epidemic as it was, rather than as it is or preventing what it could become. Decision-makers in South East Asia should be aware that ten years ago, most experts thought it impossible that prevalence rates could ever reach over 25 or

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30 percent in a number of African countries. Similarly, although the conditions listed above are also present in South East Asia, many are reluctant to believe that the epidemic could hit Asia to the same extent that it has occurred in Africa. Can one really be certain of this? With stakes so high, i.e. millions of lives, would it not be wise to apply the principle of precaution and invest in primary prevention through tailored development activities, thereby attacking the root causes of risk behaviour?

b) A paradox

There is a paradox: we recognize that HIV/AIDS requires a multisector and multidisciplinary approach - precisely the reason behind the creation of UNAIDS. However, when we look at the present activities in HIV/AIDS work, we must wonder whether this knowledge has been translated into practice, policies or programmes. When we ask the agriculture sector or the transport sector to take on Information, Education and Communication (IEC) work, is that what they should be doing? Is that the only way they can contribute? Rather, should we not work with these sectors with the objective that they change the way agriculture is practiced and transport is organized in such a way that the vulnerabilities of farmers, drivers or passengers to HIV could be reduced respectively? This may be a more effective intervention for these sectors and would also forge a stronger partnership between the two. Of course, it is difficult, but the millions of lives at stake and the welfare of populations are worth the effort. In any case, such an effort of giving more importance to the human dimensions of development would be of benefit to populations such as rural populations.

As the recognized “best practices” have not been enough to stop the epidemic, perhaps we should step back and forget our preconceived ideas and try to examine things with a very open mind. Do we just have to do more of the same or do we also need to harness the strengths of development sectors? This should not be misunderstood to discard current activities, but rather to complement them. We should harness new forces and attack the epidemics with true multisectoral strategies. Such an approach takes time, but the epidemics are here to stay for the foreseeable future.

3. The objective of the EWRRS

It is in this context that the Early Warning Rapid Response System (EWRRS) can be of use. This is neither a panacea nor a magic bullet. It is an instrument which can assist in using one’s knowledge and experience to do more practical research for policies and programmes and to develop new and more effective strategies for the societies and regions which one knows and understands best. Characteristics of the EWRRS can be broken down into three major components: 1) System, 2) Early Warning, and 3) Rapid Response.

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3 For some “multisector” means partnerships between different types of actors (rather than sectors), e.g. governments and NGOs. In this paper, “multisector” means development sectors outside of the health sector, e.g. agriculture, transport or construction.

a) The System approach

The rate and form of transmission of the virus depends on many factors ranging from psychological to macro-economic forces. No one can deal with all of these factors and each one is not equally important. To make informed choices about the most effective plan of action, it is necessary to simplify… without oversimplifying, of course.

The first step is to identify the most significant factors and model their interactions. In South East Asia this has been done from a health perspective, rather than from a development one, for various population groups such as injection drug users (IDUs), commercial sex workers (CSWs) and youth, through developing strategies of needle exchange, 100% condom use, etc. which all aim at reducing the immediate risk of infection. However, these populations are not isolated, thus it is essential to recognize that we are dealing with a multitude of epidemics that interconnect, perhaps through more or less visible hubs. Together, they form complex systems which must be understood in order to be effectively disabled. By identifying the right points and types of interventions within a specific epidemic or at the interface of epidemics, the efficacy of these systems in spreading the disease can be reduced.

Identifying the systems, components, dynamics, interfaces and the possible and effective interventions is not an easy task. However, once one can grasp the system dynamics, one may find that there are many potential allies who can assist in intervening, but who are neither aware that they can be of help nor in what ways.

The system approach identifies the connections between subsystems and components and analyses the dynamics and their possible outcomes. The EWRRS enables a closer look at background factors and their connections that together increase risk of exposure to HIV infection. In turn, identifying these crucial background factors and their synergies through their interconnections can assist in devising and implementing interventions to disable the systems fuelling the spread of HIV. A real-life example of the EWRRS outside of the field of HIV/AIDS can be found in the use of fire regulations in the construction of buildings (spacing, materials used) in order to prevent the occurrence of fires (i.e. the development approach), however the fire brigade is essential when a fire actually happens (the health approach). This is described in more detail in the June 2002 meeting report of the EWRRS.

b) Early Warning

1) The diagram

The diagram presenting the EWRRS is reproduced here in Figure 1. For a complete explanation, please refer to the original publication (see note 1). Recall that there are two basic paradigms

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6 *From Early Warning to Development Sector Responses*, UNDP South East Asia HIV and Development Programme, 2003, in print.
which complement each other: i) the development paradigm on the left side of Figure 1 which focuses on background factors (for example, a drought) which influence the possibility of high-risk behaviour, possibly resulting in HIV infection; and ii) the health paradigm (on the right side of Figure 1) which begins when development tapers, comes into play upon risk of immediate infection followed by treatment and care. In the following sections, one will discuss background factors and the role of development activities as indicators of early warning, i.e. the left side of the diagram.

2) The development sectors

In South East Asia, there are several factors of development which influence the spread of the epidemic. The two most significant factors for the South East Asian region are agriculture and the transport network. Both factors interrelate and can create synergies that fuel the spread of HIV. Following is a brief presentation of these macro systems at work.

i) Agriculture

Agriculture is a major development factor that can be indicative of possible future vulnerabilities to HIV. The issues relating HIV and agriculture will not be discussed here. However, more details can be found in publications by FAO and UNDP SEAHIV. The following remarks are

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limited to the example of upland rice. The two farming systems related to upland rice (see farming systems 4 and 5 in Figure 2) represent several hundred million people. Both systems are vulnerable to undesirable weather events. Among the two systems, the Highland extensive mixed system (number 5 in the map) is particularly dependant on rainfall and not nearly as resilient as the Upland intensive mixed system. That is to say, the 50 million farmers and their families farming in the Highland system are highly dependant on the vagaries of nature and are particularly vulnerable. In the past, these systems had been rather isolated, but as economic integration takes place through better transport, poor farmers are in danger of losing to competition from irrigated rice systems (especially lowland ones) and will look for other sources of income to escape poverty. Thus, such areas under farming systems 4 and, in particular, 5 shown in Figure 2 become source communities of migration, sex workers, etc.

iii) Transport development

Transport development is another significant factor in South East Asia’s development. As shown in Figure 3, the key development axis, growth areas and industrializing zones are located on the seaboard, as opposed to the zones of poverty located in the interior of the continent. The need for labour in these seaboard areas creates a pull zone for the rural work force to migrate from their source communities in search of employment. These seaboard areas are connected by a vast maritime network and an increasingly efficient and expanding grid system of roads. Construction projects for road infrastructure development are integrating the countries and linking roads, sea lanes and waterways through hubs to ensure smoother delivery of goods and services, but also of people from place to place. While this will entail greater economic prosperity in the region, it will facilitate the movement of negative influences, such as drug trade, HIV epidemics or SARS.
National AIDS programmes need to take such macro-level trends into account because of their role in spreading HIV. In practice, it can mean finding out available national or local timetables for infra-structure improvements. The timetable and geographic location of the planned infrastructure activities provide an early warning for areas that could become vulnerable in the future if no action is taken, as well as provide the lead time available for prevention. For example, suppose village X is going to be linked to a major road in three years time. Two choices are presented to us: 1) wait to take note of the possible future increase in HIV prevalence, or 2) try to prevent it. This early warning provides us with three years in which to implement a strategy tailored to this particular situation before it is too late.

