HIV/AIDS
Treatment and Care
Evaluation of the Thailand–Australia HIV/AIDS Ambulatory Care Project

Quality Assurance Series
No. 28 December 2001

The Australian Government's
Overseas Aid Program

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ABBREVIATIONS

ACU	Ambulatory Care Unit
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal clinic
ARV	Anti-retroviral
ASC	Albion Street Centre
AusAID	Australian Agency for International Development
Bamras	Bamrasnaradura Infectious Diseases Hospital
CDC	(Department of) Communicable Disease Control
CLC	Candle Light for Life Club
HIV	Human Immunodeficiency Virus
IEC	Information, Education and Communication
MDRTB	Multidrug resistant tuberculosis
MSF	Médecins sans Frontières
NGO	Non-Government Organisation
PCP	*Pneumocystis carinii* pneumonia
Project	The Thailand-Australia HIV/AIDS Ambulatory Care Project
RTG	Royal Thai Government
STA	Short Term Adviser
Team	Evaluation Team
TB	Tuberculosis
WHO	World Health Organization

EXECUTIVE SUMMARY

An independent Evaluation Team assessed the Thailand-Australia HIV/AIDS Ambulatory Care Project, implemented at the Bamrasnaradura Hospital (Bamras) in Bangkok, as the Project was nearing completion. Bamras is the premier hospital for HIV/AIDS patients in Thailand. The Team found that the Project was relevant to the needs of the Thai people, had been implemented in a satisfactory manner, had achieved almost all of its objectives, and that its benefits were likely to be sustainable within the hospital. The Project contributed to improved quality of care for all patients attending the hospital. While there was limited opportunity for transfer of the whole model, as developed by the Project, to other settings elements, such as counselling and infection control, are widely applicable to HIV/AIDS care and treatment programs in other locations in Thailand and in neighbouring countries. Bamras Hospital has the capacity to provide training in these areas.

Background

Since the first diagnosis of HIV/AIDS in Thailand in about 1984, almost one million people have been infected with HIV including 300,000 who have died. HIV/AIDS is now the leading cause of premature death in the country. The Government of Thailand has acted decisively in the face of the epidemic and its nationwide campaign to reduce HIV transmission is one of the few examples in the world of an effective national HIV/AIDS prevention program. While Thailand has reduced the rate of infection it has not stopped it and, as in other countries, there is an increasing demand for treatment of those already infected with the virus. It was in this context that the Thailand-Australia HIV/AIDS Ambulatory Care Project was conceived, and then implemented from April 1997.

The Project

The goals of the Thailand – Australia HIV/AIDS Ambulatory Care Project at its start were to:

- Establish a fully integrated ambulatory care model at the Bamrasnaradura Hospital for the delivery of optimal clinical care to patients with HIV/AIDS and the support of families and carers through the strengthening of health care worker training, organisational support and infrastructure development.
- Assist in the development of the Bamrasnaradura Hospital as a Clinical Reference Centre and as a National and Regional Training Centre in HIV/AIDS care.

The four Project components were:

- To develop the clinical and counselling skills of health care workers at Bamrasnaradura Hospital to care for patients with HIV/AIDS and to provide psychosocial support to families and carers.
- To develop the organisational and educational capacity of Bamrasnaradura Hospital to provide culturally appropriate health information for target groups and health literature to support the on-going education of health care workers.

- To develop the organisational capacity to devise and implement an ambulatory care model that is transferable locally, nationally and in the international region.
- To efficiently and effectively manage and implement the Project for the achievement of the defined implementation targets and Project objectives.

The evaluation

An external evaluation of the Project was requested by AusAID to coincide with the final stages of the Project. The objectives of the evaluation were to assess the effectiveness, efficiency and impact of the Thailand HIV/AIDS Ambulatory Care Project including the:

- Appropriateness of the objectives and design.
- Extent to which the activity has achieved its stated goals and objectives.
- Professionalism of management.
- Sustainability of benefits.
- Adaptability and replicability of the ambulatory care model.

Lessons learned were to be one of the key outputs.

An international Evaluation Team implemented the evaluation in April/May 2001.

Methods used by the Project Evaluation Team

The Evaluation Team used a range of measures in its assessment. These included reviews of Short-Term Adviser (STA) and Project reports, discussions with STAs in Australia and the Project team members in Thailand, and discussions with senior Ministry of Public Health and Department of Technical and Economic Co-operation officials as well as with senior staff from Bamras. The evaluation also included small surveys of patient registers and notes, discussions with focus groups of patients and families/carers and a review of the educational material prepared by the Project. Discussions were held with various people throughout the hospital including doctors, nurses, laboratory personnel, counsellors, library and pharmacy staff. Multiple visits were made to the Ambulatory Care Unit (ACU) and the outpatients and inpatients departments. The Team also undertook a simple cost benefit exercise and held discussions with international and non-government organisations including UNAIDS, UNICEF, World Health Organization (WHO) and Médecins sans Frontières (MSF).

The findings of the evaluation

Before the Project began, the increasing numbers of patients with HIV infection attending the hospital (a 45-fold increase between 1988 and 1995) resulted in management difficulties, particularly with the proportion of limited inpatient beds being occupied by patients requiring minor investigations.

The Bamras Ambulatory Care Unit was opened in March 1996. The ACU was not started by the Project, although it was based on what Bamras doctors had seen on their visit to the Albion Street Centre, a facility of the Division of Medicine at the Prince of Wales Hospital in

Sydney, Australia. The Project has facilitated further development of the ACU.

Although the Project design did not include an explicit link to poverty reduction, Bamras is a public hospital which is used primarily by people who are unable to afford healthcare at a private hospital, which includes most patients with HIV/AIDS. Some patients travel long distances to access services at Bamras. Most patients receive most services free, some services are free only if the person is assessed as not having the capacity to pay, and some are only available if paid for.

The total effects of the Project are complex and are greater than the initial objectives would suggest.

In summary, the Project model as implemented at Bamras has a number of important elements, many of which affect the broader hospital. These elements are not exclusively due to the Project. They include:

- The treatment of those HIV/AIDS patients who are still ambulatory in the ACU where possible, therefore reducing the demand on hospital beds. In the ACU, patients can be assessed, treated and discharged, often on the same day. Prior to the Project, most patients with HIV/AIDS requiring any treatment had to be admitted to hospital.
- The destigmatisation of HIV/AIDS for patients, relatives, carers and hospital staff. Almost 75 per cent of hospital staff attended courses concerning HIV/AIDS, mostly in their own time. This has led to an acceptance of the patients that is not necessarily found in other hospitals. This is highly valued by the patients and their families.
- The development of skills of nursing staff so that they can perform more complex (and rewarding) jobs. The Project has trained triage nurses, nurse counsellors, infection control nurses and a range of specialist nurses who have had an impact throughout the hospital.
- Improved service flow. This includes earlier assessment of the severity of patients' illnesses when they enter the hospital, and the early implementation of diagnostic tests e.g. X-rays, so that a doctor has more information to assess the patient and decide on appropriate treatment.
- A wider range of services being available to people living with HIV/AIDS (and other hospital patients) including counselling, nutrition advice, improved dispensing of pharmaceuticals, and proper identification and treatment of ailments characteristic of AIDS, particularly tuberculosis (TB) and cryptococcal meningitis. Services include the provision of information, education and communication materials to patients, families and carers.
- Increased attention to the role of families and other community support groups in the care and support of people living with HIV/AIDS.
- The development of the Bamrasnaradura Hospital as a Clinical Reference Centre and a National and Regional Training Centre in HIV/AIDS care. This includes provision of a broad range of courses to a diverse group of people. At the time of the evaluation there was some reluctance to adopt a training role in the international region and the Evaluation Team was concerned about the slow development[1].

1 A Project extension introduced after the evaluation is expected to solve this problem.

Regarding program management, the Team was told that there were some initial misunderstandings caused by inadequate consultation to ensure that all parties to the Project fully understood respective roles and responsibilities. Implementation and ownership of the Project may also have been improved if senior medical staff had been fully involved in it at an earlier stage and there had been a better understanding of appropriate learning modes for this level of staff.

Resource Use

The Team considered whether the processes developed as part of the Project had led to the increased use of financial and staff resources. In some instances the workload per staff member has increased and in other cases it has decreased. Overall, because the quality of care has improved, it is likely that the output and outcome per staff member has increased, meaning that the Royal Thai Government is getting better value for money. As the HIV/AIDS epidemic matures there is an increased complexity of HIV/AIDS cases, but these are being managed well at the hospital.

The costs per patient may have increased after adjustments for the cost of living, but this would be marginal – about 5 per cent. This is a good result, given the disproportionate increase in costs of imported medical goods and pharmaceuticals caused by the fall in the Thai currency, the baht.

Significant costs have been saved by the existence of the ACU. Although difficult to estimate, given the absence of specific costing data, it appears that most patients attending the ACU would have required admission if the ACU did not exist. For the year 2000, assuming that of the patients attending the ACU who were not admitted, at least half would have been admitted if the ACU did not exist, and assuming that the bed stay was three days instead of the hospital average of six days, then the annual costs saved would have been about 15 million baht (A$750,000). Certainly, the increased number of complex/severe (but still ambulatory) cases would have overloaded the hospital's capacity if it had continued admitting patients requiring investigations and/or treatment. For instance, how much would it have cost to add another HIV/AIDS ward, complete with staff?

Sustainability and transferability

Sustainability is a key aspect of high quality development co-operation. In reviewing the sustainability of the Project, the Team considered that the benefits of the Project are inherently sustainable because the Project did not involve a significant increase in staff, the staff:patient ratios have been relatively constant, improved staff training has been institutionalised and many of the operational upgrades and other Project outputs have become incorporated into daily practice.

However, there may be difficulties in having the improved systems and practices incorporated into a Thailand-wide policy. Bamras is one of only four communicable diseases

hospitals in the country and has no teaching role or formal links with teaching hospitals, which are normally associated with universities. This will be offset by the extent of its success as a National and Regional Training Centre in HIV/AIDS care.

The Team considered that transferring the whole Project model, including the ACU, to other hospitals in Thailand and other countries in the region would be difficult because the preconditions for transfer of all components are rarely met. For example, the successful introduction of the ACU requires a substantial HIV/AIDS patient load and the capacity of a hospital's laboratory and X-ray services to provide rapid, accurate and specific diagnoses. Health care workers must also be at a standard where they can rapidly acquire the additional skills needed to carry out specialised procedures such as lumbar punctures.

However, if the whole model is not suitable, it is valuable to introduce activities to upgrade such areas as counselling, infection control, and training for destigmatisation as the first steps to improving services for people living with HIV/AIDS.

Vietnam, Laos and Cambodia

In Vietnam, Laos and Cambodia there is an increasing need for treatment and care for people living with HIV/AIDS as the number of people diagnosed HIV-positive increases each year. However, while there is a degree of political interest and commitment to the need for better models of care, relatively little is known about the Bamras model. Clinical and political leaders would need to be identified before any pilot project could be conducted and considerably more work would be needed to implement any project. The capacity of health care staff to benefit from training needs to be determined. However, early interventions could be made in training in infection control, improving counselling skills and introducing general information/destigmatisation courses. There also appears to be significant need for treatment and care interventions at the community level.

Conclusion

The evidence to date is that the main elements of the Project have been embedded in hospital management and treatment processes. Some of the features include an improved Ambulatory Care Unit, better triage, improved patient flows (in part due to the changed role of nurses and more efficient use of outpatients for HIV/AIDS patients) better and safer dispensing of medications and greater use of counselling, all of which facilitated better and more efficient care. Staff are highly trained and staff and patients benefit from destigmatisation about HIV/AIDS. Furthermore, the importance of the role that families and carers play is more widely recognised in Bamras now than it was prior to the Project.

The Team considers that the Project has been well managed from the perspective of AusAID, the Albion Street Centre and Bamras. As in all projects, some small matters could be improved but in total the Project was, and will continue to be, extremely valuable.

A number of lessons were learned that have relevance for other projects. These relate to issues including analysis of partner government policy, establishment of a project's clear inception phase, recognition of essential criteria for implementation of projects, the inter-relationship of tuberculosis and HIV/AIDS, engagement of stakeholders, transferability and the use of sub-contractors.

CHAPTER 1
BACKGROUND

Since the first diagnosis of HIV/AIDS in Thailand in about 1984, almost one million people have been infected with HIV including 300,000 who have died. AIDS is now the leading cause of premature death in the country. Its prevalence is highest in young men and women in their most productive years. The Government of Thailand has acted decisively in the face of the epidemic and its nationwide campaign to reduce HIV transmission is one of the few examples in the world of an effective national HIV/AIDS prevention program[2].

While the rate of infection in Thailand has fallen, there is an increasing demand for treatment of those who are already infected. People living with HIV/AIDS can become seriously ill and die from curable infections that people with healthy immune systems can resist. The most important of these in Thailand are tuberculosis (TB) and cryptococcal meningitis, but others include *Pneumocystis carinii* pneumonia (PCP), skin diseases and a range of other opportunistic infections. All of these are treatable and many are preventable in people living with HIV/AIDS at relatively low cost[3].

Bamrasnaradura Infectious Diseases Hospital (Bamras) in Bangkok was founded in response to the cholera epidemic of 1958–59. In 1984, medical staff at the hospital diagnosed and treated Thailand's first HIV/AIDS patient and in 1987 the Ministry of Public Health designated Bamras as a hospital for HIV/AIDS patients.

Bamras has undergone significant change, especially in the past few years. Not only is Bamras a mixed hospital with a special focus on caring for people with infectious diseases, especially HIV/AIDS, it also has been undergoing extensive renovations, with the addition of at least five new buildings. Bamras has also been changing rapidly in technical areas. Concurrently with the Project, Bamras obtained ISO9002 quality standards rating and became a WHO Collaborating Centre for HIV/AIDS. Prior to the Project, Bamras was already meeting the challenges of increasing numbers of patients with HIV/AIDS. An Ambulatory Care Unit (ACU) had been established, following a visit by Bamras doctors to the Albion Street Centre (ASC), a facility of the Division of Medicine of the Prince of Wales Hospital in Sydney, Australia, and Bamras' laboratories had been improved. These events gave the Project a base on which to build on the hospital's health development initiatives.

Policy setting

For the Project to be supported under the Thailand-Australia technical and economic cooperation program, it needed to be compatible with Thailand's HIV/AIDS objectives and Australia's aid objectives.

2 World Bank (2000) Thailand's Response to AIDS: Building on Success, Confronting the Future. Thailand Social Monitor V, World Bank.

3 Ibid.

Thailand

The Project was developed while Thailand's 1995–96 AIDS Prevention and Control Plan was operating, but it was implemented in its entirety under the National Plan for Prevention and Alleviation of HIV/AIDS 1997–2001[4]. This Plan has two general objectives:

1. To prevent and reduce problems associated with the HIV/AIDS epidemic.
2. To reduce the impact of the epidemic upon the socio-economic and health status of the population at all levels: individual, family, community and national.

Its targets are to reduce new HIV infections in the public and to reduce the impact of the HIV/AIDS problem on the socio-economic and health status of the population. The national plan is discussed further, with an analysis of its relationship with the Project, in Chapter 5.

There are eight development strategies in the national plan, some focused on promoting social and economic change which will reduce risks of new HIV infections, and others on self-help and community help for people living with HIV/AIDS. Strategy 5 concerns health promotion and medical services. Emphasis in this strategy is on the wider application of preventive services in all sectors, and on increasing the capacity of people living with HIV/AIDS to care for themselves to the greatest extent possible and to maintain good health. This includes provision of appropriate medical services but stresses the development of the potential of the family and the community to participate in the care and support of people ill with HIV/AIDS. The mechanisms to be employed to implement this strategy include the improvement of services for persons living with HIV/AIDS. The details of the mechanisms include some of those which were included in the Project design e.g. counselling, improved and on-going training for health workers, quality assurance in medical treatment, universal precautions, nutritional therapy and development of non-government organisations (NGOs).

Strategy 7 of the plan aims to enhance regional co-operation in preventing and alleviating HIV/AIDS problems and international co-operation in assessing and exchanging AIDS-related technologies and state of the art techniques for the prevention and alleviation of HIV/AIDS problems. This was also conducive to the implementation of the Project.