iii) The mobility systems

The third important factor is represented by the mobility systems. For example, upland rice farming creates vulnerabilities for poor farmers, the seaboard zones of development act as magnets on the rural poor, and the development in transport facilitates rural-urban migration. Finally, the migration systems put in place by the migrants within the broader context just outlined, enable them to actually move from their sending areas, via transit communities, to receiving ones. A number of the rural poor move to areas where they hope to have opportunities to simply survive if not to escape poverty. The development objective is not to deprive the rural poor of such opportunities but, through appropriate development activities, to enable them to improve their situation in their own community and/or migrate under better conditions under the assumption that rural-urban migration will continue. Such an improvement in conditions is necessary to reduce the migrants’ vulnerability to exploitation and improve their chances for employment.

iv) Integrating agriculture, transport and mobility systems

The integration of these factors of development can result in both positive and negative outcomes. However, one certainty is that the lives of millions are changing rapidly, creating crises and opportunities, winners and losers and much vulnerability. Without being

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deterministic, a valid fear is that with such upheavals, the conditions for large epidemics are being set in place. Will knowledge of the risk of infection be sufficient to possibly save millions of lives if other factors creating vulnerability to HIV infection remain unchanged?

If one doubts a positive answer to the previous question, then other questions can be raised; some of which have received very little attention unfortunately. For example, at the macro-level, can development be engineered to improve the living conditions of entire populations rather than that of selected groups or to compensate geographical disparities? Income and spatial disparities are often considered unavoidable during take-off stages in development. This thinking needs to be reconsidered in light of the costs and impacts of HIV/AIDS. Once one takes into account the costs and impacts of HIV then reducing background vulnerabilities becomes a concern. Another important question is how development interventions can prevent specific or localized epidemics from merging into becoming a pandemic.

At the micro-level, is it possible to modify the conditions under which communities are exposed to the outside world so they may be better prepared for the changes contacts will bring?

From a sector perspective, how can actors of change, such as construction or transport firms set up partnerships with agriculture and education sectors to reduce background vulnerabilities of rural communities while achieving their economic goals?

c) Rapid Response

Once it is recognized that a change can lead to the spread of HIV in the future, what can be done about it? As stressed, the issue is to reconcile development objectives with interventions designed to disable key components that fuel the epidemics as well as to prevent the merging of specific or localized epidemics into becoming a pandemic. It’s a bit like building a space rocket. Various parts must be designed to meet constraints of size and weight, resistance to heat, etc., and then they must be assembled in a certain sequence. In a rocket, as experience has tragically shown, the smallest nuts and bolts are as important as large components. Similarly, the smallest subsistence farmer ignored in most development strategies can be important for the future of an HIV epidemic. HIV/AIDS reminds us that development is about humans and not just about GNP. Once an early warning identifies a change that will
occur, the parameters for a response must be defined and elaborated, as described in Figure 4. Some key aspects are mentioned here\textsuperscript{10}.

Several steps in preparing a response are necessary. For example, the previously described macro-level developments taking place in South East and East Asia should be considered as early warnings. Naturally, action cannot be taken on such a scale and therefore one has to identify crucial locations (e.g. hubs) or activities (e.g. construction of a dam) and then proceed to a precise and specific diagnosis of the factors for which one can and should intervene. Once a diagnosis has been made, it is possible to then identify the parameters which need to be taken into account to formulate a response: what should be done, where, with whom and in what time frame? After this stage, one is in a position to design the response itself by elaborating a strategy and securing commitment for its implementation by the appropriate actors.

4. Conclusion

The paper has discussed the macro-level forces at play in the South East Asian region which, while promoting regional economic development and integration, have a potential downside if they result in the spread of HIV/AIDS.

The developments taking place in the region sound an early warning at both the regional and national levels although HIV prevalence levels might still be considered generally low. If one follows the rationale of an EWRRS, now is the time to respond to the potential threats identified – a possible “collateral” damage of gaps in development – at all appropriate levels, including local, with the goal of reducing them and building resilience. The synergies between development and health responses should greatly increase the overall effectiveness against HIV/AIDS.

\textsuperscript{10} This section is elaborated upon in *From Early Warning to Development Sector Responses*, UNDP South East Asia HIV and Development Programme, 2003, in print.
II. Building blocks for a multisectoral community response to HIV vulnerability reduction in Ruili, Yunnan, China

HIV has significant social determinants and consequences. A purely health response to HIV is simply not adequate. HIV impacts all sectors of the community. Therefore, any response to HIV requires all sectors of the community to join in a collaborative response. Without the support of the community as a whole, significant gaps will not be addressed. The need for collaborative and multisectoral responses to HIV at all levels of government and community bears emphasis.

Save the Children UK (SC(UK)) China Programme has been working on HIV/AIDS in China since 1995 and has identified HIV as a strategic issue for its work. This work in China has culminated in a five-year project to implement a multisectoral approach to HIV/AIDS, working in partnership with local communities and government. The key to this work has been multi-faceted agencies working together to respond more effectively to HIV.

This five-year plan, which aims to develop into a model for implementation of multisectoral approaches throughout China, is operating in Ruili County, Yunnan Province in South West China. Ruili, which is located at the Myanmar border, was one of the first recorded sites of HIV in China. The population size is approximately 110,000. Like elsewhere in China, Ruili is home to a great diversity of ethnic populations, which comprise over 60% of the local population. These ethnic groups include Dai, Jingpo, De’An and Lisu which adds a new challenge to working on HIV within communities. Other factors affecting HIV in Ruili County include migration (both internal and cross border), trade routes, cultural practices and beliefs, poverty, an established sex work industry and its proximity to drug manufacturing areas in Myanmar.

SC(UK) HIV work in Ruili County conducted a Knowledge, Attitude and Practice (KAP) survey with young people which examined their awareness of HIV/AIDS since 1995. This research showed an alarming lack of knowledge and awareness. Following this survey two middle schools in Ruili County became participants of the Yunnan School Based HIV/AIDS Prevention

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1 This project could not be undertaken without several key players; firstly, the people of Ruili who have stepped forward and are implementing proactive responses to HIV. This project is also made possible with the support of SC(UK), UNDP South East Asia HIV and Development Programme, UNAIDS SEAPICT, Ford Foundation, and the Barry & Martin Trust.
Peer Education Project, which involved the training of teachers and young people to build a network of youth peer educators for improved access to HIV preventive education and life skills information. Further research has been carried out since in Ruili in response to the growing cross border migrant populations, especially youths and children. These research highlighted the need for intervention to ensure access of young people to information, knowledge and services to better protect themselves. In 1999, with funding from DFID and AusAID, several projects were established to respond to HIV, including health education with high risk groups, condom distribution, government and community awareness raising, provision of medical services and the establishment of the Ruili Women and Children’s Development Centre (RWCDC).

The foundation of this current five-year project is built on these previous works. The project is under a joint partnership between the Ruili Government and Save the Children UK China Programme with ongoing technical and structural support through the Ruili HIV Leading Committee. The committee is composed of several key agencies including the Office of Yunnan Provincial Leading Group for HIV/AIDS Control, Yunnan International Non Government Organisation Office (YINGO), the Dehong Prefecture Government and the Dehong Prefecture Women’s Federation. This committee, which consists of over 15 different Government units, is the first step and foundation for the multisectoral response to HIV in the community. This group is responsible for overall project implementation and monitoring.