Australia

The objective of Australia's technical and economic co-operation in Thailand is the same as Australia's aid objective i.e. To advance Australia's national interest by assisting developing countries to reduce poverty and achieve sustainable development. There are 10 key result areas in the Australian aid program including:

To assist partner countries to improve health outcomes the aid program will:

- Improve basic health care for those groups most at risk through simple, cost-effective methods of prevention and treatment focusing on:

4 National AIDS Committee Bangkok, Thailand

  - Communicable and vector-borne diseases especially HIV/AIDS, tuberculosis and malaria;
  - Women and children's health, including reproductive health; and
  - Non-communicable diseases and injuries.
- Support national policy development and health sector reform.

The Project was therefore also relevant to the Australian aid program. The priority assigned to HIV/AIDS has increased in the years since the Project's inception.

Formulation

The origin of the Project was outside the normal Thailand–Australia bilateral arrangements for the development of the technical and economic co-operation program. This activity originated with a visit to the ASC in Sydney by the Thailand Deputy Minister for Health, Dr Udomsil Srisangram, and other senior health officials. Dr Udomsil selected the ASC as the most appropriate institution for Thailand to collaborate with on HIV/AIDS treatment and care. Subsequently, the Thai Ministry of Public Health nominated Bamrasnaradura Hospital as the National Clinical Reference and Training Centre for HIV/AIDS in Thailand.

AusAID first became involved at the end of 1994 when it approved a request for a small grant to enable the ASC to conduct a three-week needs assessment at Bamras and in Chiang Mai, in northern Thailand, of HIV/AIDS ambulatory care capacity, hospital facilities, administrative structure and functioning and professional resources. In April 1995 the New South Wales (NSW) Department of Health and the Ministry of Public Health in Thailand signed a Memorandum of Understanding endorsing their collaboration. Further collaboration between Bamras and the NSW Department of Health/ASC led to a proposal with the support of the Thai Ministry of Public Health, which recommended approval by the Thailand Department of Technical and Economic Co-operation. After further discussions in early 1996 AusAID assessed the feasibility of the proposed Project and then prepared a draft project design document which led to the Project as implemented.

Objectives and scope at design

The goals of the Thailand–Australia HIV/AIDS Ambulatory Care Project[5] at its start were to:

- Establish a fully integrated ambulatory care model at the Bamrasnaradura Hospital for the delivery of optimal clinical care to patients with HIV/AIDS and the support of families and carers, through the strengthening of health care worker training, organisational support and infrastructure development.
- Assist in the development of the Bamrasnaradura Hospital as a Clinical Reference Centre and as a National and Regional Training Centre in HIV/AIDS care.

5 AusAID (undated) A Collaborative Project of the Royal Thai Government and the Government of Australia. The Bamrasnaradura Hospital HIV/AIDS Ambulatory Care Project in collaboration with the Albion Street Centre, Sydney 1996–1999. (Project Design Document)

The four Project components were:

- To develop the clinical and counselling skills of health care workers at Bamrasnaradura Hospital to care for patients with HIV/AIDS and to provide psychosocial support to family and carers.
- To develop the organisational and educational capacity of Bamrasnaradura Hospital to provide culturally appropriate health information for target groups and health literature to support the on-going education of health care workers.
- To develop the organisational capacity required to devise and implement an ambulatory care model that is transferable locally, nationally and in the international region.
- To efficiently and effectively manage and implement the Project to achieve the defined implementation targets and Project objectives.

Total Project cost was estimated at A$3.24 million.

Implementation and review

The Project started in April 1997 and was due for completion in December 1999.

A technical and mid-term review[6] was conducted in April 1998. The review assessed the extent to which the Project had achieved its objectives during the initial 12 months and recommended changes expected to enhance the achievement of its goals. The major recommendations of the review were that:

> *'Years two and three be strengthened to ensure the capacity of the Bamrasnaradura Hospital staff is well developed and that all implemented procedures are operational before the project is completed. To allow for this consolidation, an extension of the health care Project for one year is recommended.'*

It was further proposed that in the additional year Thai workers would undertake Project activities with minimal support from the Project team.

The review also recommended that assistance be offered to develop:

- Laboratory services.
- Clinical research capability by offering three clinical research scholarships.

Increased evaluation of infection control, nutritional interventions, the broadening of palliative care training to include all health care workers, and additional support in quality assurance and staff development were also proposed. The review also recommended that a monitoring and evaluation framework be developed and implemented. This was seen as an important real-time feedback mechanism and as an aid to a later impact evaluation which could demonstrate the success of the Project. A range of other adjustments to the existing Project design were also recommended. These recommendations were endorsed and implemented, as was a later recommendation for a further six-month extension.

The Project was due to be completed in June 2001.

6 AusAID (June 1998) Thailand: The Bamrasnaradura Hospital HIV/AIDS Ambulatory Care Project: Technical and Mid-Term Review: Final Report.

External evaluation

An external evaluation of the Project was requested by the AusAID Thailand Desk to coincide with the last stages of the Project. AusAID's Performance Information & Assessment Section managed the implementation of the evaluation. The members of the international external Evaluation Team are listed in **appendix 1**.

The short terms of reference for the evaluation are in **appendix 2**. In brief, the objectives of the evaluation were to assess the effectiveness, efficiency and impact of the Thailand HIV/AIDS Ambulatory Care Project including the:

- Appropriateness of the objectives and design.
- Extent to which the activity achieved its stated goals and objectives.
- Professionalism of management.
- Sustainability of benefits.
- Adaptability and replicability of the ambulatory care model.

Lessons learned were to be one of the key outputs.

The desk study for the evaluation was undertaken from 29 March to 3 April 2001 and the field review in Thailand and neighbouring countries from 23 April to 9 May 2001.

The scope of the evaluation incorporated the "aid quality" indicators developed by AusAID's Quality Assurance Group.

Methods used by the Evaluation Team

The Evaluation Team used a range of methods to assess the Project, including discussions with senior Ministry of Public Health and Department of Technical and Economic Co-operation officials as well as with senior staff from Bamras, small surveys of patient registers and notes, focus groups of patients and families/carers and reviews of the educational material as well as reports by the Short Term Advisers (STAs) who participated in the Project. Discussions were held with STAs in Sydney, and various people throughout Bamras hospital including doctors, nurses, laboratory personnel, counsellors, the librarian and the pharmacist. Multiple visits were made to the Ambulatory Care Unit (ACU) and the outpatients and inpatients departments. The Team also undertook a simple costing exercise and discussed the Project with international and non-government organisations including UNAIDS, UNICEF, World Health Organization (WHO) and Médecins sans Frontières (MSF).

The Evaluation Team received exceptional co-operation from hospital staff and other Thai stakeholders, as well as other interested parties in Laos, Cambodia and Vietnam (the list of people who were interviewed or assisted the Evaluation Team is in **appendix 3**).

The evaluation would not have been possible without the assistance of the Albion Street Centre Project staff based at Bamras.

A peer review group including AusAID staff reviewed the Evaluation Team's draft report. Feedback was also sought from the Australian managing contractor. However, the views expressed in this final evaluation report are those of the Evaluation Team.

CHAPTER 2
APPROPRIATENESS OF OBJECTIVES AND DESIGN

Appropriateness of objectives

The objectives of the Project including 'to establish a fully integrated ambulatory care model at the Bamrasnaradura Hospital' were clear and measurable but the full effects of the project were more widespread than this objective would suggest. As will be discussed in Chapter 3, the Project not only facilitated the development of an ambulatory care unit in one of the wards for HIV/AIDS patients, but also had an impact on all aspects of HIV/AIDS care in the hospital. It had an even wider effect on the organisation of the hospital's overall patient management, which was already changing due to other factors. By the end of the Project, the model had four major elements:

- An ambulatory care component, in which patients who in a normal outpatient or emergency room would require admission, are treated and discharged within a few hours.
- Special features relevant to HIV/AIDS but which have value throughout the hospital, not just in ambulatory care e.g. counselling, information, education and communication (IEC) materials.
- General hospital modifications which facilitate the care of all patients e.g. modification to patient flow, improvement of pharmacy and infection control.
- Training of Bamras staff as well as health care professionals from other hospitals in Thailand and from other countries.

At the start of the Project, Bamras was the premier hospital for HIV/AIDS patients in Thailand, with referrals from other hospitals and with patients coming to the hospital from many parts of the country. However, its outpatient services to HIV/AIDS patients were restricted to one morning a week and there was a stigma towards people living with HIV/AIDS within the hospital and in the community. The number of patients with HIV/AIDS complications was increasing, and is continuing to do so[7].

The Project was appropriate and relevant as it proposed to increase the capacity of the hospital to provide services to HIV/AIDS patients (now five days a week in the ambulatory care unit, seven days a week for emergencies). These services were to be provided in a holistic manner, with an emphasis not only on treating concurrent infections, but also providing counselling, support and advice on nutrition and care, including for carers.

As discussed in Chapter 1, the Thai health authorities decided that the ambulatory care implemented at the Albion Street Centre in Sydney was most appropriate for their needs and Australia is internationally recognised as having expertise in providing holistic care to HIV/AIDS patients in the community. Ambulatory care functions slightly differently in Thailand, for example, much sicker patients are dealt with in the Ambulatory Care Unit than

7 The overall course of the epidemic will depend on the effectiveness of prevention activities.

would be the case in Australia, where anti-retroviral drugs are now generally available. Other aspects of the Project focused on training to improve skill levels of health workers and management practices, which are also areas of Australian expertise.

There was some concern[8] that the time frame for the Project was too short. However, as discussed in later chapters, the main elements of the Project have been embedded in hospital processes and there have been extensions of the Project to deal with outstanding concerns. At the time of the evaluation an "exit strategy" was being implemented.

The objectives of the Project are a priority within Thailand, particularly as the people who were infected in the first surge of the HIV/AIDS epidemic become progressively sicker and die from opportunistic infections and other complications of the disease. However, the priority of treatment and care for those already infected with HIV is shared with priority for prevention activities. Royal Thailand Government budgets limit investment in both approaches.

HIV/AIDS activities are specifically mentioned as a priority in AusAID's key result areas. Most activities supported by AusAID to date have focused on prevention and have frequently been implemented by NGOs and/or at the community level. The Project was the first hospital-based treatment and care activity and is expected to provide lessons for future activities at this level. In July 2000 the Australian Minister for Foreign Affairs and Trade announced support of A$200 million over six years, starting in the 2000–01 financial year, for HIV/AIDS activities in the aid program.

The target population for the Project was clearly identified in the Project design document (although in the incorrect order), with the initial beneficiaries to be health care workers (initially nursing staff with doctors and others later). The ultimate beneficiaries were the patients with HIV/AIDS, who were expected to benefit from multidisciplinary care provided in a caring and non-judgmental manner, and from the provision of information on how to better care for themselves and how to access emotional support. Counselling and information was also to be available to carers of people living with HIV/AIDS.

At a broader level, and not discussed in the Project design document, was the demonstration effect of the Project through the thousands of visitors to the hospital (see **appendix 4**), including medical students from universities, staff from provincial hospitals, staff of multilateral organisations with an interest in HIV/AIDS and visitors from many other places.

The Project was to have a role in the development of the hospital's future as a Clinical Reference Centre and as a National and Regional Training Centre. Support was to be provided through developing training capacity among nursing and counselling staff. The budget to support this aspect of the Project was insufficient.

8 AusAID's Quality Assurance Group assessment of the project.

Adequacy of design process

The situation at the Bamras Hospital was well appreciated by the Australian Managing Contractors at the time the Project was implemented, due to the extensive collaboration and consultation between the ASC and Thai authorities prior to the preparation of the Project design document. However, at the time of the technical and mid-term review the baseline surveys were still incomplete. This had some adverse effects on the Project evaluation.

Choices for the broad approach of the Project were limited due to the selection of the HIV/AIDS treatment and care model to be implemented at Bamras. However, there were other options for scoping and phasing that may not have been considered.

In retrospect, the Project would have benefited from a planned inception phase. This would almost certainly have improved the baseline data available, permitting the Project to test assumptions, and was likely to have ensured a better process of engaging key stakeholders.

There is no record of the appraisal of the design.

Standard of design

The logframe matrix for the Project was clear and simple. While the design did not include an explicit link to poverty reduction, the link is clear as discussed further in Chapter 3. Issues surrounding gender and the Project are also discussed in Chapter 3.

The Project design document did not analyse the management structures within the hospital system. If it had, the design may have had the medical staff included to a greater extent earlier in the Project. Unlike Australian hospitals, all systems and processes in Thailand hospitals at some level report to a doctor (the director is also a doctor), not necessarily with management or administrative training or skills. A number of key clinicians were instrumental in the training and capacity building and lent their support to the aims of the Project from the start. Others were not supportive until they were brought on board later.

While the delayed inclusion of senior staff doctors did not greatly disadvantage the Project, it could not succeed and be sustainable without their acceptance of the increased capacity and skills of nursing and counselling staff and the greater role that these trained staff could play in patient care.

The design also did not take into account the difficulty of instructing doctors from outside Bamras in the ambulatory care model. Bamras is not a teaching hospital, and while medical students may spend some days or weeks there learning about communicable diseases, there are no interns or resident doctors who can learn about the systems introduced at Bamras.

Royal Thai Government inputs to the Project were costed and endorsed in the Memorandum of Understanding. However, during the implementation hospital management was unclear about what the counterpart contribution entailed until well into the Project, and this led to some difficulties.

The Project design document did not include a risk management strategy, but risks were addressed and managed in an ad hoc way.

Of the two major risks which affected the Project, the design document anticipated one but did not address how to manage it. This was that staff would not be given time off to participate in training and that they would have to attend courses in their own time. It is a credit to the commitment of the staff to upgrade their skills that they attended training in addition to their full workloads.

The risk that was not identified in the Project design was that there would be changes at the director and deputy director level at Bamras and in the Ministry of Public Health, which removed the strongest supporters of the Project from positions with direct control over its implementation. This risk is present in any Project and requires proactive plans to avoid any complications arising from such situations. The Project would have benefited from a clear and articulated risk management plan between the Project and major stakeholders sufficient to deal with changes in personnel and resources, minor changes in direction and to account for the inevitable changes that occur during the life of any project.

CHAPTER 3
ACHIEVEMENT OF PROJECT GOALS AND OBJECTIVES

"Staff have more knowledge, expertise and confidence but there are still lots of challenges including money, politics and personnel."

— a comment by a member of an external organisation

Approach taken by the Evaluation Team

The Project focused on developing within the ACU of the Bamras Hospital a model of care that would be integrated in nature and holistic in approach. This would optimise clinical outcomes for patients and families without, as far as practicable, increasing the use of resources. Such an approach needed to be supported by many parts of the hospital.

The Evaluation Team used several approaches to assess the extent to which the Project has achieved its stated objectives. The first was to examine the Project by considering the various activities undertaken and examining their outputs and outcomes. The second was to use the *Evaluation Framework for the Evaluation of Institutional Strengthening* document which was developed collaboratively by AusAID and the Albion Street Centre. The third was to undertake a simple cost/benefit exercise to examine the benefits from the Project. The Team also summarised the various components into those in which the Project was considered to have achieved its objectives and those in which the Project was partially successful, and not successful.

The Evaluation Team considered the Project's outputs and outcomes in the following groups of activities:

- Patient care components related to HIV infection including:
  - ambulatory care, in which patients who in a normal outpatient or emergency room would require admission, are dealt with and discharged within a few hours;
  - inpatients; and
  - outpatients.
- Special features relevant to HIV/AIDS but which are relevant throughout the hospital, not just in ambulatory care. e.g. counselling, information, education and communication (IEC) materials.
- General hospital modifications which facilitate the care of all patients. e.g. modification to patient flow, improvement of pharmacy and infection control.
- Training of Bamras staff as well as health care professionals from other hospitals in Thailand and from other countries.