Managing the day-to-day operations of the intervention work is the Ruili Project Management Office, which consists of the Director of the Public Health Bureau, SC(UK) China Programme staff and administrative personnel. This office coordinates the project activities and is the focal point for the implementing agencies. (Figure 2)

At the implementing agency level, the true nature of the multisectoral approach is evident. The diversity and range of agencies involved at the local level allows this project to shift the focus from health issues to a concern for the community as a whole. The agencies actively involved at the ground level of intervention implementation include:

- City Government
- Public Health Bureau
- Propaganda Department
- Youth League
- Anti-Epidemic Station
- City Drug Centre
- Public Security Bureau
- Women and Children’s Development Centre
- Communist Party Committee
- Women’s Federation
- Education Bureau
- Judicial Bureau
- Foreign Affairs Office
- Drug Control Bureau
- Civil Affairs Office
The overall goal of the current project is to build local capacity for effective responses to HIV prevention and care to reduce HIV/STI risk and enable people living with HIV to receive care and support. The approach centres on four strategic themes: 1) prevention and risk reduction; 2) treatment and care; 3) advocacy and awareness raising; and 4) capacity building. Each year the project will build on work undertaken in previous years, with the early focus on building capacity, raising awareness and undertaking specific interventions. As awareness is raised and capacity is strengthened, further interventions will be examined and implemented.

The agencies actively involved mentioned above form a collaborative network on the four thematic areas, and although not mutually exclusive, provide a framework for project implementation.

1. Advocacy and awareness raising

The leading committee convenes quarterly, providing an opportunity for all government units to be updated on the planning and review of activities. This is an opportunity to improve knowledge and awareness of HIV across all sectors. The Ruili Women and Children’s Development Centre also produce newsletters on project work which are distributed to all government units. The aim of the newsletter is to improve HIV awareness within the community. A range of study visits have been undertaken to examine alternative models of HIV responses, thus opening the door to new possibilities. In 2002, Ruili has seen a shift of focus from working with specific high risk groups to awareness raising within the general community. It has expanded its range of activities including: using the media, reporting, information sharing and collaboration.

2. Capacity building

The Ruili community can be proud of its proactive HIV responses. Supplemented with a series of capacity building initiatives, including study visits and a range of training and development programmes, the capacity of the local community to respond to HIV has been strengthened. The
project activities include project management training, evaluation and monitoring, research, Information, Education and Communication (IEC) and social marketing, telephone and hotline counselling, child rights, financial management, and specialist HIV care and prevention. While these activities built capacity and skills of partners in Ruili, it is evident that training alone is not sufficient. Capacity building must be multi-faceted. Therefore, capacity building in Ruili has also included medical mentoring, on-site training, study exchange visits and improving access to resources and materials. Networks have been established with national and international organisations working on HIV to assist in capacity building.

3. Prevention

In 2002, a range of prevention and risk reduction activities have taken place with specific target populations and the general community. Creative activities include health education classes, school-based activities, children’s artwork, knowledge competitions, condom distribution, health prescriptions, outreach and World AIDS Day Campaign. The project has also expanded prevention in rural communities. A highlight was a project to examine drug and HIV preventive education with young people in villages through local networks, e.g. media and drama groups. Youth peer educators developed culturally appropriate IEC materials. Another key initiative was using peers to reach target groups, e.g. youth, drug users, commercial sex workers (CSWs), and migrant community members.

4. Care and support

The partners in the Ruili project have been working together to improve care for people living with HIV as well as to reduce the stigma and discrimination felt by people living with and affected by HIV. Although the current situation is a far cry from total community acceptance, great progress has been made in improving the access to good quality services, including both medical and psychosocial needs. The Care Clinic of the Ruili Women and Children’s Development Centre provides general clinical services while strategically providing services on HIV and STI’s. The Centre provides outreach services, training for other health workers, counselling and hotline services, psychosocial support and unlinked HIV testing in partnership with the Ruili Anti-Epidemic Station. Inroads are also being made into improving the overall medical and care responses by other medical and care organisations in Ruili. With the increase of community interest on the project, a group of people set up the Red Ribbon Ambassadors. The ambassadors are volunteers working in the community on prevention, care and support and awareness-raising to reduce discrimination.
5. Migrant community interventions

A key focus of the Ruili project is the identification of the special needs of migrant communities in Ruili. There is significant cross-border migrant community in Ruili, which brings with it special challenges. By working with local migrant communities and gate keepers, SC(UK) has assisted in raising awareness; improving access to health information for migrant populations including migrant sex workers; improved the provision of condoms to high risk groups; and worked together on Children and Women’s Day activities. SC(UK) also supported the local community in establishing a Migrant Resource Centre, which provides schooling and non-formal education to migrant children and young people, library services, health education classes for high risk groups, community meetings, reference materials and exhibitions and space for community members.

6. Looking to the future

Future work in Ruili will continue to build on these foundations and support other communities through sharing and learning from the project in undertaking multi-sectoral responses to HIV. SC(UK) held a Project Management Training Programme and Planning forum with representatives from the different implementing agencies. Priorities identified are as follows:

- Drug and HIV preventive education among young people in villages;
- Utilising Women’s Federation networks for preventive education among women;
- Continued advocacy, awareness raising and capacity building;
- Exploration of community based orphan programmes;
- Development of models for home based care;
- Improving psycho-social care for people living with and affected by HIV; and
- Building on peer education programmes with young people, drug users and CSWs.

China is facing the growing toll of HIV in terms of human life, quality of living, and economics. The Ruili model can be seen as at the forefront of responses to HIV. The achievements to date are founded on the dedicated, caring and committed people of Ruili who have come together to respond to HIV in a multisectoral way. These achievements include:

- Functional and active multisectoral approaches to HIV;
- Greater local ownership and direction of the project;
- Improved networking and relationships;
- Establishment of a volunteer network – The Red Ribbon Ambassadors;
- Improved scope for community HIV education & awareness raising;
- Extensive utilisation of the media to improve prevention and care messages;
- Outreach activities including medical care, support, and education;
- Greater beneficiary involvement in planning and implementation of activities;
Improved commitment to work with migrant communities; and
Greater capacity for local project management and planning.

A range of individuals, groups and organisations have visited Ruili to learn from the experiences. It is critical for all those working on HIV to share their experiences and learn from each other. Although some of the lessons learned are specific to Ruili, many experiences are transferable to other communities:

- It is critical for all communities to begin HIV prevention and care now.
- HIV prevention and care is multisectoral and must include all elements of the community. The stakeholders include government, community leaders, beneficiaries and project partners.
- The responses to needs should be locally driven rather than by NGOs or funding agencies.
- National and international NGOs and other partners are to facilitate the responses of local communities.
- Together, the community can raise awareness, prevent discrimination and improve care for people living with or affected by HIV/AIDS.
- Collaboration between NGOs, government and community is central to any success in prevention and care.
- Involving partners and beneficiaries to actively participate in the entire process from project development to implementation and evaluation is the foundation for project ownership and sustainability.
- A holistic response to HIV includes prevention, treatment, care and support and it is a good practice model for future replication in China.
- Project work must build a resource base of local expertise and improve access to factual, relevant information on HIV related issues, including medical and psycho-social factors, along with project management skills and information.
- Multi-faceted capacity building and advocacy with partners and the community are critical factors to maintaining sustainable development.
- Alleviation of discrimination and ignorance about HIV are the foundation of all HIV responses.
- HIV responses will not be effective without examining the factors of gender, poverty and migration.

A multisectoral approach is the ultimate foundation of all HIV responses within any community. It is critical to ensure that all aspects of HIV, including the determinants and the consequences, are addressed by examining not only the health/medical issues but also the range of social, psychological and environmental aspects.
III. HIV/AIDS prevention and care for mobile populations

1. Introduction

It has long been recognized that the spread of HIV between communities and countries has been linked to population movements. HIV is transmitted from person to person and not through air, water or from animals. This presentation shares lessons learned in providing HIV prevention and care services to mobile population.

2. Who are the mobile populations?

General groups which received attention of HIV prevention programmes include:

* **Truck drivers** – they have unprotected sex at many stop/rest points along their truck routes.

* **Seafarers** – both on fishing boats and cargo ships. Their risky behaviours take place at various ports of calls.

* **Sex workers** – with regular movement from place to place.

* **Cross-border populations** (traders, travellers) – in areas where there is a high volume of cash flow it is not uncommon to find commercial sex establishments.

* **Migrant workers** (men and women) – who are from other countries or who come from rural areas within the country.

* **Uniformed services** – have rotational assignments and military camps attract various businesses including commercial sex to the area near the camp sites.

* **Refugees** - those live in camps or along border areas between countries.

AIDS prevention programmes should focus on those populations that have increased HIV vulnerability as a result of risky behaviour triggered by their mobility or interaction with mobile populations. For example:

- Increased independence when away from family, “home” or social settings;
- Increased cash income of migrant workers (both domestic and international);
- Influence of peers or peer cultures such as drinking alcohol or drug use;
- Occupational factors, such as seafarers that have long periods of time without sex while at sea; and
- Limited access of illegal migrants to health education and services for sexually transmitted infections.

3. Participatory planning

Participatory research is considered a good practice in HIV/AIDS programme planning. Participatory research involves bringing in stakeholders as part of the research team or study process for design, data collection and interpretation of findings. Programme planners often make the mistake of “assuming” that they know enough about the target population and develop an AIDS prevention programme with little research. This is a critical mistake when dealing with both cross-cultural populations and people with the same language and national culture. There are “subcultures” that are unique for each population group which are not easily identified by an “outsider.” In addition, travelling people engage in circumstantial behaviours. For example, young men travelling often have an expectation of having sex with a local person, most often with a sex worker. This is an attitude based on curiosity and novelty thus not solely based on physical need which happens due to the circumstances of being away from home.

Findings emerged based on participatory research are as follows:

- Seafarers and truck drivers seek sexual partners at different rest points where they pass through.
- Men often visit sex workers as a way to release work stress.
- Men travelling alone tend to have a higher level of risky behaviours than men travelling with family.

4. Identifying risky behaviours and their causes

Often research stops at identifying “risky behaviours”. For effective programme planning research needs to go beyond identifying risky behaviours to explaining what factors are influencing or leading to the risky behaviours. Sometimes the factors are sub-cultures of the mobile population. In other cases, it could be the context of the new environment that influences risky behaviours – such as the number of entertainment centres at a port city. Only by addressing these influencing factors, one can attempt to make long term changes in attitudes and behaviours of the population group. This is true for any population, but particularly critical when working with mobile populations.
5. Source, transit or destination programmes

There is an increasing number of programmes which are trying to reach mobile populations not only at the destination such as construction sites, industrial centres or seaports – but also at the source communities of the mobile population that may be in a rural area or in a different country. Still other programmes try to reach mobile populations in transit – that is at a cross-border town. These are all valid choices provided that initial research has been conducted leading to the development of an effective strategy to reach and influence behaviours of the mobile population at a particular point of the population movement continuum.

6. Lessons learned through interventions

a) Peer educators

Due to differences in cultures, languages or background, it is wise to use peer educators for information and education activities rather than attempting to communicate directly. Peer educators are normally volunteers who are members of the community or target populations. The peer educators undergo training in small groups using participatory techniques. The peer educators in turn use similar techniques with their colleagues or friends. Peer educators are most effective when training is done in brief, regular sessions. Learning from past programme experience, it is advisable to plan training for peer educator replacements, as there is a high turnover among the peer educators reflecting the mobile nature of the population.

b) Information and education materials

Working with peer educators alone would be insufficient due to the ratio of peer educators to the size of a population group. An information strategy should be used to reinforce person-to-person contacts. The effectiveness of information and education depends on how the materials are selected or developed. Experience showed that participatory techniques that involved the target group in identifying key communication messages for prevention, and the media for presentation and its design, increased the effectiveness of communication.

c) Gatekeepers

It is important to recognise the gatekeepers of mobile populations which can be barriers for reaching the target population. Gatekeepers are key individuals that, by virtue of their occupation, position or social status, have influence on the accessibility to the target group. Boat owners, for example, are key gatekeepers in reaching fishermen. Brothel owners are gatekeepers in reaching sex workers. Often immigration police or local officials are important gatekeepers. By gaining the commitment of gatekeepers, it greatly increases access to the target group.
7. Misconceptions

A lesson learned from the Border Area HIV/AIDS Prevention Project, CARE International, was that it felt that it was OK for programme planners to make decisions on behalf of the target group without actually consulting the target group. The project team used what they felt the target group would think, and determined why they behaved in one way or another. When CARE was developing AIDS prevention posters for Cambodian fishermen in Trad province, some of us among the project team felt for sure that the Cambodian migrant workers would prefer posters showing Thai movie stars since Thai television and video movies are so common in border towns. Other team members felt that the posters should show cartoons or drawings since this is very popular among Thai youth. However, during participatory research, it showed that the team’s preconceptions were misconceptions and that the migrants actually preferred pictures of real people who were Cambodian’s rather than Thai movie stars. The team would have made a serious mistake if it had not asked the target group what they felt when developing the communication material.

8. Gender consideration

Programmes for mobile population often focus on the male population, assuming that the majority of migrant workers are men and they are the ones that engage in risky behaviours. Both assumptions may be faulty depending on the occupation of the mobile population. Thailand has a large volume of female workers flowing from rural areas to the large industrial base in the central and eastern regions. There are also a large number of women travelling in the service and entertainment industries. These are normally young women or adolescents that are travelling for the first time with little, if any, guidance from older relatives in the family. As a result they are at risk, particularly in engaging in unprotected sex, of exposing themselves to sexually transmitted infections including HIV, unwanted pregnancies, violence and rape.

9. Systemic changes

Although the risk of HIV infection is mostly a result of individual behaviours, there are “systemic” factors that have influence on these behaviours. Systemic factors refer to company regulations, governmental rules, laws or common practices or non-practices. One study found that the level of involvement in risky behaviours among fishermen, is dependent on how much money the fishing company provides as allowance and pay at the time the fishermen are on shore leave after long journeys. The more cash a simple man has in hand, the higher the involvement in risky behaviours. Thus it is reasonable to consider that if all companies paid less cash during...
shore leave there would be less risky behaviours. The remainder could be paid upon the fishermen’s return to home.