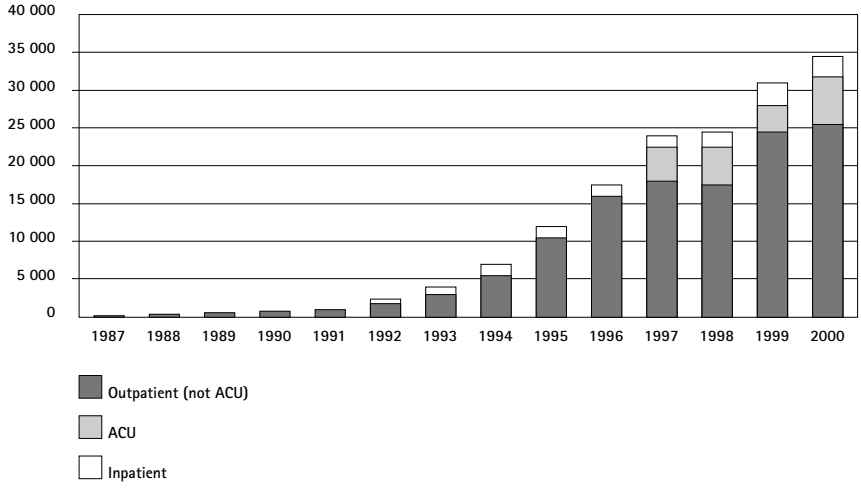
The workload related to HIV/AIDS

Prior to the Project, the number of patients with HIV infection attending the hospital had increased 45-fold between 1988 and 1995. This had resulted in management difficulties,

particularly the proportion of limited inpatient beds being occupied by people requiring investigations such as lumbar puncture, biopsies, infusions and blood transfusions.

The increasing number of HIV-infected patients attending Bamras as inpatients, outpatients and those attending ambulatory care is shown in Figure 1.

Figure 1: Total number of services to HIV-infected patients attending Bamras, 1987–2000, by patient category



Over recent years increasing numbers of patients with HIV/AIDS have required treatment. As the epidemic becomes more mature, patients are sicker and their illnesses more complex to manage. This is because health workers are now better at treating and preventing illnesses associated with HIV/AIDS than earlier in the epidemic. Therefore, people live longer and, in the absence of anti-retroviral treatment, become progressively more prone to develop the opportunistic infections that are characteristic of AIDS. While a patient previously may have presented with one opportunistic infection and died, now they survive to present again later with two or three illnesses. Patients require more complex treatment and care, drug interactions are more likely, and on any given presentation the patient is more likely to need procedures, more likely to require admission and, if admitted, more likely to remain in hospital for an extended period.

The Bamras AIDS caseload is characterised by people with two major and complex diseases, cryptococcal meningitis and tuberculosis. Cryptococcal meningitis is difficult to manage and frequently leads to death if untreated but it is not infectious person-to-person. In contrast, tuberculosis is infectious to other people, especially to those with HIV/AIDS, but also to staff who come into close contact with patients with TB. Thailand already has a significant problem with multi-drug resistant tuberculosis (MDRTB) and without careful and supervised treatment this can be a major problem for patients with HIV/AIDS, the staff caring for them and the community.

Ambulatory care

The Bamras Ambulatory Care Unit (ACU) was opened in March 1996. During the Project the newly renovated building for people with HIV/AIDS was commissioned. This contains two male, one female, and one TB ward, each of 26 beds, as well as counselling/social welfare and ambulatory care wards, each on a separate level. The Ambulatory Care Unit functions as a stand-alone section in which patients can receive medical and nursing care as well as counselling. Procedures can be undertaken in the ACU and patients can remain while a decision is made about whether they need to be admitted.

The ACU was not started by the Project, but the Project facilitated various activities related to it. The baseline Project survey identified that, in March 1997, 244 patients were seen in the ACU. Fifty one (21 per cent) were female and 193 (79 per cent) male; 51 per cent were from the local area; most (160 or 66 per cent) were aged 26 to 40 years and attended on Wednesday (105 or 44 per cent). Cryptococcal meningitis was diagnosed in 73 per cent of 79 patients where a diagnosis was recorded. The most commonly recorded investigation was lumbar puncture (80 or 33 per cent). The doctor performed the majority of investigative procedures. Follow-up appointments were recorded in the patient registry for 80 people (33 per cent); hospital admission was recorded for 79 (32 per cent) patients of whom 10 per cent were admitted to another hospital and the remainder to various wards at Bamras, including 13 per cent to the emergency room. While patients were more likely to receive a specific diagnosis by the end of the Project, this was due in part to the increasing proportion of patients that were repeat presentations to the ACU.

The staff profile in March 1997 was one physician, two registered nurses, one technical nurse and one nurse aide/patient assistant. There were limited written protocols or operating procedures and staff were not engaged in formal training programs at the time.

After the baseline report, the number of ACU patients increased and by April 2001 the ACU was providing care for between 15 and 50 patients a day, admitting three to five people a day, and operating five days a week until it finally became 24 hours a day when necessary (see Table 1).

Table 1: Patients attending ACU Bamras 1997–2000

	Total	Died	Admitted
1997	2701	10	205 (8%)
1998	3449	10	897 (26%)
1999	3718	8	1140 (31%)
2000	4193	3	1224 (29%)

Trends in HIV/AIDS service provision in 2001

While there is an increasing number of patients in the ACU there is also an increasing tendency for previous patients to re-present with recurrent or new HIV-related illness and for new referrals to attend the general outpatient department at Bamras.

In April 2001 the staffing levels in the ACU included three registered nurses, one technical nurse, one nursing aide and one doctor. The nurses have participated in basic and advanced training. Three have also had placements at ASC and are functioning as nurse practitioners as well as contributing to the on-going Bamras nurse training program. The physician attended the Project training and instructed the nurse practitioners in procedures including lumbar puncture, intravenous line placement and care and venipuncture during nurse practitioner training.

Nurse practitioners

The development of nursing skills and transition to nurse practitioners has meant that currently in the ACU, nurses:

- Assess and provide immediate care for patients, and record patient observations and the evaluation in the medical record.
- Organise baseline investigations as appropriate (X-rays, blood tests) prior to a review by the doctor.
- Insert and remove intravenous lines for therapy ordered by the doctor.
- Arrange and record admissions to the inpatient department and follow-up appointments.
- Rotate on a weekly basis to procedures (those on lumbar puncture duty usually perform about eight a day).
- Communicate with and know patients and families and provide education to facilitate home-based care.
- Refer patients or families to the counselling service as needed.

The Team was impressed by the skills of the nurse practitioners and considered them a valuable and integral part of the success of the Project.

Inpatient department

In March 1997, 400 beds were staffed at Bamras. There were 74 beds available for infectious diseases patients. Some beds were designated high dependency and the others self-help. Men with HIV/AIDS occupied 80 per cent of the male infectious diseases medical ward beds. Women with HIV/AIDS were cared for in the general medical wards accounting for 15 to 20 per cent of total female inpatients. There were nine nurses (three registered, six technical nurses or patient assistants) in a 30-bed ward. Bamras was one of the only institutions in Thailand where people living with HIV/AIDS were able to access surgery (in 1996, 62 of 1389 major surgery cases at Bamras were people living with HIV/AIDS).

There are now seven registered nurses per ward in the inpatient department. There are also technical nurses and nursing aides. Inpatients also receive care from professionals including counsellors, the nutritionist and the health educator. One doctor is responsible for each ward and a ward round is held daily. Nurses and doctors attend ward rounds together. The doctor performs all procedures except sputum and other sample collections and venipunctures.

The Project aimed to implement a multidisciplinary management model of care. While patients received care from a wider range of professionals, the multidisciplinary ward team meeting, which was an important element of the model, has disappeared. A number of doctors reported that members of the team had been assigned to other duties and were therefore unable to attend. For example, counsellors and nutritionists have major responsibilities outside inpatient departments.

Ward nurses reported that the multidisciplinary model had not been successful due to time constraints on medical staff, pressure caused by the number and acuity of patients and lack of support for the role of nurse practitioners in the inpatient wards. Some nurses also believed the multidisciplinary model was an ineffective and time consuming means of solving patient problems and that they could deal better with these through individual patient care or referral to counselling or other services.

From the point of view of medical staff, nurses function as practitioners more effectively in the ACU and triage than in the wards. Patient numbers precluded the doctors from much HIV counselling but they were aware of the counselling services and said that they referred difficult patients to those services.

Following baseline assessment and a number of Short Term Adviser reports, a specific TB ward was opened at Bamras. The ward occupied the fifth floor of the new HIV/AIDS facilities building. It is a well ventilated space in an open style with two hand washing areas. Two separate isolation rooms are used for patients with MDRTB. The airflow from these rooms appears to vent into the main ward area, suggesting that the ventilation needs to be checked by hospital engineers. To protect themselves from infection in the TB ward the nurses, doctors and other staff wear masks while caring for patients with MDRTB. However, not all HIV/AIDS inpatients with TB are cared for in this ward.

Tuberculosis still provides considerable problems for Bamras and Thailand. The Team was advised that in some hospitals in Bangkok diagnosis was still being made predominantly on chest X-ray evidence and that, even at Bamras, treatment compliance was only about 50 per cent.

Patients who were diagnosed with HIV/AIDS and TB and sent to Bamras no longer automatically received free TB medication as did people diagnosed and treated outside Bamras under the National TB Program. The reason for this was not fully investigated by the Team. If not already the case, Bamras needs to be defined as a TB centre so that it may access the National TB Program's drugs, as well as the routine use of directly observed therapy. Directly observed therapy ensures individuals are well treated and that there is little risk of developing drug-resistance due to stop-start treatment.

Outpatient department

At baseline in March 1997, the Bamras outpatient department was located in a newly renovated ground floor area of the hospital consisting of 10 separate cubicles each with an area for a doctor and an attending nurse. Three doctors worked in the outpatient department.

HIV/AIDS outpatient clinics were held on Wednesdays, when 400 to 600 patients were seen. Medical care, HIV assessment and testing were performed.

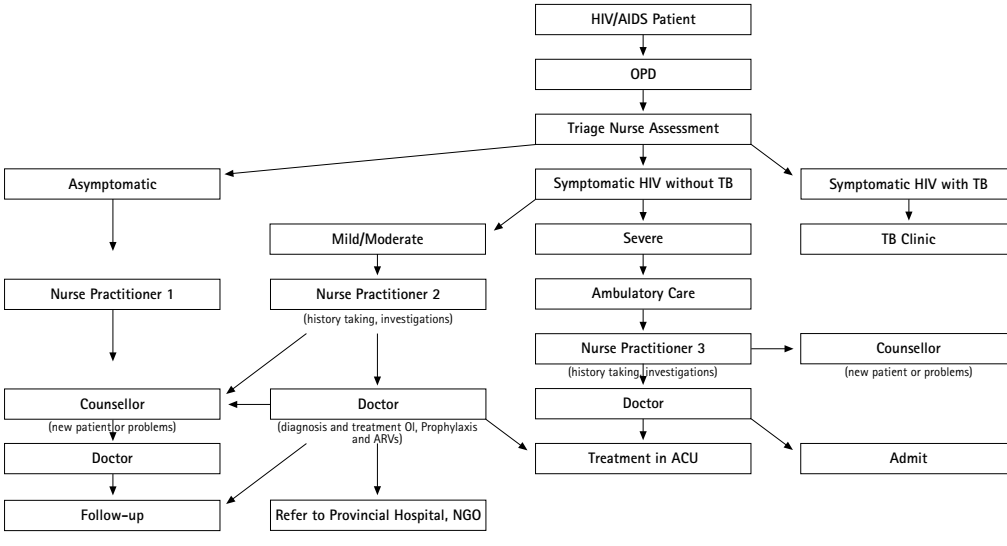
Prior to March 1997 patients were seen on a 'first come first seen' basis. As a result, patients with HIV/AIDS began arriving at the hospital on Wednesday mornings as early as 4 am. Over the period 1996 to 2000 there was a 136% increase in HIV/AIDS attendances at the outpatient department (from 13,426 to 31,674 annually).

Now four doctors attend each day and most doctors start outpatient clinics following a ward round of inpatients.

Patients are first seen by a triage nurse, who asks an initial set of questions, notes problems presented by the patient, assesses acuity and directs the patient to an appropriate level of treatment (see Figure 2). Trained nurse practitioners normally see the patients, take preliminary observations and determine if tests are required before the patient sees a doctor.

Flow pathways have been designed for the flow of outpatients (as in Figure 2) and protocols have been written.

Figure 2: Outpatient Flow Chart 2001



On Wednesday mornings there is an anti-retroviral clinic. Patients are advised regarding costs of ARV and generally only those who can afford to pay attend these clinics, plus a small group who have been selected to participate in trials. There is also a separate option for people who wish to receive anonymous HIV testing following pre-test counselling organised in the counselling department.

Outpatient management of symptomatic HIV/AIDS patients is focused on care of TB, skin disease and other HIV/AIDS related conditions. Patients are treated according to WHO guidelines with almost all receiving co-trimoxazole for PCP prophylaxis. Baseline screening tests for TB, hepatitis and syphilis. HIV-related lymphocyte tests are performed according to patient ability to pay (500 baht/A$25) and are usually limited to one each six months for

those on anti-retroviral therapy. Viral load or HIV RNA estimation is performed by the Bamras laboratory, but clinic patients can rarely afford these outside clinical trials (about 1500 baht/A$75).

The number of people living with HIV/AIDS who attend the outpatient department continues to increase. Despite the impending registration and co-payment system in Thai health service provision[9] it is likely that more people with HIV/AIDS will attend for treatment, increasingly requesting ARV therapy at Bamras. The combination of expertise and improved systems makes Bamras an obvious location for the introduction of more widespread ARV treatment and monitoring, should this prove feasible[10]. Furthermore, if Bamras is to attain Standard of Care 2001, which includes increased anti-retroviral treatment access, then greater access to ARV will be required. The opportunity for clinical research, with appropriate support, also exists at Bamras.

Any financing formulae or cost benefit analyses for anti-retroviral treatment need to take into account the current high presentation rate, the high admission rate and the prolonged length of stay associated with HIV/AIDS (see Audit of Patient Notes). Anti-retroviral drug treatment should lead to a fall in incidence and decreased length of treatment associated with opportunistic infections. On the other hand, ARV treatment is expensive, required for life, and requires regular testing of drug efficacy and toxicity.

Antenatal clinic

Bamras has long provided antenatal care to women and their partners from the local Nonthaburi district. As the numbers of women with HIV infection increased, in September 1996 Bamras established an antenatal counselling service. All women are now offered HIV and syphilis testing at initial assessment and again at 34 to 35 weeks of their pregnancy. Prior to September 1996, both pre and post-test counselling was performed in groups. Now counselling at the antenatal clinic (ANC) has changed to group pre-test HIV counselling and individual post-test counselling. A focus of the counselling is prevention of new HIV infection especially during pregnancy. Nurses report that about 80 per cent of the partners of HIV positive women also attend for counselling.

It is the policy of Bamras ANC that all ANC patients are offered HIV testing, and it is in compliance with Thailand Ministry of Health policies that all HIV positive mothers receive anti-retroviral therapy as a routine prevention intervention. In 2001, all HIV positive mothers are offered zidovudine or nevirapine and advised against breast feeding. Some are able to acquire supplemental alternative milk powders while others are subsidised.

The ANC staff profile includes three nurses, one technical nurse, one practical nurse, one counsellor, one assistant and one doctor. The nurses have participated in Project training at basic and intermediate level. The counsellor has also attended training.

9 The Royal Thai Government plans that hospitals will have more clearly defined roles e.g. Bamras will only function as a referral hospital, and patients will have to pay some part of each consultation (i.e. a "co-payment" with the government meeting the rest of the payment).

10 Although the cost of ARV treatment is falling, it is still at least US$500/A$1000 a person a year, for life.

Audit of patient notes

Improved counselling services are one of the most important outputs from the Project. Table 2 indicates counselling services and impacts related to HIV/AIDS in various areas of Bamras. The data have been collated from mini-audits of patient notes. The table indicates that tangible results of the counselling training are occurring daily. Almost all patients are receiving appropriate pre and post-test counselling and a significant proportion are receiving extra counselling and/or help from social work services.

Table 2: Results of audit of patient notes (n=25 in all cases)

	Outpatients	Ambulatory Care Unit	Inpatients TB Ward	Inpatients (male)
Age (average)	37	32	36	34
Gender (% female)	32	48	24	Male ward
Average attendances to outpatients per month after first time at Bamras with diagnosis of HIV/AIDS	0.7	1.0	0.8	3.3
Length of stay (days)	–	–	10.2	10.4
Number receiving pre/post test counselling	20	19	9	14
Number receiving additional counselling	12	15	6	12
Number receiving social work services	11	13	10	8
Number who knew diagnosis prior to arrival at Bamras	–	–	19	16
Number who died in hospital	–	–	7	2

This table also reflects the high workload associated with Bamras' HIV/AIDS patients (the high rate of presentations per month to outpatients) and the high proportion of inpatients who had their disease diagnosed elsewhere. The latter has particular implications for proposed changes in which Bamras would primarily be a referral hospital. It appears that a high proportion of people with HIV/AIDS are already being referred to Bamras.

Counselling

HIV/AIDS counselling has come to mean a series of interactions between a healthcare provider and patient which assess the premorbid state, strengths and vulnerabilities of the client and responds to their needs and those of their family or carers in an accessible, non-judgmental, holistic and confidential manner. Prior to the Project, although counselling was conducted, no formal training had been provided in assessment, diagnosis or therapy in anxiety disorders and mood disturbance, sexuality counselling, behaviour (sex/drug use) assessment, grief and bereavement counselling, suicide risk assessment and management, or nutrition counselling.

During the baseline survey (May 1997), 346 patients attended the counselling unit, 202 of them (58 per cent) for individual counselling. The busiest day was Wednesday, which was the HIV/AIDS day in the outpatient department and the meeting day of the Candle Light for Life

Club, a self-help group for patients. Most clients were aged 26 to 30, 58 per cent were male and 160 (50 per cent) of those with data recorded were married. One hundred and seventy (49 per cent) attended for pre-test counselling, 100 (29 per cent) for post-HIV test counselling and the remainder for general advice/counselling. Of those attending for pre-test counselling, 100 (59 per cent) were symptomatic from their HIV infection at the time of testing.

The head of the counsellors is a very experienced nurse who attended all levels of training for counsellors during the Project and undertook a placement in Australia. There are a number of specialist counsellors. Two attend the antenatal clinic, one is available to the TB clinic, one to ACU and at least one is available to outpatients, inpatients and the emergency room. These are nurses who have undertaken Project training and have gained practical skills in HIV counselling. Eight to 10 other nurses who attended basic counselling skills courses use these skills in general patient care.

The number of people receiving counselling is shown in Table 3, which indicates the rapid growth and demand for counselling services.

Table 3: Trends in number and type of counselling

	Individual Counselling	Phone Counselling
1996	2714	–
1997	4171	610
1998	4399	1680
1999	5287	1567
2000	6583	1650

An audit of 26 case notes from the antenatal clinic by the Team indicated that all 26 patients had given consent for testing, all had received pre-test counselling (often in groups) and all but two had received individual post-test counselling. Most patients (76 per cent) attending the ACU had also received pre/post test counselling and of those who had not, it was clear that they had already been diagnosed HIV-positive prior to attending Bamras and/or were extremely ill on arrival and unable to be counselled.

Incorporated into the counselling unit is nutrition counselling. One specialist nurse who has received the basic and advanced nutrition training provided by the Project undertakes this. She also completed a placement at the ASC. As well, there are 11 nurses who have undertaken basic nutrition counselling training who incorporate this into general patient care. Two dieticians and a number of food service officers also attended basic nutrition counselling training.

By 1999, 204 patients were being seen for specialist nutrition counselling and, in 2000, 307 people were counselled. Most seek advice only once. Twenty-four per cent attend again for further nutrition advice. Referral sources are nurses and occasionally doctors, but patients most often self refer. The most common reason for seeking advice is progressive weight loss (53 per cent) and other reasons include difficulty swallowing, diarrhoea and nausea.

The focus of nutritional counselling includes:

- Food hygiene to prevent opportunistic infection e.g. salmonellosis.
- Calorie intake to optimise high-energy foods and prevent further wasting.
- Regional differences in food availability and tastes.
- Need for high protein and inexpensive foods.
- Lactose intolerance and management.
- Management of diarrhoea.

A great deal of counselling occurs in the hospital. The importance of counselling is not just that it helps individuals cope better with their disease. Counselling is also an important intervention for preventing transmission and for helping families cope. Discussions with Bamras staff, patients, carers, families and external agencies indicate that the counselling conducted by Bamras is highly regarded and is considered one of the most important outcomes of the Project.

Pharmacy

Training and changes within the pharmacy have led to better stock management and better standards of service for patients. There has been an increase in staff and an amalgamation of two separate pharmacies. The benefits of the amalgamation have been staff stability and storage efficiencies. As well, there has been one service area allocated specifically for ANC patients. However, waiting time remains a difficulty for patients attending the pharmacy. While the target is 20 minutes, most patients wait well beyond 30 minutes. Pregnant women wait for a shorter time, about 15 to 20 minutes. This is partly due to computer (software and system) and cashier delays, but is also due to the time taken to better package drugs and prepare instructions on their use for patients.

Further developments are planned, and these include involving the pharmacy in multidisciplinary teams (where these still occur) in the inpatient department and more pharmacy involvement with doctors in clinical trials and in training nurses. However, this remains conditional on pharmacy obtaining more staff. Adverse drug reaction reporting is not effective because of difficulty with compliance of staff. Except for occasional phone calls, the pharmacy is not involved in interactions with medical staff (such as participating in ward rounds and providing clinical pharmacology).

The director of pharmacy considered that the Project had led to a major effect on patient safety and good medication management. She highlighted the following benefits:

- IEC materials on pharmaceuticals are available for HIV/AIDS and TB patients. They are given out if a patient requires or requests them. Some IEC materials are available for patients to pick up if the patient is concerned about disclosure to staff.
- Improved narcotic control. These agents are now locked in ward and pharmacy stores and documentation has improved. Previously there were no records or checking system. There is a designated person in each area who has the key and ward shifts and pharmacy staff (when they have time) count narcotics. In pharmacy there is a locked cupboard for morphine, codeine, methadone and other narcotic drugs.

- An audit trail for purchasing and packaging medications has been instituted.
- Manufactured items are now labelled with an expiry date. This did not occur prior to the Project.

The changes in the pharmacy contributed to the success of the Project.

Infection control

Training for infection control has occurred for a number of occupational groups and represents a significant improvement for the hospital. The staff are enthusiastic and it is obvious that liaison with the wider hospital is of benefit. Data was available only for 1998 in terms of blood exposures. During that year 20 injuries were recorded, 50 per cent with a hollow needle, 20 per cent in a medical department and 25 per cent in surgery. These numbers appear low, but the Team did not have sufficient data to assess the impact of infection control interventions.

Staff health checks now include annual chest X-rays, tuberculin testing and assessment of hepatitis B virus status and vaccinations. In 1998, 830 people were assessed and in 1999, 684 were assessed.

The infection control practitioner was interviewed to assess the impact of the Project on this activity of fundamental importance to quality patient care. There have been substantial changes in this department over the past four years. Those identified as being related to the Project were:

- Improvements in occupational health and safety, in particular training in infection control principles and health care worker screening and injury management.
- Better waste management, which has been initiated with metal disposal units being replaced by more easily incinerated plastic ones.
- A separate ward to isolate TB patients from non-TB infected HIV/AIDS patients.

Other changes which have taken place but which may not be directly attributable to the Project include:

- Appointment of a full-time infection control practitioner (There was no infection control practitioner at Bamras until four years ago).
- The Infection Control Committee system has been upgraded (ISO accreditation).
- Nosocomial infection surveillance started two years ago by ward infection control nurses.
- The Infection Control Unit produces a monthly report for the Infection Control Committee, management and each department.
- Testing, treatment and counselling after occupational injuries are available 24 hours a day.
- The infection control practitioner who is responsible for protocol development has completed seven and is working on others.

The Team was generally impressed with the changes that have occurred in infection control but recognised that there was still room for improvement, especially in monitoring high risk events such as needle stick injuries.

Palliative care

It was not possible to comment on outcomes in relation to palliative care. Doctors received some information during a brief visit to Australia and the Team noted that a course was planned to start shortly after the evaluation. The Team reviewed the course content and considered that it was appropriate and likely to lead to improved services for people with HIV/AIDS.

Laboratory services

HIV/AIDS and the Project have had an impact on the Bamras laboratory services. In some areas the laboratory has had more work and some of it is more complex. The number of HIV tests has decreased in recent years although the proportion positive from each area of the hospital has remained about the same. The decrease in numbers is thought to be due to the downturn in the economy. This downturn appears to be at an end. For instance, the number of white blood cell tests requested increased in 2000 and preliminary data for 2001 showed the number to be even higher. (White blood cell tests are used as a proxy for workload). In contrast, and reflecting the impact tuberculosis is having on the hospital, the number of tests for tuberculosis has increased every year from a little more than 3000 in 1994 to more than 8300 in 1999.

The Project facilitated visits to Australia for laboratory staff and this was valuable for establishing better quality control and various processes that contributed to readiness for accreditation. Many protocols were obtained and modified where appropriate. However, it appears that the Project's role could have been better managed.

This part of the contract was sub-contracted and the sub-contractor does not appear to have performed well. For instance, laboratory training in Australia appears not to have been at the most appropriate laboratory facility, sub-standard accommodation was provided, there was inadequate assessment of training needs, and there was culturally inappropriate management of the visit. Payment of per diems was also slow. While the Project facilitated liaison and meetings for laboratory staff to obtain skills and protocols for quality assurance and accreditation, it has left some laboratory staff dissatisfied, and the Team considered that this dissatisfaction was legitimate. The STA reports for the laboratory components of the Project were not the high standard of most STA reports.

Where subcontracting occurs, it is essential that processes are in place to ensure appropriate levels of consultation, that the sub-contract is appropriately managed and the output evaluated. There needs to be clear terms of reference, detailed plans for visits, explanation of methods to be used and for ensuring quality and evaluation and these must be articulated in the contract prior to departure. This also should include ensuring that reports are of an adequate standard.

Development of protocols

At baseline in March 1997 it was reported by STAs that there were a limited number of protocols to guide good clinical management of HIV/AIDS patients at Bamras. During the course of the Project, Bamras applied for and received accreditation (ISO9002) which served as an impetus to protocol development. By April 2001 there were 29 completed protocols for review from ACU and the inpatient department. These were translated from Thai, were of a standardised format, were referenced and of high quality. These are shown in **appendix 6**.

Library services

The Team was unable to identify if utilisation rates of the library have changed over time. It presented as a pleasant open space on each occasion it was visited. Table 4 indicates the number of activities occurring in the library but no trend data were available.

Table 4: List of library activities in 1999

Customers	6573
Books borrowed (Thai language)	568
Books borrowed (English language)	83
Journals borrowed (Thai language)	212
Journals borrowed (English language)	304
Assisted searches	138
Assisted outside searches	48
Photocopying	72

There have been some major changes in the library since the start of the Project including:

- More journals. In 1995 there were 35, in 1996, 40; and in 1997, 46.
- A reduction of lost journals and books due to the introduction of a bar code system.
- There are now 1600 books including high quality infectious diseases and general medicine texts.
- A computerised bibliography exists for 1280 of the 1600 library items.
- Web-based technology is hampered by the slow system (via Ministry of Public Health).
- A new computer arrived in December 2000 from Project funds.

There are a number of on-going difficulties with the upgraded library facilities. The level of computer skills appears insufficient for the librarian to manage electronic texts or journals, much less integrate library functions over the Internet. There is no evidence that the library resource is being better utilised.

Training activities

Bamras has provided training in infectious diseases and HIV/AIDS care for a substantial time. However, there was no formal structured education program. During the needs assessment for the Project it was identified that staff were recognised as experts in some fields and were being requested to deliver training lectures. However, staff lacked time and to some extent confidence in organising and delivering a comprehensive training program. Nevertheless, a floor of conference rooms was upgraded and specifically allocated to training and this space, as well as the auditorium, was used by the Project. The Project assisted staff to develop their own training skills and provided additional training in new areas.

Many people have been trained from throughout the hospital, not just the ACU. Some have been trained in Australia. It is particularly noteworthy that staff have attended training in addition to their normal duties, indicating a major commitment.

Course topics have included general information to destigmatise HIV/AIDS, which has been provided to about 75 per cent of hospital staff. The training has included basic HIV/AIDS knowledge, transmission, prevention and clinical management skills.

A variety of subjects have been taught to diverse groups including nurse practitioners, counsellors, nutritional counsellors, pharmacy, laboratory and library staff, doctors concerning palliative care, infection control for nurses and doctors and research methods for doctors.

However, these courses did not extend to junior doctors because there are no Thai medical residents, registrars or trainee physicians working with the ACU physician or elsewhere in Bamras on HIV/AIDS. Bamras is not, and will not become, a teaching hospital. However, medical students visit the ACU for short periods (one to two weeks), as do large numbers of national and international physicians, nurses and others including postgraduate students, health bureaucrats and planners (see **appendix 4** for a partial list of visitors).

Over the first period of the Project there were 60 training courses conducted at Bamras, as shown in Table 5. Details are provided in **appendix 7**.

Table 5: Training courses conducted at Bamras, 1997–2000

Year	No of courses	People trained
1997	4	225
1998	15	219
1999	20	580
2000	17	476
2001 (to April)	4	72
Total	60	1572

Training for nutrition counselling has been one of the successful components of the Project, as discussed earlier. The courses have been adapted to reflect Thai specific issues and to ensure safe food handling.

One training course (infection control) was aimed at doctors. Twelve doctors attended some part of the three-hour basic training module with four completing an evaluation and two grading it as good. Generally, the doctors at Bamras benefited from other training options (e.g. WHO, conferences, workshops, seminars) and identified little gain from the Project's formal training sessions.

Initially, teaching modules were sent to Bamras in English, where project office staff translated the materials into Thai. At first, Albion Street Centre STAs delivered much of the training program, facilitated by Bamras staff, and later Bamras staff delivered courses under supervision. Post-course evaluations were initially implemented and analysed by STAs, but as part of the skills transfer, Bamras staff were taught how to implement evaluations of course content and style.

Core trainers put together training courses for the Training Centre. Subject matter was based on components that had already been taught by STAs as well as components that were designed by Bamras staff using skills gained through 'train the trainer' courses. Subject matter was pre-approved by the Project Monitoring Committee before any courses were delivered.

While the Training Centre had already trained Bamras staff and people from other organisations inside and outside Thailand, some staff were nervous about extending their teaching outside Bamras and particularly outside Thailand, but could do so. In the view of one member of the Team: 'It is better to improve and perhaps save some people's lives with imperfect training, than no lives while waiting for perfection.' A major concern of the Evaluation Team was the slow development of Bamras as a National and Regional Training Centre.[11]

The nurses involved in the training noted improvements from the Project including:

- Improved nursing specific HIV/AIDS knowledge and skills among general nurses and particularly among nurse practitioners in the outpatient department and the ACU.
- Better understanding of infection control principles in relation to HIV.
- Increased confidence in ability to care for and support individuals with symptomatic HIV infection.
- Augmentation of counselling skills, with general nurses now able to provide basic support in the in-patient department and to confidently identify and refer complex patient to specialist counsellors.

11 After the evaluation a six-month Project extension provided additional training and assistance to sustainably establish the Training Centre. Activities included:
- Further developing the courses to be offered.
- Establishing a working committee to discuss implementation.
- Developing course timetables/calendars and a costing structure aimed at cost recovery.
- Developing IEC material for the centre (a printed booklet, poster and a website).
- Developing a promotional video.
- Marketing. A comprehensive marketing exercise was undertaken in September/October 2001 throughout Thailand.

- A newly developed system for internal and external training of health care workers in HIV/AIDS management, theory and practice.
- Empowerment and motivation to professional development in future.

The counsellors involved reported:

- Increased confidence and pride in their ability to deal with distressed patients with HIV/AIDS, including those with psychosis.
- Improved ability to assess and manage difficult patients including those with suicidal tendencies.
- An enhanced ability to care for troubled patients with HIV/AIDS at Bamras with referral of only the severely psychiatrically ill to Syrithanya Hospital.