Some of these changes may relate to access to medical treatment, confidentiality, and appropriate care of HIV infected persons and the observation of human rights, particularly as it applies to illegal migrant workers. These are all issues needing to be ensured.

10. Monitoring and evaluation

A programme must have adequate monitoring to avoid implementing a programme that cannot be evaluated. Unfortunately, it is difficult to monitor and evaluate programmes dealing with mobile populations. Firstly, mobile populations are mobile so they often do not stay in one place long enough for monitoring and post-evaluation activities. Secondly, there are language barriers which make evaluations, particularly those using questionnaires, impractical. Thirdly, there are often sensitivities that may make the mobile population feel reluctant to provide information due to their vulnerable status – e.g. undocumented migrants. This is not to say that evaluation is not needed. Qualitative techniques that are carefully planned may be more feasible.

References

IV. **Impact of peer educators versus visiting health educators on HIV knowledge and risk behaviour of migrant construction workers in Ho Chi Minh City, Viet Nam**

1. **Introduction**

As the HIV epidemic in Viet Nam increasingly enters the general population through transmission involving heterosexual intercourse, more attention is being placed on promoting preventive behaviour among populations considered most vulnerable to HIV. Migrant populations, including mobile construction worker populations, are among those considered most vulnerable to contracting HIV and contributing to its spread. In Ho Chi Minh City, the locus of the epidemic in Viet Nam, efforts have begun to target prevention activities at migrant worker populations. However, these activities reach a relatively small number of the target population and provide little more than basic information to workers. Local authorities want to scale-up their efforts but require information on the most effective way to expand their programmes.

This paper reports on the results of an evaluation of two interventions designed to promote prevention behaviour among mobile construction workers in Ho Chi Minh City. The study was undertaken in 2001/2002 in conjunction with the Labour Union of Ho Chi Minh City and the Ho Chi Minh City Provincial AIDS Committee (HCMC-PAC).

2. **Background**

Mobile populations have long been recognized as important links in the geographic spread of HIV. Throughout Africa and Asia, highly mobile populations such as truck drivers have been the focus of HIV prevention efforts. The rationale for focusing on these groups is that the social context associated with their employment increases the likelihood of them engaging in high-risk behaviour and hence exposes them to an increased risk of contracting HIV. At the same time they can serve as a link in spreading HIV into dispersed populations. There are increasing efforts to translate the expanding body of research findings on the relationship between population mobility and HIV/AIDS into effective programme and policy responses. Interventions, most involving the provision of Information, Education and Communication (IEC) to migrants, have begun in a number of Asian and African countries (Sullivan 1997; CARAM 1998). In 2000, Shtarkshall and Soskolne (2000) published a monograph on programmatic approaches to developing HIV interventions for mobile populations. The focus they adopt is on educational programmes for migrants.

Policies directed at individuals that attempt to lessen the HIV vulnerability of migrants, typically aim to change the behaviour of migrants. This can be undertaken through providing information...
and/or skills to migrants. Such approaches implicitly assume that it is characteristics and attributes of migrants that determine levels of HIV vulnerability. However, it has now become more accepted that what is crucial in the relationship between population mobility and HIV is the context in which behaviour takes place. UNAIDS (2001), in reviewing issues related to population mobility and AIDS, while focusing on migrant-centred approaches also stress that contextual factors need to be taken into account in programme responses.

Such responses have led to the call for programmes to take a broader perspective when dealing with mobility. This is most clearly seen in interventions that focus on geographical areas rather than on individual migrants. These areas are typically defined in terms of high levels of mobility and risky behavior. UNAIDS (2001), in reviewing the use of this approach in the African context, refers to risk zones. These areas may be large (entire communities) or be geographically focused, such as bus stations. Similar approaches in Asia have focused on identifying ‘hubs’ or ‘hot spots’, which typically are centres where there are high levels of mobility, where interventions can be targeted. This has seen the development of programmes that target border communities. Skeldon (2001) argues that the identification of hubs is useful for programme purposes but does not go far enough in that it misses how the hubs are linked together and hence how the epidemic is diffused.

Skeldon (2000), in making a similar call to focus on mobility as a process rather than on individual migrants, argues that the best way for programmes to reduce the vulnerability of migrants is to build into development programmes that linked to high levels of mobility targeted activities that seek to reduce HIV transmission. These activities would not focus on migrants but rather the populations, including migrants, affected by development.

One strategy for addressing the needs of migrants, while at the same time focusing on the context in which migrants live, is to focus intervention efforts at the workplace. Migrants are typically concentrated in a few occupations. In many cases, for example in the construction industry, they may live and work at the same site. By focusing HIV/AIDS prevention efforts at those workplaces where migrants are concentrated it is possible to reach large numbers of migrants whilst at the same time targeting a crucial component of the environment in which migrants spend a large portion of their time.

3. Vietnamese context

The first HIV case in Viet Nam was detected in Ho Chi Minh City in December 1990. As of November 1999, all of Viet Nam’s 61 provinces had reported cases of HIV infection. Of the total of 16,457 cumulative HIV cases, approximately one-third (5,187) were reported from Ho Chi Minh City. Although the contribution of Ho Chi Minh City to HIV cases in part is related to the much larger number of HIV tests undertaken in Ho Chi Minh City compared to other provinces, results from the sentinel surveillance system of ‘risk groups’ also indicate a higher prevalence in Ho Chi Minh City as compared to other provinces in the surveillance system. Linada and others (1997) suggest that Ho Chi Minh City is at the forefront of the epidemic in Viet Nam and reflects what other areas may soon experience. Ho Chi Minh City has a much more varied epidemic than most other provinces of Viet Nam, with heterosexual intercourse being a significant and growing mode of transmission (Chung and others, 1998). There are
rapidly rising HIV prevalence rates among sex workers in Ho Chi Minh City and among men who receive services from STI clinics.

The National AIDS Committee in Viet Nam has identified mobile populations as being important target groups for HIV prevention activities. In Viet Nam, internal population movements have undergone significant changes since the opening of the economy commenced in late 1986. From a system where most movement was of families moving between rural areas, a situation has now emerged where a significant migration flow is of young, single workers moving, often for relatively short periods of time, from rural to urban areas (Guest 1998). The destination of much of this movement is Ho Chi Minh City, the largest city in Viet Nam, and the site of much of the foreign investment that is driving urban expansion. Estimates of the number of migrants to Ho Chi Minh City are in the range of 70,000 to 100,000 annually, and it has been estimated that migrants comprise up to one-quarter of the two million workforce of the city. Large proportions of the migrants work in the construction industry, in manufacturing and in services.

4. Interventions

With the financial support of the HCMC-PAC, the Ho Chi Minh City Labour Union in 1998 initiated a project designed to increase HIV/AIDS knowledge and preventive behaviours among construction workers and other mobile groups in the city. The programme uses volunteer health educator teams to visit mobile workers at their work sites and provide IEC to workers. They distribute leaflets (provided by HCMC-PAC), discuss the leaflets with the workers, and distribute condoms when requested. The great majority are university students (90 percent), with more than half female. They work part-time and receive a small allowance (5,000-10,000 Dong [35-70 cents] a trip), largely for transportation costs.