The Team observed the nursing workshop in ambulatory care nursing on 2 May, 2001, and noted the following outcomes in relation to training:

- 30 participants were present, seven from Bamras and 23 from other hospitals including two from Khon Kaen Regional Infectious Diseases Hospital (CDC).
- There were high quality presentations of case-based learning scenarios from each of about five small groups.
- Professionally presented workbooks were provided to interested participants to further HIV/AIDS specific management strategies for cryptococcal meningitis and PCP.
- The *Manual of Nursing Care for HIV/AIDS* produced by Bamras and the AIDS Division of the Ministry of Public Health was available for participants.
- Handouts of IEC material about the content of the workshop were available to participants.
- The atmosphere was relaxed and professional and two participants stated how much they enjoyed and benefited from the information and practical skills components of the course.
- The participants were scheduled to go for placements in a community based care program over the following days.

For doctors, six medical research scholarships were able to be funded under the Project, rather than the originally planned three. The topics are listed in **appendix 8**. Because the research fellows were starting their projects at the time of the evaluation it was not possible to be clear about the likely outcomes. The Team was able to see one detailed research protocol and that was satisfactory.

The Team was impressed at the quality and extent of training that had been conducted at Bamras. Maintenance of staff training is essential if changes associated with the Project are to be sustained.

IEC materials

One of the important resources for patients and families affected by HIV/AIDS is information. Twenty-two leaflets on aspects of HIV/AIDS are available and provided for all patients and families visiting the Bamras counselling unit. The leaflets cover medication (1), safe sex behaviour (1), testing and the test result (3), general knowledge of HIV/AIDS (1), self care and support (2), life skills (1), nutrition for patients with HIV/AIDS (9), hospital services and assistance (3), and families living with HIV/AIDS (only one, produced by another organisation).

Overall, IEC materials for patients and families are culturally appropriate, the content is relevant, they are satisfactorily produced and they meet the patients' major concerns (see **appendix 9**). The materials on nutrition for people living with HIV/AIDS and physical problems are provided to those who attend the nutrition training course.

Particularly noteworthy is that only about 15 leaflets were produced as Project activities and the remainder were produced independently by Bamras staff, indicating significant commitment to the process and a strong element of sustainability for this element of the Project.

The leaflets produced by the counselling unit are distributed to all new patients and families by the counsellors. They are also available for patients and families at the ward, distributed by health educators and nurses and at the self-help group known as the Candle Light for Life Club. The counsellors visiting the ACU, the outpatient and inpatient departments take leaflets and distribute them to their patients. Leaflets are not available at the outpatient department except at the ANC. At the ANC, written IEC material is now available, aimed at the baseline level of education and knowledge among mothers. Such material is handed to patients and is accessible without request.

The hospital pharmacy has also produced leaflets providing information on how to take medicine, with one for each of nine medications[12].

Although there was a lack of IEC materials for families about the provision of care for people living with HIV/AIDS, three leaflets were being produced by nurses at the time of the evaluation. These included caring for patients who have had a lumbar puncture, caring for symptomatic patients and caring for and living with people with HIV/AIDS. It is recommended that preparation and provision of IEC materials for families or carers should be emphasised because the number of patients has increased and more care is required at home and in hospital. The availability of IEC materials could be improved and made more convenient for collection at ACU, the inpatient and outpatient departments.

Production of new and reprinting of existing materials was initially supported by the Project. The pictures are colourful and of good quality. The counsellor reported that the leaflets can be produced and reprinted again by hospital support funding but the quality may not be as good.

12 Zidovudine, Didanosine, Co-trimazole, Pirazinamide, Ethambutol, Rifampicin, Cotrimoxazole, Indinavir and Itraconazole.

Patient satisfaction

Two patient satisfaction surveys were undertaken during the Project. The first was exclusively for HIV/AIDS patients in 1999 and the second, in June 2000, was not exclusive to HIV/AIDS patients. In the second survey, 571 patients of 669 (85.4 per cent) selected 'randomly from several outpatient services' completed the questionnaire. Self-designated HIV status was recorded by 454 patients (37 per cent HIV infected, 4 per cent unsure, 58 per cent HIV-negative[13]). Five hundred and sixty one individuals (98.2 per cent) recorded the visit number and 24.6 per cent of them were first time attendees. This anonymous eight sub-section questionnaire graded items on a five-point scale which finally converted to a value between 0 and 100. Mean values for doctors, nurses, social workers, counsellors, pharmacy staff, registration porters and nurse assistants were presented. The resultant scores suggest good patient satisfaction but the Team considered that methodological issues precluded definitive conclusions[14].

Official complaints from patients about service difficulties are not made often but there is a process for patients to do so. The complaint initially goes to the deputy president of the Candle Light for Life Club then the head of social work followed by a written complaint to the director of Bamras. A response is received from the involved department.

Candle Light for Life Club

The Candle Light for Life Club (CLC) is a self-help group that operates from rooms in the counselling building and is partly funded by Bamras and the Ministry of Public Health with the remainder of the funds donated or earned by the members. Many individuals with HIV/AIDS remain fearful of disclosure, especially in general hospitals where they can be identified (by skin blemishes). At Bamras, patients felt that they were treated as normal people, making them less fearful. The Team interviewed members of CLC in a focus group and asked specifically about changes in HIV/AIDS health care provision at Bamras over the past five years. The number of attendees who attended the club, including those who attended but died during the year, can be seen in Figure 3.

CLC members are also involved in informal counselling and the numbers counselled are shown in Table 6.

The problems identified at Bamras by the members of the CLC were:

- Delays in seeing doctors and at the pharmacy.
- Budgetary stringencies.
- Individuals, especially peer support workers, becoming ill due to 'not looking after themselves' and being lost as senior support people in the CLC.

13 Percentages do not add to 100 due to rounding errors.

14 Eg. The mathematical/statistical validity of the analysis of data was questionable The sample is not random and it is not possible to identify what biases may arise from the sample that was surveyed.

Figure 3: Attendances at Candle Light for Life Club, Bamras, 1996–2000

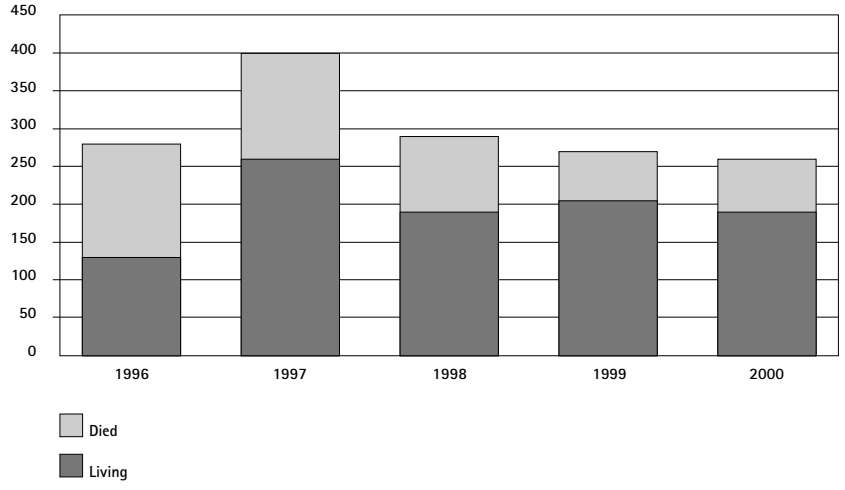


Table 6: Counselling provided by the Candle Light for Life Club

	1996	1997	1998	1999	2000
Individual	3210	2600	3120	720	2160
Hotline	2600	3120	2600	1520	1960
Group	720	720	720	360	560

Patient, family and health care worker views

Patients and families were asked for their views of the hospital and the CLC and the information was correlated with that from staff. There were focus groups of patients, family members and carers and in-depth interviews with health care workers (one nutritional counsellor, one social worker, two nurses at ACU) plus observation at the ACU.

Patients receiving treatment from the ACU are from Bangkok and from outside the city, many from distant parts of Thailand. Most of them are poor and in marginalised groups. They often have difficulty accessing care and support services. Patients are often seen at the ACU at an advanced stage of illness. However, patients expressed positive feelings about the support and care received.

One patient said:

> *'I receive what I need from nurses and counsellors such as getting free drugs and treatment, also financial support for the five-year-old child to be at school. I had better access to treatment and care during the illness. My wife also received care here until she died last year. I am now really sick and need some place to spend the last of my life. So I hope that I will receive care here again.'*

On the value of the hospital he said:

> *'Life without hospital support would be significantly more difficult and my life would end earlier.'*

The focus group at the Candle Light for Life Club reported that access to the club is very useful for patients and their families and leads to increased support and care. Group support and counselling and the provision of educational materials, in addition to hospital services, are a major source of care to improve the social wellbeing of patients and families. Another patient who visits the Candle Light for Life Club also told of the benefit she receives:

> *'I usually came here when I visited the hospital taking my husband who died last year and I am now taking my brother. I am also HIV-positive and my daughter is too. It was just helpless before I came and I had too many worries about my illness. Now I feel more relaxed and have learned how to take care and live well like other people. It is not learned just from the counsellor, but it is from people living with HIV/AIDS here too.'*

There were also comments regarding hospital staff:

> *'Staff nurses here give us more help and hope even though there is sometimes long waiting times. I know this is because of a large number of patients and the insufficient number of health care workers, especially doctors.'*

Patients prefer Bamras for a variety of reasons. The main reason is that, in the words of one patient:

> *'There is a specialist doctor with a solid reputation. Nurses here also have better skills and are more supportive. I have come here several times and learned from the nurse how to take care of my husband. I learn by observing what nurses do and asking questions if something is unclear to me.'*

Changes reported by several sources to have occurred during the Project included:

- Staff had developed greater expertise than that found at service providers in other hospitals/clinics, although substantial expertise had always existed at Bamras.
- Confidentiality had improved.
- Other hospitals and treatment facilities had slower diagnosis and often provided no treatment.
- Bamras staff always treated patients with care but in the HIV/AIDS area this is even better than prior to the Project.
- Patient understanding of HIV/AIDS had increased and this made dealing with HIV/AIDS less problematic.
- Patients with HIV/AIDS had increased access to counsellors, nutritionists, doctors and nurses.
- Access to hospital care improved, especially in outpatients where service had been provided in two consulting rooms one day a week and by 2001 had increased to 10 rooms every day. (This was concurrent with the Project rather than attributable to it).

Focus group discussions with family members highlighted some issues that still need attention. The care and support for people living with HIV/AIDS is more client-centred than family-centred. Family members have less opportunity to get involved with the Candle Light for Life Club or other support groups. There is insufficient information relevant to the provision of care. The benefits of a shift from the present hospital-based care to home-based or community-based care are increasingly important to rationalise services and create a balance between care at home, in the community and in hospitals. In particular, sometimes the family (or even the patient) did not know about resources, especially the IEC material. This could be readily addressed by ensuring the material is available in the ACU.

External organisations views of the Project

The Team visited external organisations with interest in HIV/AIDS including UNAIDS, UNICEF and MSF. Not all had dealt with the Project although all knew of it. The consensus was that it had provided significant skills and training in Thailand and had generally improved patient outcomes. The major criticisms were that the Project had not improved palliative care, nor been able to provide anti-retroviral drugs. Comments were also made about the failure to engage stakeholders sufficiently, the lack of sufficient progress in establishing a regional training centre and the continued isolation from academic and research institutions involved in HIV/AIDS.

There were limited links with other HIV/AIDS research and care institutions e.g. Red Cross, HIVNAT, leading to lack of collaboration in clinical research, limitations on access of Bamras patients to trials of ARV, and patients of other institutions to Bamras quality patient care. The Team noted that many patients appeared to self-refer to Bamras.

The Team had limited contact with universities, but the links between the Project and universities appeared weak. This was not surprising once it became clear the Bamras is a CDC hospital whereas universities are administered by a different government department and have their own hospitals.

The Bamras model was considered by external agencies to need modification for application in most parts of Thailand and in the international region to include a community care component. In most areas in Thailand (and probably in the region) HIV/AIDS is dealt with in communities probably more than in hospitals.

The external agencies noted that if AusAID was to replicate the project it would need to consider the existing and potential bilateral and multilateral aid arrangements within Thailand or in other countries. Communications with WHO would be important as many of the initiatives conducted under the project relate to WHO's global mandate. The regional role of Bamras needs to be strengthened by developing good links with WHO, UNAIDS and others.

The external agencies also noted that it would be useful to carry out another review of the project in a few years to examine the longer lasting practices at the hospital.

Consideration of poverty

Bamras is a public hospital, primarily used by people who are unable to afford health care at private hospitals. Wealthy people can buy medical care and receive a good level of service, often at private hospitals, and all civil servants receive a reasonable level of medical care as part of their conditions of service.

People living with HIV/AIDS who come to Bamras are likely to be poor because they are often unemployed (they might have lost their jobs due to illness or their HIV-positive status) or family and former friends might have shunned them. Although they may have been diagnosed as HIV-positive some years earlier, they will not present at the hospital until they are very ill, usually with an opportunistic infection, because they cannot afford to visit a doctor for trivial matters. When they come to hospital they often require extensive and expensive treatment.

At Bamras, all patients receive free medical service (consultation), hospital accommodation and food. Where they have the capacity they pay for X-rays, laboratory services and medication. However, social workers at the hospital can waive these costs.

The poorest, for example, single people with an income of less than 1800 baht (A$90) a month, are eligible to receive free medical assistance. This is also provided to all children under 12, the elderly, Army personnel and disabled people.

There are three sources of funding for assistance provided to low-income people, children and other disadvantaged people at Bamras:

- Government (Social Security) – The hospital used to give an estimate of requirements at the start of the year, and then an accurate figure at the end, and was then reimbursed. Now the hospital identifies its expenditure at the end of the year and it is reimbursed from a 'pot' of government money, according to its percentage of expenditure relative to other agencies that have also expended money on low income people and which are to be reimbursed from the same source.
- Government (HIV/AIDS) – There is an annual allocation, which appears to come from CDC.
- Hospital funds – Money from patients who pay.

The only service that is not available free, no matter how poor the patient, is the provision of anti-retroviral drugs (except in drug trials).

It is the poor patients who benefit most from ambulatory care, the caring, non-judgmental approach and counselling and other services. While not part of the Project, the assistance available from social workers is a key element.

Although the issue of directing aid towards alleviating the effects of poverty was not specifically addressed at the design stage, the Project has had its greatest impact on poor and disadvantaged people.

Consideration of gender

Relatively little data were available to assess the impact of the Project on gender issues.

However:

- Data from throughout Thailand indicates that males are more affected by HIV/AIDS than females and Bamras patients reflect the wider epidemic. The proportion of female patients seen in outpatients, the ACU and inpatients was 32 per cent, 48 per cent and 24 per cent respectively.
- The initial beneficiaries of training, i.e. hospital staff, are overwhelmingly female e.g. about 95 per cent of nursing staff are female, as is the director of the hospital and many senior staff.
- Of the staff specifically employed by the Project in Thailand there are about equal numbers of males and females.

All of the female staff employed by the Project received opportunities for further education.

The Evaluation Framework for the Evaluation of Institutional Strengthening

The Project developed a framework for the evaluation of institutional strengthening achieved by the Project. This document was used by the Team to map the evaluation and check that it assessed the extent and diversity of Project outputs. The results of this process are found in **appendix 10**. The appendix confirms that the Project has satisfied most of the criteria that comprise the framework. The evaluation framework was a valuable assessment tool. This exercise highlights the importance of establishing an evaluation and monitoring plan early (preferably before the start) of any project.

A simple cost benefit exercise

The Team considered whether the processes developed as part of the Project had led to the increased use of staff and financial resources. This was difficult to assess because there were little baseline costing data, the Project had been implemented at the same time as there had been a rapidly rising workload for Bamras, and the hospital was simultaneously undergoing significant and potentially costly changes.

The Team considered the question from three perspectives.

1. HAS THE WORKLOAD OF STAFF CHANGED?

Table 7 lists the staff of some areas of Bamras and compares workloads in 1997 and 2000. In some instances the workload per staff member has increased and in other cases it has decreased. Overall, because the quality of care has increased, it is likely that the output and outcome per staff member have increased, meaning that the Royal Thai Government is getting better value for money and that the processes implemented by the Project have not led to increased resource use.

Table 7: Staff numbers and workload in 1997 and 2000

	1997			2000		
Department	**Staff**	**Work load**	**Ratio**	**Staff**	**Workload**	**Ratio**
ACU (Doctors and nurses)	5 (1 Dr, 2 registered nurses, 2 other nurses)	2701 patients	540 patients per staff member	6 (1 Dr, 3 registered nurses, 2 other nurses)	4193 patients	698 patients per staff member
Inpatient wards (Nurses)	3 registered, plus other technical nurses	30 bed ward	10 beds per registered nurse	7 registered, plus other technical nurses	30 bed ward	4.3 beds per registered nurse
Pharmacy (Note: data are from 1997 and 1999)	26 pharmacists and associated staff	197,212 prescriptions	7585 prescriptions per staff member	30 pharmacists and associated staff	217,056 prescriptions	7235 prescriptions per staff member
Counselling	5 counsellors	4781 counselling services	956 counselling services per staff member	Varying number of counsellors	8233 counselling services	Uncertain
Laboratory (TB tests)		~3000			8300	
Training - Courses held - Number trained		 4 225			 17 476	

2. WHAT IS THE OVERALL COST PER PATIENT?

The cost per patient can be calculated most simply by taking the total cost of running Bamras and dividing it by the number of patients treated. This approach has limitations but provides some indication of whether the improved processes that Bamras has instituted have made a major impact on the budget. In this instance, the Team used the total costs provided by the hospital, and for total patients simply added the number of inpatients and outpatients per year. Although this is not ideal, there is little other choice. The Team then took the total cost and adjusted it to 1999 baht using the cost of living index provided by the Bank of Thailand for 1996-1999.

The results of this are shown in Table 8. This indicates that the cost per patient has, at most, increased slightly, but not as much as might have been expected given the rise in the costs of imported medical equipment and pharmaceuticals and the fact that patients are receiving more and better services.

Table 8: Cost per patient (inpatient and outpatient combined) adjusted for cost of living increases, 1995–1999

Year	No of patients	Total hospital costs (baht) ('000s)	Adjusted to 1999 (baht) ('000s)	Cost per patient adjusted for cost of living to 1999 baht
1995	195,779	197,785	239,760	1224
1996	202,099	199,760	228,654	1131
1997	212,510	243,026	263,586	1240
1998	217,664	237,418	238,161	1094
1999	203,982	262,892	262,892	1289

3. CAN THE COSTS SAVED BY THE ACU BE ESTIMATED?

Judging by the number of procedures undertaken in the ACU, it is likely that more than 50 per cent of patients treated in the facility would have been admitted, if it did not exist. Although difficult to calculate because of the absence of specific costing data, the savings from the presence of the ACU were estimated. If it is assumed that, for the year 2000:

- of the patients attending the ACU who were not subsequently admitted, at least 50 per cent would have been admitted had the ACU not existed; and
- the length of stay was three days,

then the costs saved would be in the order of 15 million baht (A$750,000). It is also likely that the average length of stay would have been greater than three days. The mini-audits of case notes for inpatients with HIV/AIDS suggested an average of 10 days. However, as ACU patients are unlikely to be as ill as those actually admitted, it is appropriate to use more conservative estimates. Details of the costing, associated assumptions and a sensitivity analysis can be found in **appendix 11**. Ideally, this type of analysis would look at marginal costs and cost savings, but given the paucity of information on costs and the number of assumptions already involved, such conceptual rigour is not practical.

There is no doubt that the increased number of complex/severe (but still ambulatory) cases would have overloaded the hospital's capacity if it had continued admitting patients requiring investigations and/or treatment. An alternative way of considering the costs saved by the presence of the ACU is to consider the changes required in terms of beds and staff if these patients had been admitted. While it is not possible to make these calculations with any accuracy, it is likely that with the assumption of 50 per cent admissions, a six-day bed stay and 85 per cent occupancy, a standard 30-bed ward would have been required to accommodate the extra patients. Such a ward would be staffed by a doctor and seven trained nurses plus nurse assistants, compared with the one doctor and five nurses in the ACU. The outpatients department, or a unit dealing only with less complex cases would, of course, still have treated the 50 per cent of patients not admitted under the above assumptions.

Summary

The Project implemented at Bamras has a number of important elements, many of which affect the broader hospital. These elements, while not exclusively due to the Project, include:

- Treatment of those HIV/AIDS patients who are still ambulatory as 'out-patients' where possible, therefore reducing the demand on hospital beds. Prior to the Project, most HIV/AIDS patients requiring any treatment had to be admitted to hospital.
- Destigmatisation of HIV/AIDS for patients, relatives and carers and hospital staff.
- Development of nursing skills so that nurses can perform more complex (and rewarding) jobs. For example, the Project has trained triage nurses, nurse counsellors, infection control nurses and other specialist nurses.
- Improved service flow. The effects of this include earlier assessment of the severity of patients' illnesses when they enter the hospital, use of triage, and the early implementation of diagnostic tests e.g. X-rays, so that a doctor has more information on which to make an assessment of the patient and decide on appropriate treatment.
- A wider range of services being available to people living with HIV/AIDS (and other hospital patients) including counselling, nutrition advice, improved dispensing of pharmaceuticals, and accurate identification and treatment of ailments characteristic of HIV/AIDS, particularly tuberculosis.
- Increased attention to the role of families and other community support groups in the care and support of people living with HIV/AIDS.

In addition the Project has assisted the development of the Bamrasnaradura Hospital as a Clinical Reference Centre and a National and Regional Training Centre in HIV/AIDS care although the Team was concerned at the slow development of the Regional training role.

The total effects of the Project are complex and are greater than the initial objectives would suggest, however the outcomes of the Project include those that would be expected from the objectives.

Those components where the Project was considered to have fully achieved its objectives were:

- Strengthening the Ambulatory Care Unit at Bamras.
- Improving quality of counselling and access of patients and carers to counselling.
- Improving outpatient department patient flow.
- Limiting the inpatient load in the face of increasing numbers of HIV/AIDS patients by managing complex cases and procedures (particularly cryptococcal meningitis therapy: see appendix 5) in the ACU.
- Supporting the specific diagnosis of HIV-related opportunistic infections and the associated management rather than the previous syndromic treatment.
- Training of counsellors and nurses to a standard where they have now introduced their own programs.
- Developing and distributing IEC materials.

Those areas where the Project was partially successful were:

- The ownership of the Project by all staff, especially doctors.
- While inpatient nurse confidence and skills were improved, the role of nurse practitioner was not established.
- Establishing a multidisciplinary inpatient care model.
- The laboratory component.
- The patient satisfaction survey. This was implemented twice, but the methodology makes drawing conclusions difficult.
- The library is improved but not greatly accessed.

Those areas where the Project was not successful were:

- The establishment of links with academic institutions and other HIV/AIDS research and care institutions (eg Red Cross, HIVNAT).
- The integration with other hospital activities (WHO) and with NGOs (MSF).

One impact of the Project that is not immediately evident is that while Bamras treats and cares for patients already infected with HIV, the hospital's activities also contribute to prevention. Elements of this include confidential counselling and testing, which encourage members of vulnerable or high risk groups to establish their HIV status, and post-test counselling which provides advice on how to avoid becoming infected or how to prevent further spread of infection. The support from the hospital for families and carers of people living with HIV/AIDS can also limit further spread of the virus.

CHAPTER 4
PROJECT MANAGEMENT

Timeliness of implementation

There were delays in implementing some early Project activities. This was unfamiliar territory for Bamras and the ASC because neither had previously participated in a bilateral (government to government) technical co-operation project. Once both parties had bedded down the Project systems, the Project activities were implemented in a timely fashion.

The strategy for Project implementation was comparatively straightforward. The Project was primarily about upgrading the skills of Bamras Hospital staff through formal training, with extensive use of Australian Short Term Advisers (STAs) and on the job implementation.

One of the few concerns was that the frequency of STA visits at times severely stretched the capacity of Thai Project office staff to adequately service them. The Project design did not include funding for a translator, so translation of training materials often had to be done by these staff.

Standards of contract and performance by contractor

Detailed cost schedules were prepared to facilitate the contracting process for the Project, and an outputs contract which initially had 70 payment milestones was developed (at the end there were about 130). While this was seen as an ideal outputs contract at the time, it was time-consuming for the contractor and it emphasised the reports, rather than the satisfactory completion of the activities on which they reported. It must also be asked whether this number of payment milestones is excessive for a project of this size, and whether a mixed contract may not have been more sensible, considering the on-going nature of elements of the project such as the in-country support team.

One of the positive aspects of the contracting procedure was that the contractor was paid only for training which had been certified as being of a suitable standard by the Project Monitoring Committee. This increased the ownership and empowerment of the counterpart members.

The collapse of the Thai currency, the baht, in the Asian financial crisis and the resulting drop in cost for Thai-purchased inputs to the Project resulted in windfall profits to the Australian managing contractor. These were reinvested in the Project and in upgrading the qualifications of the Thailand Project office staff. For instance, the number of research fellowships was increased to six, from three, more study tours to Australia were funded, an architectural consultancy concerning approaches to infection control was supported and the production of a Bamras video with supporting materials was funded.

The parties who assessed the Project prior to the evaluation (i.e. mid-term review, Quality Assurance Group, AusAID Desk officer and the AusAID Project Support Unit in Bangkok) rated the contractor's overall performance high.

The Evaluation Team was impressed with the professionalism, intelligence, enthusiasm and commitment to the Project shown by the staff at the ASC in Sydney and Bangkok. The STAs were generally practitioners of the subjects they taught, which meant they were teaching current methods and that they were credible in the eyes of the Thai trainees. One or two may have been young in a culture that equates age with experience. However, the contribution of the "young" nutritionist to the preparation of excellent diet sheets for people living with HIV/AIDS on low incomes was mentioned several times.

There was dissatisfaction with some of the laboratory training in Australia as discussed in Chapter 3 (e.g. It was claimed that accommodation was sub-standard, that there was inadequate assessment of training needs and that management was culturally inappropriate). Some of the ASC trainers were said to have had out-of-date concepts of adult learning although most STAs had excellent understanding and articulation of these concepts. The inexperience of STAs who had not previously taught in a cross-cultural environment may have affected early training benefits, but these effects were minor and most of the trainers were of a high standard and adapted quickly.

Another minor concern was that in the last months of the Project there were still training courses to be presented e.g. on palliative care. The Project was to be completed in less than two months, which left little time to check the outcome of training. An examination of the plans and course materials for this module by the Team showed that it was satisfactory.

The STAs met by the Evaluation Team were all convinced that the Project had benefited the Bamrasnaradura Hospital and HIV/AIDS patients.

Overall, the contractor met and in many cases exceeded the requirements of the contract in terms of numbers trained and scholarships awarded. This was possible due to the reduction of costs mentioned above, careful stewardship of Project money and the focus on a quality outcome rather than on profit. It was helped by the fact that the Australian Team Leader based at Bamras was a very experienced health service administrator and by the willingness of the ASC to bring in additional expertise when necessary.

Strength of Royal Thai Government support and value of dialogue in Thailand

The policy environment in Thailand was favourable for the implementation of the Project. The main policy documents identify the importance of HIV/AIDS and the importance of developing strategies to reduce its spread and to care for those affected. However, there is ambivalence in that it is not clear how much emphasis should be placed on prevention and how much on care and treatment of those infected. Policy documents stress the minimisation of cost and promote "self help".

Staff numbers at Bamras were restricted in line with the cap on numbers in the civil service (although some temporary staff could be employed). Some of the funding mechanisms had recently been changed to reduce the funds the hospital could claim for its assistance to destitute people living with HIV/AIDS.

The Thai Government's inability to provide a wide spectrum of anti-retroviral (ARV) drugs could be claimed to reduce the benefits that come from the Project. However, the cost of antiretroviral drugs is still prohibitively expensive, and even if the availability of ARVs increases over the coming years (seven agents were expected to be locally available by mid-2002 at the time of the evaluation) there will be a need for much better understanding of the system-wide issues in delivering treatment for HIV infection and its associated opportunistic illnesses.

While the Project had strong support from senior Thai Government officials during its development, this was not as apparent at the time of the evaluation. As mentioned earlier, the key proponents who would have been most closely involved with the Project's implementation are no longer in positions where they can directly influence the Project. Some counterpart inputs have been slow in coming, or have not come at all, but this may reflect institutional inefficiencies in the Department of Technical and Economic Co-operation.

The AusAID staff at the Australian Embassy in Bangkok had relationships with the Department of Technical and Economic Co-operation and the Ministry of Public Health on the Project. They reported few problems and the Project Co-ordination Committee was able to focus on longer term planning. The Thai Government chief counterpart was, by default, the director of Bamras. Initially she was not totally conversant with the respective roles, responsibilities and benefits of the hospital and other parties involved in the Project. This led to some concerns about financial matters, although these were eventually resolved.

Staff participating in training had to do so in addition to their normal work, and there was no capacity to fill positions that became vacant. Management of areas by people who were not always trained managers was, at times, also a problem, as was the associated difficulty of not being able to employ suitably qualified professional people such as computer programmers. This was due to strict rules on who could be employed in a hospital: medical and nursing and 'traditional' administrative staff only. These rules needed to be changed to accommodate the growing demand for people with specialist skills, such as computing staff.

AusAID management and use of resources

Unusually for an AusAID project, the same AusAID Desk officer managed the Project from inception to completion. Similarly, the Project Support Unit officer, at the Australian Embassy in Bangkok, who was responsible for the Project was constant for the entire implementation phase. Both officers had an excellent understanding of the Project.

The AusAID Desk officer and the embassy consistently used in-house expertise as required. This included the AusAID health advisers, contract services and the Performance Information & Assessment Section. The AusAID Desk officer used a broad consultative approach.

Project monitoring and communications

The Australian Team Leader, the Project Director and AusAID staff in Canberra and Bangkok maintained good working relationships among themselves and with counterparts. Most issues and problems were solved during the Project, however the absence of an on-going communications strategy probably meant that the views of stakeholders, particularly those in the community, could have been better recognised and incorporated into activities and plans.

The monitoring framework, initially developed for the Project some time after the mid-term review, proved to be extremely resource intensive for the hospital and for the ASC, with extensive surveys in multiple fields required six-monthly. It was halted after the second round and revised.

The Project included a range of activities which assisted the monitoring process. Not the least of these were the voluminous number of Short Term Adviser reports, which were directly identified with specific logframe outputs/activities. These often included an assessment of the training or other activities undertaken by the STA. The quality of these was variable.

The annual plans and other planning and reporting documents also made a clear and positive contribution, although the need for such extensive reporting must be questioned in terms of the opportunity costs.

The evaluation strategy developed by the Project was partly used in this evaluation.

CHAPTER 5
SUSTAINABILITY

Sustainability is a key to the success of development co-operation activities. In reviewing the sustainability of the Project's benefits, the Team considered: the policies of the Royal Thai Government; the Project's design; training; maintenance of physical facilities and equipment; financial sustainability; and links with other projects.

Policies of the Royal Thai Government

The Royal Thai Government's (RTG) *National Plan for Prevention and Alleviation of HIV/AIDS, 1997–2001*, approved by the National AIDS Committee, sets the policy basis for HIV/AIDS response in Thailand. As discussed briefly in Chapter 1, it spells out eight specific components which set the policy framework for responding to the epidemic throughout the country. In the design and implementation of the Project, the commitment and development of appropriate policies by the RTG was essential if the Project model was to be sustainable and transferable within Thailand. The Team analysed the relationship between the RTG's policy setting and the Project, recognising that the initial Project was developed in the context of the former national policy, but implemented under the current policy. The relationship between national policy and the Project is mapped in appendix 12. In brief, the Project objectives were in keeping with the national policy direction, which should encourage sustainability of its outcomes.