While it is perceived that the health educator programme has achieved many successes, the Labour Union and PAC officials recognize that the current method has some serious limitations. There is a high dropout rate, with 80 percent of health educators leaving within 6 months to one year. As most health educators are students, when they graduate and obtain employment it is difficult to maintain their involvement and interest. This necessitates constant recruitment of new health educators, and the frequent training of new batches of health educators (at least 4 times per year). In addition, the programme itself is designed so that limited time is spent with the workers (approximately 1-1.5 hours per visit), and the existing time is utilized to provide information, as opposed to support risk reduction skills. The health educator either approaches workers during breaks off-site, or the labour union seeks the permission of “team leaders”, supervisors of groups of workers, in allowing health educators on-site, but there is no attempt to actively involve the management. As the management is never engaged in the process, a commitment to workplace education programmes is never developed.

The weakness of the existing programme led the Labour Union and PAC to investigate other possible approaches. They expressed an interest in developing and implementing a more comprehensive workplace HIV/AIDS preventive intervention but because of the perceived positive impact of the visiting health educator programme and its low cost they wanted to compare the impact of the current health educator programme with a more comprehensive
intervention before deciding on what approach to focus on. Accordingly, in 2001, the Horizons programme worked with the Labour Union and PAC to design a comprehensive programme.

The expanded workplace programme that was developed had multiple components that complemented one another. This intervention focused on actively involving managers to support an HIV/AIDS education programme and a peer education programme focused on skill building. Condoms were distributed through the peer educators and they also provided information about where STI treatment and care services were available. Condoms were also made available from boxes in common areas of the construction sites so that construction workers could freely take them.

The targeted education component utilized peer educators to undertake behaviour change communication and condom promotion among construction workers that facilitated an environment supportive of HIV risk reduction. In this targeted intervention, approximately one peer educator per 20 workers was recruited per site. Peer educators discussed HIV/AIDS, taught safer sex practices, answered questions, and discussed fears, distributed pamphlets and other materials, including condoms, provided information about the availability of STI services, and generally tried to foster an environment of greater awareness and understanding about the disease. Peer education workshops utilized participatory approaches, including role play, brainstorming, group discussions and educational games, drama and song. The peer educators gave presentations to large groups, held small interactive group discussions and conducted “one-to-one” informal counselling sessions. The meetings and distribution of condoms occurred during the workday, mainly during break periods. Most peer educators focused their activities on their own work teams. Due to considerable turnover in staff of work teams this resulted in a large number of workers being exposed to the interventions.

5. Research design

The research for assessing the implementation and outcome of the interventions employed a quasi-experimental design with two intervention arms. One arm involved sites where the health educator intervention was used and the other arm included sites in which the peer educator intervention was being implemented.

The Labour Union conducted a mapping exercise to prepare for a selection of construction sites for the project. Seven Labour Union officials undertook mapping. It took about one and a half days to complete. Information was obtained from construction site managers, guards and workers. They were told that the Labour Union was planning a project on HIV/AIDS for workers.

Mapping took place in 19 of the 22 districts (17 urban districts and 2 suburban districts) in Ho Chi Minh City. Three suburban sites were excluded because of their distance from the centre of the city. Every construction site with more than 50 workers was included in the database. This resulted in 53 sites being selected. Three were excluded (one was about to finish, two others were involved with road construction) from consideration, leaving 50 eligible sites. Of the 50 sites, 25 sites with less than six months duration left for construction (after March 2001) were excluded. Of the remaining sites there were three sites that belonged to the same company. Two
of these sites were randomly selected and omitted from the listing. Of the remaining 23 sites, 12 were randomly assigned to the peer educator arm and 11 were randomly assigned to the health educator arm. The order of contact within each of the arms was then randomly determined. Six sites agreed to participate in the peer educator arm and the first six sites agreeing to participate in the visiting health educator arm were selected.

Three rounds of surveys were conducted. The first survey was undertaken immediately before the intervention commenced in July 2001, the second survey was carried out six months later in December/January 2002, while the final survey was conducted in June/July 2002. Surveys were undertaken at the sites where the interventions were being implemented. As all the health educator sites closed down around the time of the second round survey, with one site closing before the survey, six new health educator sites were chosen for the last six months of the project. These new sites were not connected in any way to the original sites and were chosen purposefully. The workers at the new sites were not workers involved in the original sites therefore they were newly exposed to the interventions. Because of this reason, the analysis presented in this paper will concentrate on the first two rounds of data collection.

The sampling of workers for the surveys employed the following design. A baseline survey, taken immediately before the start of the intervention, was undertaken with all workers in each site of the two arms interviewed. As a result, the research team interviewed 742 workers from eight peer education sites and 502 from six health educator sites. A follow-up survey was undertaken six months after the intervention commenced. In order to control for company characteristics we tried to keep the proportions sampled from each site of two arms the same as the baseline survey. For the second round the research team interviewed 751 workers from peer education sites and 505 from the visiting health educator sites. At the third round, undertaken 12 months after the commencement of the intervention, the research team interviewed 363 workers from the peer education sites and 211 from the visiting health educator sites. Not all workers at the sites were exposed to the interventions. Therefore analysis is stratified by whether workers did or did not have contact with the intervention.

Because some workers were not able to read or write, the surveys were conducted using face-to-face interviews. The main drawback of using face-to-face interviews, apart from cost, is that the quality of data on sensitive behaviours is likely to be compromised. We attempted to reduce this problem by extensive efforts at sensitising workers to the objectives of the research and stressing the anonymity of the interviews. In-depth interviews were also held with ten construction workers from each arm after 12 months of the intervention. The workers were asked questions related to their contact with peer educators or health educators, their perceptions of the interventions, and suggestions for improving the interventions. Questions were also asked about their risk behaviours.

6. Results

The results presented in Table 1 show that workers in health educator sites, compared to peer education sites were significantly more likely to be male, have higher levels of education, be single, younger and to have lived in Ho Chi Minh City for a shorter period of time. These differences were maintained over the three rounds. Overall, workers were most likely to be
male, have a low secondary level of education, were aged in their late twenties, were equally as likely to be single as married, and resided in Ho Chi Minh City for two years or less.

Table 1: Socio-demographic and contact with intervention characteristics by survey round and intervention arm