Participation of the hospital in shaping national policy could have strengthened sustainability and transferability of the Project model throughout the country. However, it is not clear that Bamras has any such involvement. Bamras and only three other hospitals come under the direction of the CDC and are therefore separated administratively from most other hospitals. While Bamras is well supported as the premier HIV/AIDS hospital, there are no direct mechanisms for the benefits and lessons from the Project to be fed into government policy-making for HIV/AIDS nor to other health care institutions.

The Team acknowledges the important role of the National AIDS Committee and the National AIDS Program. The Team notes staff and patient satisfaction with the model and systems established under the Project and recommends that the National AIDS Committee reviews current HIV/AIDS policies and incorporates appropriate elements of best practice that have been established at Bamras.

For example, the best practice elements of the Project could be incorporated into the *National Guidelines for the Clinical Management of HIV Infection in Children and Adults*.

The Team did note, however, that the AIDS Division of the Ministry of Public Health and Bamras had produced the *Manual of Nursing Care for HIV/AIDS*.

Project design

The Project was to assist the Ministry of Public Health in planning and preparing to respond in an efficient and effective manner to the needs of the increasing number of Thais suffering from HIV/AIDS. The RTG was committed to providing infrastructure costs, consumable patient care equipment and health care worker salaries. Despite some initial misunderstanding concerning its contribution, the RTG mostly met these obligations.

More consultation at the start of the project with key players, particularly doctors at all levels of the hospital, and at national and provincial level may have improved outcomes. More extensive consultations would have encouraged wider ownership of the Project and broader dissemination of information on its products and benefits.

The Project provided the hospital management with suggestions for a strategy to ensure sustainability and to support Bamras to strengthen its role as the National and Regional Training Centre in HIV/AIDS. The key tasks included developing a marketing plan, business plan, training materials, financial systems, monitoring and evaluation systems and plans concerning core hospital business. The brief also provided some guidance on the process to be undertaken by setting out the framework for the hospital management to follow through the set tasks. Apart from this document, which appears to contain the key elements but was not developed in conjunction with the RTG, there was no specific sustainability strategy set out in the Project design[15].

Overall, as the Project design did not require a significant increase in staff or other resources, and as most of the systems and practices developed during the Project have become incorporated into standard hospital operations, at this level at least the Project benefits appear sustainable. (See also appendix 13).

Training

The Project training contributed to the positive attitude of Bamras staff to patients and the confidence among nurse practitioners, counsellors, nutrition counsellors, pharmacy, laboratory and library staff, doctors and infection control nurses. Many of the outcomes of training have become part of the standard practice of the hospital and therefore will be sustained. The capacity to train new staff enhances sustainability at the hospital level.

Bamras has been designated the WHO Collaborating Centre for Training and Research on HIV/AIDS Clinical Management and Support. It was noted that while there should have been synergies between this role and the development of Bamras' national and regional training role, there was little collaboration between the Project and the WHO Collaborating Centre, although staff trained by the Project were indirectly involved in the WHO regional training courses. The staff trained in the various support services for counselling and care appeared to have minimal input into the regional training programs organised by WHO for South-East Asia. There were missed opportunities in the failure to develop closer links.

15 Most of these activities were incorporated into the extension of the Project.

Separate from the WHO involvement, the development of the Training Centre (including the follow-up support mentioned earlier), and the associated commitment to continuing education, are major ways in which the benefits of the Project will be sustained. This could be enhanced if Bamras had a role as a teaching hospital or at least had formal links with teaching hospitals so that there could be on-the-job sharing of best practice with doctors, medical students, nurses and other health professionals throughout the country. However, there are impediments to this under current arrangements in Thailand.

Maintenance of physical facilities and equipment

The equipment provided as part of the Project will contribute to the hospital infrastructure. The Team anticipated that Bamras would adequately maintain physical infrastructure and equipment in the post-Project phase. There were no infrastructure or maintenance problems noticeable to the Team.

Financial sustainability

As already noted, the activities supported by the Project did not incur a large increase in the hospital's recurrent budget, and therefore financial sustainability was an issue of limited concern. The staff trained were long-term staff within an existing institutional framework and therefore were not an additional burden to the recurrent budget following the completion of the Project. At the time of the evaluation there was no cost recovery by the hospital for training courses held for Thai Government institutions, which may have increased financial pressure on the Training Centre.

An area of concern is the upkeep of the Candle Light for Life Club. The Team hopes the club will continue to be part of the patient support mechanism and that resources can be found to maintain and expand its functions to include more people living with HIV/AIDS and their families and carers.

Links with other projects and organisations

From the records supplied to the Team on foreign support being co-ordinated by the Department of Technical and Economic Co-operation, there was 27 HIV/AIDS related projects implemented between 1996 and 1999 in Thailand. **Appendix 14** provides a summary of these and two earlier activities. Of the 27 projects, AusAID funded four. The rest were supported by other bilateral and multilateral agencies. NGO support, such as that provided by MSF, was not reflected in the report provided by the department. Of the 27 projects, 21 were specifically related to HIV/AIDS and the Ministry of Public Health sponsored 12 of these. The Team assumes that the projects were in keeping with the national strategy.

Although the Project was in line with the national strategy, it had no links with the other AusAID projects and limited links with other bilateral and multilateral agency projects which

had similar objectives e.g. other HIV/AIDS research and care institutions (Red Cross, HIVNAT). The disadvantages of this were discussed in Chapter 3. In the overall implementation of the Project, there were only informal links between the MSF project and the WHO Collaborating Centre for training in HIV/AIDS clinical care and support.

Overall, the Team concluded that the Project benefits at Bamras are likely to be sustainable. However, the spread of benefits more broadly across Thailand, including to other hospitals (particularly teaching hospitals) caring for people living with HIV/AIDS, and its influence on government policy, relies very much on the success of the National and Regional Training Centre.

CHAPTER 6
TRANSFERABILITY

If the Project is to be used as a model and transferred elsewhere in Thailand, it is important that elements of the model relating to human resource development are incorporated into pre-service and in-service training programs for those who will be dealing with people affected by HIV/AIDS. Thai training materials have been developed, and these materials would need to be replicated and a policy directive would be required to provide a clear direction as to how other hospitals can access, copy or modify the training based on the best practice developed at Bamras. The role of Bamras as the National Training Centre for HIV/AIDS treatment and care would be particularly important.

There was little formal collaboration between the Project and multilateral agencies. If the Project is expected to deliver standards of practice which can be transferred to other countries, it is important that there is communication with these bilateral and multilateral agencies. In keeping with information transparency, it would be valuable to publish the Project outcomes in UNAIDS acknowledged standards of best practice publications.

Care and support are acknowledged as important regional issues. It will be important to make the findings and outcomes of the Project widely known if its lessons are to be disseminated more widely across the international region.

Prerequisites for transfer of the model

In discussions with many Thai experts, the Team concluded that the following were essential if the model used in the Project was to be transferred to another institution in Thailand or in the international region:

- Articulation with national policy. For instance, a project to transfer the model could change a particular hospital but without articulation with national policy it is unlikely that other hospitals would benefit.
- A sufficiently high number of HIV/AIDS cases in the community and a sufficient number of cases attending the proposed centre. If patients are attending elsewhere, then that place may be a better alternative. If the patients are not already attending the proposed institution then it is unlikely that the staff will have the incentive for further training or sufficient practice to maintain skills. Staff attitudes may be required to change more than those of staff in hospitals/centres already dealing with large numbers of HIV/AIDS patients.
- Staff need good basic skills to benefit from programs aimed at further developing their skills. If basic skills are not present then they will first have to be developed and sustained.
- Commitment by the central financial and policy institutions and the implementing organisation.
- A strategy involving all stakeholders, recognising that these will come from various levels within the organisation.

- The implementing organisation must have sufficiently well developed infrastructure to enable flexible changes in health services. This may include, for example, services such as X-rays, fast and accurate laboratory services and infection control procedures, or hospital organisational capacity such as medical advisory committees.

Where the conditions are not suitable to implement the total model developed at Bamras (eg. including the ambulatory care unit), the Project identified activities which can be introduced in most settings to improve treatment and care for people living with HIV/AIDS. For instance, the upgrading of counselling, infection control and training for destigmatisation can make important contributions in institutions and the community.

Location specific issues

Four other locations, one in Thailand and three in neighbouring countries, were visited and assessed for the appropriateness of the full ambulatory care model implemented at Bamras.

Khon Kaen

The Evaluation Team's field trip to Khon Kaen in north-east Thailand (**appendix 15**) focused on the potential to transfer the ambulatory model of care and/or to establish a HIV/AIDS training focus for Thailand in the CDC hospital in Khon Kaen.

Meetings were held with staff of the North-East Region Infectious Hospital, the director and staff of CDC region 6 and a HIV/AIDS specialist physician from the University of Khon Kaen Hospital.

The people met at these institutions had little knowledge of the Bamras model of HIV/AIDS care or the Project. Although the concept was appealing there were a number of limitations and factors to consider. These included the development of good links and information sharing, the need for substantial staff capacity building, and recognition of the Thai working conditions, especially of doctors, as well as Thai approaches to planning and decision making. There is expertise and some degree of support from the CDC and the academic HIV/AIDS unit at the University of Khon Kaen Hospital.

Middle management of the North-East Region Hospital supported the idea of an ambulatory care model at the hospital. The North-East Region Hospital has a moderate HIV/AIDS patient load of about 300 adult and paediatric patients a year. Substantial upgrading of the skills and approaches in laboratory and clinical management of opportunistic infections is a prerequisite to replicating the Bamras model, and it is likely that it would be possible to replicate only some elements of the model such as destigmatisation training and counselling.

An assessment of high-level support and a detailed series of discussions with the key Thai healthcare providers and potential collaborating organisations are needed to further delineate needs, policy settings and optimal implementation models. The appropriateness and practicality of training placements at Bamras to better use the expertise should be pursued.

Considerable effort and major resources would be needed if Khon Kaen was to become a Regional Training Centre or if an ACU was to be established in a hospital there.

Vietnam

In Vietnam (**appendix 16**) there is an increasing need for treatment and care for people living with HIV/AIDS as the number of people diagnosed with the disease increases each year. There is a degree of political interest and commitment to the need for better models of care, however relatively little is known of the Bamras model.

Clinical and political leaders would need to be identified and considerably more work would be needed in order to undertake any transfer project. One issue is that patients attend the hospital relevant to their presenting symptom. This means that patients with tuberculosis as a presenting symptom for HIV/AIDS would attend the chest hospital, while a patient with a skin rash as their presenting symptom would attend the dermato-venerealogical hospital. This has particular implications for the prospect of upgrading skills e.g. HIV/AIDS-relevant laboratory skills. It also makes it difficult to build up a critical mass of people with HIV/AIDS-related skills. However, there is probably a need for infection control, counselling skills and general information destigmatisation courses at all hospitals. The latter is a little unclear because while there is said not to be a problem regarding discrimination, the attitudes of some people towards commercial sex workers and intravenous drug users, for example, suggests that discrimination may be more widespread than claimed.

There is a desire to ensure that care of HIV/AIDS patients occurs mainly at the community level. However, this will require better vertical integration of hospitals so that there is a path for moving HIV/AIDS patients to hospitals as their conditions worsens with the progression of the disease and related opportunistic infections.

Laos

In Laos (**appendix 17**) there is no systematic data collection so the HIV/AIDS situation is not really known because many people living with HIV/AIDS tend to be unaware of their infection. Most work has concentrated on prevention, as in many other countries. Most care is at home and any treatment and care intervention would need to work at the community level. Any introduction would require significant modification of the Project model and capacity building of staff in all relevant areas. The most appropriate location would need further investigation as the one visited by Team members saw few patients with HIV/AIDS. There is significant need for even basic skills, including infection control.

Cambodia

In Cambodia (**appendix 18**) more than 165,000 people were HIV positive in 1999. This was more than 3 per cent of the adult population aged 15 to 49 years. Estimates suggested that 250,000 people were infected by 2000. Most efforts so far have concentrated on prevention, but there is increasing recognition that treatment and care is essential. The central health authority has talented and knowledgeable staff but relatively few other resources.

The very low technical and human resource capacity will be a barrier to the introduction of new procedures. Patients are currently treated as inpatients and outpatients. Treatment is theoretically free, however, most doctors and nurses are very poorly paid. At times, therefore, there is unofficial charging of patients, even for 'free' treatments e.g. anti-tuberculosis medication. There is a need for better treatment of opportunistic infections, and the likelihood of anti-retroviral drugs becoming available in local markets will almost certainly lead to drug resistance if the drugs are taken without proper supervision, such as in a stop/start manner, or if the drugs are taken singly, rather than in combination. Another area of need is basic infection control. Further intervention projects would be welcome and warranted in Cambodia. However, they will need to be well linked to the community and will need to focus on increasing the capacity of staff.

CHAPTER 7
CONCLUSIONS AND LESSONS LEARNED

Conclusions

The goals of the Thailand–Australia HIV/AIDS Ambulatory Care Project at its start were to:

- Establish a fully integrated ambulatory care model at the Bamrasnaradura Hospital for the delivery of optimal clinical care to patients with HIV/AIDS and the support of families and carers through the strengthening of health care worker training, organisational support and infrastructure development.
- Assist in the development of the Bamrasnaradura Hospital as a Clinical Reference Centre and as a National and Regional Training Centre in HIV/AIDS care.

The collaborative Project between the Bamras Hospital and the Albion Street Centre had been specifically sought by Thailand's Ministry of Public Health. The Project activities enhanced the on-going improvements in the hospital.

The first of the Project goals has clearly been met. The second and minor goal had been partly met at the time of the evaluation.

All four project components were mostly achieved, i.e.

- To develop the clinical and counselling skills of health care workers at Bamrasnaradura Hospital to care for patients with HIV/AIDS and to provide psychosocial support to family and carers.
- To develop the organisational and educational capacity of Bamrasnaradura Hospital to provide culturally appropriate health information for target groups and health literature to support the on-going education of health care workers.
- To develop the organisational capacity required to devise and implement an ambulatory care model that is transferable locally, nationally and in the international region.
- To efficiently and effectively manage and implement the Project to achieve the defined implementation targets and Project objectives.

While the Project assisted with the development of an efficient and effective ambulatory care model for treatment and care of people living with HIV/AIDS that was suitable for Bamras, the essential criteria for successfully transferring the model to other health facilities are unlikely to be met elsewhere in Thailand or the region, at present. Where this is the case, activities such as upgrading counselling, infection control and destigmatisation training can lead to improvements in the treatment and care of people living with HIV/AIDS.

The Team concluded that the Project has been well managed from the perspective of AusAID, the Albion Street Centre and Bamras and has led to good outcomes for the hospital, its patients and their carers. The interventions have not used excessive resources and the Bamras staff are able to deliver more to the patients for about the same cost per patient.

The main improvements assisted by the Project have been embedded in hospital processes and are expected to be sustainable. However, it is less likely that the best practice elements of the Project will become accepted as national HIV/AIDS policy and practice.

The Project has improved the Training Centre and provided a significant resource for Thailand. Subsequent assistance is expected to further develop the Training Centre's capacity and value as a national and regional resource.

Lessons learned

The Team defined 'lessons' as guidance learned from the Project, but with broader applications. The lessons which can stand alone, separately from this Project, are shown in bold. Examples from the Project are used to explain some of the lessons.

1. *Project designs should include analysis of partner government policy and how the proposed project will enhance policy outcomes to ensure sustainability and transferability.*

Partner government policy is an important determinant of sustainability and transferability. There needs to be a clear route by which project findings can influence government policy, or at least be brought to the attention of those who set government policy. In the Project, this includes improved nursing/medical practices and redefined roles for nursing staff being incorporated into national training and disseminated across the health system.

2. *Every project should include a clearly articulated inception phase* that should (if not available from the project design) include:
   - Collection of baseline data.
   - Development of a monitoring framework.
   - Plans for establishing data concerning gender.
   - Plans for establishing data concerning poverty.
   - Plans to ensure appropriate data are collected for evaluation, ensuring that indicators for evaluation are appropriate and easily measured.
   - Development of a management strategy.
   - Development of a communication strategy.
   - Development of a sustainability strategy.
   - Testing of assumptions that may help or hinder the project.
   - Development of a management plan.