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Round 1</th>
<th>Round 2</th>
<th>Round 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PE</td>
<td>HE</td>
<td>**</td>
</tr>
<tr>
<td><strong>Sex (%)</strong></td>
<td></td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>Male</td>
<td>81</td>
<td>90</td>
<td>**</td>
</tr>
<tr>
<td>Female</td>
<td>19</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td><strong>Education (%)</strong></td>
<td></td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>Primary or less</td>
<td>39</td>
<td>22</td>
<td>**</td>
</tr>
<tr>
<td>Lower secondary</td>
<td>44</td>
<td>47</td>
<td>**</td>
</tr>
<tr>
<td>Higher secondary or More</td>
<td>17</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status (%)</strong></td>
<td></td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>Currently married</td>
<td>52</td>
<td>40</td>
<td>**</td>
</tr>
<tr>
<td>Never-married</td>
<td>45</td>
<td>58</td>
<td>**</td>
</tr>
<tr>
<td>Formerly married</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Duration in Ho Chi Minh City (%)</strong></td>
<td></td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>Less than 6 months</td>
<td>28</td>
<td>32</td>
<td>**</td>
</tr>
<tr>
<td>6-24 months</td>
<td>20</td>
<td>24</td>
<td>**</td>
</tr>
<tr>
<td>25-60 months</td>
<td>19</td>
<td>17</td>
<td>**</td>
</tr>
<tr>
<td>61+ months</td>
<td>34</td>
<td>27</td>
<td>**</td>
</tr>
<tr>
<td><strong>Mean Age (+/-SD) Years</strong></td>
<td></td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>29.0 (10.2)</td>
<td>29.4 (10.1)</td>
<td>30.6 (10.0)</td>
<td>**</td>
</tr>
<tr>
<td><strong>Contact with intervention (%)</strong></td>
<td></td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>No</td>
<td>27</td>
<td>43</td>
<td>**</td>
</tr>
<tr>
<td>Yes</td>
<td>73</td>
<td>57</td>
<td>**</td>
</tr>
<tr>
<td>N</td>
<td>742</td>
<td>502</td>
<td></td>
</tr>
<tr>
<td><strong>Mean months (+/-SD) contact intervention in last 6 months for exposed</strong></td>
<td></td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>na</td>
<td>na</td>
<td>na</td>
<td>**</td>
</tr>
<tr>
<td>N</td>
<td>551</td>
<td>286</td>
<td></td>
</tr>
</tbody>
</table>

* p < .05; ** p < .01; na: not applicable

In the six months prior to the second round survey, 73 percent of workers at peer education sites had contact with the peer education intervention, with the mean number of months of exposure being 4.6. In contrast, only 57 percent of the workers at the health educator sites were exposed to the health educators with the mean length of exposure being only 3.7 months. Levels of exposure in the six months before the third round survey declined to 61 percent for the peer
educator sites and 45 percent for the health educator sites. The mean number of months of exposure in the six month period before the third round survey remained approximately the same as the number for the six months before the second round survey.

The greater level of exposure to the intervention in the peer educator sites compared to the health educator sites is a result of the way the interventions were implemented. Peer educators were able to provide information and skills building training to their fellow workers at any time during the day. Many workers, including peer educators, lived on the site. Health educators, however, mainly provided information to workers off-site and unless workers came off site during the small amount of time that health educators visited the site they were not contacted. The slight reduction in exposure to peer education between rounds 2 and 3 reflects the diffusion of the intervention as workers went to new sites. As most of the peer educators confined their peer education activities within their work teams, other work teams on new sites might not have had access to peer educators. This reflects the importance of continuing to train new peer educators at new sites.

In table 2, summary values for relevant psycho-social variables, including knowledge and attitudes related to HIV/AIDS, are shown. Workers were asked eight basic questions about HIV/AIDS in order to assess their knowledge of the disease. A summary additive index ranging from 0 (no questions answered correctly) to 8 (all eight questions answered correctly) was constructed. Overall, the level of knowledge was high with the mean number of questions answered correctly by workers participating in the baseline survey being 6.02 for workers at peer

<table>
<thead>
<tr>
<th>Characteristic/Arm</th>
<th>Round 1</th>
<th>Round 2</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No exposure</td>
<td>Exposure</td>
<td></td>
</tr>
<tr>
<td>Knowledge (mean)</td>
<td>PE 6.02 (681)</td>
<td>6.97 (190)**</td>
<td>7.29 (536)**</td>
</tr>
<tr>
<td></td>
<td>HE 6.07 (478)</td>
<td>6.10 (207)</td>
<td>7.25 (275)**</td>
</tr>
<tr>
<td>Know where to get condom (%)</td>
<td>PE 63 (742)</td>
<td>75 (200)**</td>
<td>94 (551)**</td>
</tr>
<tr>
<td></td>
<td>HE 68 (502)</td>
<td>66 (219)</td>
<td>87 (286)**</td>
</tr>
<tr>
<td>Condom efficacy (mean)</td>
<td>PE 2.89 (742)</td>
<td>2.78 (200)</td>
<td>3.02 (551)**</td>
</tr>
<tr>
<td></td>
<td>HE 2.95 (502)</td>
<td>2.88 (219)</td>
<td>3.19 (286)**</td>
</tr>
<tr>
<td>Life skills (mean)</td>
<td>PE 7.28 (742)</td>
<td>7.49 (200)</td>
<td>7.82 (551)**</td>
</tr>
<tr>
<td></td>
<td>HE 7.27 (502)</td>
<td>7.31 (219)</td>
<td>7.63 (286)**</td>
</tr>
<tr>
<td>Stigmatizing attitudes (mean)</td>
<td>PE 0.47</td>
<td>0.40**</td>
<td>0.32**</td>
</tr>
<tr>
<td></td>
<td>HE 0.38</td>
<td>0.40</td>
<td>0.28**</td>
</tr>
</tbody>
</table>

** p<.01

Note: Number in parentheses is number of respondents; Tests of significance are based on the levels of change between Round 1 and Round 2. Tests were undertaken separately for those exposed to the interventions and those not exposed to the interventions.
education sites and 6.07 for workers at the health educator sites. Between the first and second rounds, levels of knowledge increased for workers at both the peer education and the health educator sites. Among those workers exposed to the interventions, the mean score on the knowledge index was 7.29 after six months of the intervention and was 7.25 for workers at the health educator sites.

Although general knowledge about HIV/AIDS was high, more practical knowledge that could help in preventing transmission was more limited. At the baseline only 63 percent of workers at the peer education sites and 68 percent of workers at the health educator sites knew where they could obtain a condom. For those workers exposed to the intervention at the peer education sites, 94 percent knew where to obtain condoms, while 75 percent of those not exposed to the intervention knew where to obtain condoms by the end of six months. The amount of change was somewhat smaller for the health educator sites and was confined to the workers exposed to the intervention.

An additive index was constructed to measure the extent to which workers felt confident in using a condom. The index was constructed from two items, each of which was scored one to four, with increasing values reflecting greater comfort/confidence related to condom use. The two items were confidence in obtaining a condom and confidence in using a condom. The index was constructed to have a range of one to four, reflecting the distribution on the two items that comprise the index (Cronbach's Alpha for the constructed index was 0.69). For workers exposed to the interventions, the mean condom efficacy score increased from 2.89 to 3.02 at the peer education sites and from 2.95 to 3.19 at the health educator sites. There was very little change for workers not exposed to the intervention. The results suggest that direct exposure to the interventions was necessary to bring about a change in the confidence workers had in obtaining and using condoms, but that both the peer education and health educator interventions were both effective in bringing about change.

Apart from attempting to increase knowledge and change values, the health educator and peer education interventions also attempted to increase the confidence of workers to make decisions in everyday situations they might face that would reduce their vulnerability to HIV/AIDS. Life skills were measured by providing respondents with seven hypothetical situations and asking them to express, on a scale of 1 to 10, how confident they would be in each situation in making a specified decision. Therefore, the final index can range from 1 to 10 and reflects the underlying scale of each item. If a respondent was completely confident in making the decision in all seven situations, he or she would obtain a score of 10. For both groups of workers, the mean score on the life skills index at baseline was approximately 7.3. Among workers exposed to the peer education interventions, the mean score increased to 7.8 after six months, while there was a smaller increase to 7.6 for the workers exposed to the health educator interventions, and almost no change for workers not exposed to the interventions.

Components of both the health educator and peer education programmes attempted to reduce stigmatising attitudes towards persons living with HIV/AIDS. The survey results suggest that the interventions did have an impact on reducing stigma, with the reductions being greatest for those workers in the peer education sites, and the impact largely confined to workers exposed to the interventions. An index of stigmatising attitudes was constructed from five items; these
items were taken from commonly used surveys, such as the DHS. Each of the five items were
coded as 0 (no stigmatising attitude) and 1 (stigmatising attitude). The index, which had a
Cronbachs Alpha of 0.79, was constructed by summing responses from the five items and then
dividing by 5. The resulting measure can therefore be interpreted as the proportion of the five
items in which a stigmatising attitude was reflected. A reduction in the index value reflects a
reduction in stigma. For workers exposed at the peer education sites, there was a reduction on
the index from 0.47 to 0.32, while for workers exposed to intervention activities at the health
educator sites the index fell from 0.38 at baseline to 0.28 six months later.

Reported levels of sexual and other behaviour that could expose workers to the risk of
contracting HIV were low. The qualitative data suggests that there is substantially more HIV
risk behaviour engaged in by workers than what was found in the close-ended surveys. This is
not an unusual finding, and it reinforces the importance of triangulating the information gathered
from multiple sources.

Although levels of reported behaviour in the surveys are low, an analysis of change in
behaviours provides some indication of initial impacts of the intervention. In table 3 the reported
levels of various behaviours are shown for rounds 1 and 2. Less than two percent of workers
responding to the survey reported that they had more than one sex partner in the six months
before the baseline survey or in the six months before the round 2 survey. Over time there was a
slight increase in the proportion reporting multiple sex partners, but increases were small and
most likely due to an aging of the workers and increasingly longer experience working in Ho Chi
Minh City. There is a close correspondence between marital status and sex within the previous
six months (results not shown). The high levels of sexual activity of the married, most of whom
are migrants, suggest that many married construction workers either come to Ho Chi Minh City
with their spouses or make regular trips home.

Among the sexually active workers, very few reported having sex with a sex worker in the six
month period before each survey. At the baseline survey the percentages were 2.4 and 2.6 for
peer educator and health educator sites respectively. These percentages increased between the
first and second rounds, with the increases being greatest for those exposed to the interventions.
Except for workers exposed to the health educator intervention the increases were not
statistically significant. A similar pattern of change over time can be seen in the proportion of
sexually active workers who reported having sex with a non-marital sex partner in the six months
prior to each survey, with increases for both arms. The increases were greatest for the health
educator arm and for workers at the health educator sites, the increases were greater for those
exposed to the intervention. One possible explanation for some of these changes is that the
interventions facilitated more accurate reporting of sensitive behaviours by encouraging workers
to talk about sexual behaviours. The levels of increase were much smaller for workers at the
peer education sites than at the health educator sites.

Table 3 displays the two indicators of condom use with sex workers and non-marital sex
partners. The results suggest high level of condom use with sex workers, with higher use for
workers at peer education sites than at health educator sites, and higher use among those exposed
to the interventions than among those not exposed to the interventions. A similar conclusion can
be drawn from an examination of patterns of condom use in the last sexual encounter with a non-
marital sex partner, with less than one-third using a condom at the baseline, increasing at six months to over two-thirds among those exposed to the interventions at the peer education sites and almost one-half of those exposed to the interventions at the health educator sites.

Table 3: Selected behaviour variables by study arm, survey round and exposure to intervention

<table>
<thead>
<tr>
<th>Characteristic/Arm</th>
<th>Round 1</th>
<th>Round 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No exposure</td>
<td>Exposure</td>
</tr>
<tr>
<td>Number of sex partners in last six months (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>49.7</td>
<td>48.5</td>
</tr>
<tr>
<td>One</td>
<td>48.9</td>
<td>50.0</td>
</tr>
<tr>
<td>More than one</td>
<td>1.3</td>
<td>1.5</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>N</td>
<td>742</td>
<td>200</td>
</tr>
<tr>
<td>HE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>61.6</td>
<td>56.2</td>
</tr>
<tr>
<td>One</td>
<td>37.3</td>
<td>41.6</td>
</tr>
<tr>
<td>More than one</td>
<td>1.2</td>
<td>2.3</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>N</td>
<td>502</td>
<td>219</td>
</tr>
<tr>
<td>Sex with sex worker in last six months (%) a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE</td>
<td>2.4 (373)</td>
<td>2.9 (103)</td>
</tr>
<tr>
<td>HE</td>
<td>2.6 (193)</td>
<td>4.2 (96)</td>
</tr>
<tr>
<td>Sex with non-marital partner in last six months (%) a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE</td>
<td>7.5 (372)</td>
<td>12.6 (103)</td>
</tr>
<tr>
<td>HE</td>
<td>11.9 (194)</td>
<td>16.7 (96)</td>
</tr>
<tr>
<td>Used condom last time had sex with sex worker (number) b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE</td>
<td>8 (9)</td>
<td>3 (3)</td>
</tr>
<tr>
<td>HE</td>
<td>4 (5)</td>
<td>1 (4)</td>
</tr>
<tr>
<td>Used condom last time had sex with non-marital partner (number) c</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE</td>
<td>11 (28)</td>
<td>4 (13)</td>
</tr>
<tr>
<td>HE</td>
<td>6 (23)</td>
<td>6 (16)</td>
</tr>
</tbody>
</table>

** p <.01

Notes:  
  a Number in parentheses is the number of respondents who had sex in last six months.
  b Number in parentheses is the number of respondents who had sex with sex worker.
  c Number in parentheses is the number of respondents who had sex with non-marital sex partner.

Tests of significance are based on the levels of change between Round 1 and Round 2. Tests were undertaken separately for those exposed to the interventions and those not exposed to the interventions. Because of small numbers tests of significance are not undertaken for condom use with sex worker of non-marital partner.

7. Conclusions

Findings about the impact of the programme on workers indicate that the peer education programme reached a higher proportion of the workers than the health educator programme. HIV-related knowledge, condom efficacy, and life skills significantly increased in both study arms, but often more so among workers exposed to the peer education programme. HIV-related stigma decreased significantly for both arms, but more so for workers exposed to the peer education programme. These findings are important for relatively low-prevalence environments...
like Viet Nam because such factors as increased knowledge and efficacy regarding condoms have been shown to be key initial steps to behavioural risk reduction. Reported risky sexual behaviour in the surveys was quite low in this population, so conclusions about the impact of the programmes on behaviour change are limited. However, there is evidence - such as an increase of condom use with a non-marital sexual partner - that suggest that there may also be an impact in that area.

The results indicate that workplace HIV/AIDS prevention programmes targeted at highly mobile construction workers can be successful in a short period of time in changing knowledge, attitudes and skills. The results suggest that the peer education programme, which in addition to targeting workers also attempted to provide a supportive environment within the workplace, facilitated more positive changes than the health educator programme. Further benefit from a peer education programme is derived from the ability to follow workers as they move from site to site. The results also indicate the need to continually recruit new peer educators as the number of sites expands and to retrain current peer educators. While this adds to the cost of the intervention it ensures that the impact is sustained. Based on the results of the evaluation reported upon in this paper, the Labour Union and HCMC-PAC plan to expand the peer education programme.

References