While there are a whole range of plans (management, risk, sustainability, gender, monitoring) that are meant to be included in the project design, some of these are not easily planned at the design stage. An inception phase should allow for these plans to be modified to fit the conditions. Collection of baseline data is important including, for example, assessing the capacities of nursing and medical staff and identifying the context in which the project will operate. The inception phase can also be used to ensure that the day-to-day participants, as distinct from those more senior in the hierarchy, know exactly what is going on, particularly in terms of the agreements and arrangements made as part of the project. This evaluation would have been enhanced by the availability of better data, especially data from the Project's inception.

During the inception phase there is need for the development of a clear and articulated management plan between the project and major stakeholders concerning the conduct and processes of the project. This should be sufficient to deal with changes in personnel, minor changes in direction and account for the inevitable changes that occur during the life of any project. Communication about contractual details regarding the commitments of all parties and orientation briefings of senior and middle level officials should occur. Where appropriate, this should include specific detail about the amount of money available under joint project control, the responsibilities of all parties concerning monetary contributions and where the accountability of spending such funds lies.

Such a management plan could also provide a mechanism by which to deal with, for example, changing standards of healthcare such as the provision or not of anti-retroviral therapy in HIV/AIDS projects. It could also analyse local administrative and management structures (such as hospital management structures) to make best use of opportunities regarding project outcomes and ensure that such analysis is reviewed throughout the life of the project. For instance, in this Project there was a failure to engage medical staff (doctors) until late, despite the fact that medical staff control almost all aspects of the hospital. This became the single most important change that the Project team said they would make and was supported by comments from Ministry of Public Health staff, senior hospital officials, senior and junior doctors and people outside Bamras. A management plan developed during the inception phase would almost certainly have identified the problem earlier.

3. *There are essential criteria for successfully implementing similar HIV/AIDS projects more widely in Thailand or elsewhere.*

These were identified by Thai people, and included:

- Articulation with policy is necessary if transfer of the model is to occur. For instance, a project can change a hospital, but without articulation with policy it is unlikely that other hospitals will benefit from the new project.
- A sufficiently high number of HIV/AIDS cases is necessary to develop interest and maintain expertise in the country.
- A sufficient number of people with HIV/AIDS related illnesses must present at the proposed HIV/AIDS centre. If the patients are not already attending the proposed institution, it is unlikely the staff have either the baseline expertise or the incentive for further training. Furthermore, staff attitudes may require more change than needed in hospitals/centres already dealing with large numbers of patients.
- Staff need good basic skills to benefit from the skill development required.
- Commitment is required from central institutions and the implementing organisation.
- A strategy is required to involve all those with a vested interest, recognising that such people will come from various levels within and outside the organisation.
- The implementing organisation must have sufficient infrastructure to enable changes to occur. This may include services such as X-rays, fast and accurate laboratory services, infection control procedures or hospital organisational requirements such as medical advisory committees.

4. *Translators and interpreters are an important part of any project in a non-English speaking country and sufficient resources should be included in the project to ensure high quality translation/interpretation, especially for technical matters.*

The English language capacity of counterpart staff, at all levels, must be assessed and there must be an adequate capacity to translate all relevant project materials, including the project design, into the national/local language or, where necessary, from the national/local language into English. It is easy to underestimate the size of this task. Similarly, there may be a large need for interpreters if Australian experts do not know the local language. These interpreters/translators need to have an appropriate technical vocabulary.

5. *The inter-relationship of tuberculosis and HIV/AIDS is so important that any future project planning in either area needs to consider issues concerning the other.*

Without such an approach the result of technical support may be to make either problem worse e.g. inadequate treatment of tuberculosis in an HIV/AIDS project will facilitate drug resistance, while inadequate diagnostic facilities in HIV/AIDS treatment may lead to missed diagnoses for tuberculosis.

6. *Appropriate stakeholders must be engaged and plans established to communicate and collaborate with bilateral and multilateral agencies and NGOs in the design, implementation and review of any project to transfer the Project model, or components of it, in a country or the region.*

This is essential if the maximum support of the various agencies is to be received by the relevant government, as well as enhancing the prospects for sustainability and transferability.

7. *Projects using sub-contractors must ensure that they adhere to the same basic practices and standards set out for the rest of the project.*

Where sub-contracting occurs, it is essential that processes are in place to ensure appropriate levels of consulting and that the sub-contract is appropriately managed and the output evaluated. There needs to be clear terms of reference, detailed plans for visits and methods to be used, systems for ensuring quality, and evaluation planned prior to implementation and articulated in the contract. This should also include ensuring that (STA) reports are of an adequate standard. This lesson is particularly pertinent if the contractor is relatively inexperienced in this type of contract.

8. *The payment milestones should be limited in number and clustered around appropriate outputs and outcomes, ensuring that the major focus is management of the project and programs rather than the contract.*

Some contracts require many payment milestones which can mean reports are needed prior to payment. In this Project contractors and AusAID staff considered there were too many. The best solution would be a mixture of core funding to allow on-going project management, such as for the project team in the Bamras hospital, with, say, one-third retained for payment milestones. These milestones should be designed to include a mixture of outputs and outcomes.

9. *Project outputs need continued monitoring from within the project to determine whether they are contributing to planned outcomes.*

The continued monitoring of outcomes can lead to project modifications. For instance, the production of IEC materials was admirable in this Project, however the availability of IEC materials could have been improved and made more convenient for collection by patients and families. Monitoring by people working in the Project could have picked up this problem and rectified it. This should already be standard practice for any project.

APPENDIX 1
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APPENDIX 2
SHORT TERMS OF REFERENCE

EVALUATION OF THE THAILAND: HIV/AIDS AMBULATORY CARE PROJECT

1. Introduction

The Thailand HIV/AIDS Ambulatory Care Project is being implemented by the Albion Street Centre[16] at the Bamrasnaradura Infectious Diseases Hospital (Bamras) in Bangkok. AusAID proposes to implement an end-of-project evaluation of the Project.

2. Background

The Ambulatory Care Project is considered to be successful as it is reported[17] to have increased and improved the range and efficiency of services provided by Bamras to HIV/AIDS patients and their carers without increasing resource (staff and financial) requirements at the hospital. The project is attracting extensive interest regionally and from major aid donors including the World Bank and UNAIDS.

The goal of the Project is:

To demonstrate the viability of the ambulatory care model for Thailand and the international region and to improve the efficiency, effectiveness and policy appropriateness of the treatment of patients with HIV/AIDS at Bamras.

The objectives of the Project are to:

1. Establish a fully integrated ambulatory care model at the Bamrasnaradura Hospital for the delivery of optimal clinical care to patients with HIV/AIDS and to support their carers and families.
2. Assist in the development of the Bamrasnaradura Hospital as a Clinical Reference Centre and as a National and Regional Training Centre in HIV/AIDS care for Thailand[18].

PROJECT COMPONENTS

The goal and primary objectives are expected to be achieved through the implementation of four project components.

Component one: ***Human resource development***

Objective: To develop the clinical and counselling skills of health care workers at Bamrasnaradura Hospital to care for patients with HIV/AIDS and in providing psychosocial support to families and carers.

16 The ASC is a facility of the Division of Medicine, Prince of Wales Hospital, Sydney.

17 See, for example, assessments of the AusAID Quality Assurance Group.

18 The first objective is the more important for Australian involvement in terms of funds and time allocation.

Component two: ***Health education and information services***

Objective: To develop the organisational and educational capacity at Bamrasnaradura Hospital to provide culturally appropriate health information for target groups and health literature to support the on-going education of health care workers.

Component three: ***Administrative and organisational structure and development***

Objective: To develop the organisational capacity to devise and implement an ambulatory care model that is transferable locally, nationally and in the international region.

Component four: ***Project management***

Objective: To efficiently and effectively manage and implement the Project for the achievement of the defined implementation targets and Project objectives.

3. Objectives of the evaluation

The objectives of the evaluation are:

To assess the effectiveness, efficiency and impact of the Thailand HIV/AIDS Ambulatory Care Project, including the:

- Appropriateness of the objectives and design.
- Extent to which the activity has achieved its stated goals and objectives.
- Professionalism of management.
- Sustainability of benefits.
- Adaptability and replicability of the ambulatory care model.

Lessons learned will be one of the key outputs.

4. Scope of the evaluation

The scope of the evaluation will take account of AusAID's Activity Quality Standards, as well as the evaluation methods developed by the Project.

The evaluation will examine:

BRIEFLY – The appropriateness of the objectives and the Project design in the economic and social development context of Thailand. Questions to be answered in the evaluation could include:

- Were the objectives clear, realistic, appropriate and in a priority sector?
- What is the profile of the client group for the Bamras hospital? Does it service the urban poor?
- Were the Royal Thai Government (RTG) and other stakeholders actively involved in a participatory identification and design of the project?

- Was the design process thorough, using a log frame approach and including a comprehensive appraisal? Were alternative approaches considered in detail?
- Was the design of a high standard, meeting all AusAID requirements? Did it include a risk and a sustainability analysis and an explicit link to poverty reduction?

BRIEFLY – The professionalism of management of the project. Questions could include:

- Was the project implemented in a timely, efficient and responsive manner? Did the contractor's implementation management procedures and reporting meet AusAID's needs? Was the contractor reliable and professional? Were the activities and outputs achieved within budget?
- Was the contracting strategy appropriate to the requirements of the project?
- Was the partner RTG's policy environment favourable for project implementation? Was there a clear understanding of respective responsibilities and contributions, and was there strong support and collaboration between the project and RTG at all levels?
- Did the institutional and organisational arrangements work well and were RTG inputs maintained at levels agreed in the Project design document and Memorandum of Understanding?
- Did AusAID desk and embassy staff support the project in a professional manner, using sound risk management and making appropriate use of the expertise of other AusAID staff?
- Was there a suitable monitoring framework?
- Were AusAID staff familiar with the project and was there adequate and constructive communication between AusAID staff, the Australian team leader and the RTG team leader?
- Was the system of project co-ordination committees and/or other supervisory structures efficient and effective in identifying and resolving issues of concern to major stakeholders?

SUBSTANTIVELY – The extent to which the project has achieved its goal and objectives. Issues to be examined could include:

- Whether the project has established a fully integrated ambulatory care model at the Bamrasnaradura Hospital for the delivery of optimal care to patients with HIV/AIDS and to support their carers and families. This would require an assessment of achievement of expected outcomes, such as:
  - The provision by Bamras of fully integrated patient care.
  - Improved clinical practice in the hospital resulting in improved health outcomes.
  - Improved support of patients, families and carers, including through health information.
  - Improved hospital systems and organisational capacity.
  - Improved health care worker training.
  - Resource efficient implementation of the ambulatory care model.
- As required, the achievement of project outputs in components one to three, if not adequately covered above.

- The standard of the outcomes and outputs achieved and the extent of benefits to the target population. If possible, a cost-benefit analysis should be undertaken.

BRIEFLY – The development of the Bamrasnaradura Hospital as a Clinical Reference Centre and a National and Regional Training Centre in HIV/AIDS care for Thailand. While this was a minor part of the Project, appropriate outcomes will need to be identified and achievement assessed.

SUBSTANTIVELY – The sustainability of outcomes of the Project. Questions could include:

- Was there a sustainability strategy that was monitored and adjusted as required during the Project's implementation?
- Did the Project introduce mechanisms to maintain the improved knowledge, skills, systems and resources introduced through the Project?
  - Are training programs and schedules in place to maintain adequate and appropriate technical skills?
  - Does the institution have sufficient knowledge and skills (either internally or on contract) to maintain the organisational structure, systems and hardware which sustain its increased institutional capacity?
  - Does the RTG have high level political support for, and "ownership" of, the Project outcomes and outputs? Will it provide adequate recurrent budget funding after the Project is completed?
  - What are the benefits to Bamras of networking with other institutions?
  - Has the Project included training for RTG/Bamras officials and staff in how to manage activities with resources available after the Project finishes?
  - Is the RTG's economic and social policy context favourable for continuation of benefits after completion of the Project?

SUBSTANTIVELY – The capacity for the ambulatory care model to be replicated in Thailand, South-East Asia and further afield. Questions could include:

- How applicable is the ambulatory care model for the current state of the HIV/AIDS epidemic in Thailand and adjacent countries, and will it be relevant in the future? How important is the extent of urbanisation?
- What are the key social, political, developmental, institutional, financial and economic conditions which facilitated the successful (or otherwise) implementation of the Project? Are these conditions available elsewhere in Thailand and South-East Asia?
- Which components of the model are most likely to require modification if the model is to be replicated in other locations in Thailand and/or in countries adjacent to Thailand? Which components are critical to the success of the model?
- What are likely to be the major constraints to implementing the model elsewhere in Thailand and/or in other countries in the region? What are the major differences in the health systems among these countries which could influence the success or failure of implementation of the model?

APPENDIX 3
PEOPLE/GROUPS MET BY THE EVALUATION TEAM[19]

Dr Somsong Rugpoa, Director General, Department of Communicable Disease Control, MOPH.
Dr Chana Tanchanpongs, Deputy Director General, CDC.
Dr Anupong Chitwarakorn, Director, AIDS Division, CDC.
Dr Achara Chaovavanich, Director of Bamrasnaradura Hospital.
Dr Somsit Tansuphaswadikul, Consultant Physician and Head of Ambulatory Care Unit.
Dr Pikul Moolasart, Chief, Academic Section and responsible for Regional Training Centre, Bamrasnaradura Hospital.

Department of Technical and Economic Co-operation
Mr Apinan Patiyanon, Director, Bureau of External Cooperation.
Mrs Supranee Liamchareon, Chief, Monitoring & Evaluation Sub-Division, Planning Division.
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Payap Ratnarathon, Counselling Unit
Mrs Sirirat Likanonsakul, Immunology
Mr Boonchuay Eampokalap, Microbiology
Mrs Monthaswat Ratanasrithong, Pathology
Nrs Oratai Somnarin, Infection Control
Dr Vason Pinyowiwat
Dr Narongsak
Dr Nittaya
Dr Sarunya
Dr Wisit Prasithsirikul
Dr Boonchai
Mrs Pa-earn Tanompongchart, Director of Nursing section
Aree Ramgomut, Nutrition counsellor
Piumsook Phrommayon, Chief, Nurse Counsellor
Lamom Bornpuk, Nurse Practitioner , ACU
Jiumjai Soithong, Nurse practitioner , ACU
Head nurse, TB ward
Pharmacist
Chulikorn Puripatanayan, Finance
Nurse at Antenatal Clinic
Members of Candle Light for Life Club
Patients, their families and carers

19 The Evaluation Team apologises for misspellings, omissions, and incomplete names and titles.

MSF
Paul Cawthorne
Dr David Wilson, Medical Co-ordinator

UNICEF
Prue Borthwick, IEC Officer
Thazin O'o, PMTC, Focal Point

UNAIDS
Dr Wiwat Rojanapithayakorn, Team Leader, Asia-Pacific Intercountry Team

WHO
Mrs Laksami Suebsaeng, National Professional Officer (AIDS)

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Dr Sunchai Chasombat, Deputy Director Medicine, Khon Kaen CDC Regional Hospital
Mrs Charweewan Sukkasem, Director of Nursing, NE Regional Hospital
Dr Tipsukol, General Practice Medical Doctor, NE Regional Hospital
Tassaya, Chief Counsellor, Khon Kaen University Hospital
Dr Ploenchan Chetchotisakd, Physician in Charge, Clinical Research, Srinakarin Hospital, Principal Investigator, HIVNAT

Laos
Dr Chansy Phimphachanh, Director, National Committee for the Control of AIDS (NCCA) Bureau of Lao PDR
Dr Kongseo Phomdouangsy, NCCA
Dr Mayboun Heuangvongsy, Deputy Director Mahosot Hospital
Dr Ounkham Souksavanh, Program Manager, Care International
Miss Wimala, Director of Nursing
Dr Wilaytan, Administration
Jens Johan Laugen, Norwegian Church Aid
Ted Nierres, Australian Red Cross

Cambodia
Dr Mean Chhi Vun, Deputy Director, Ministry of Health, Director NCHADS
Dr Nong Kanara, Chief, AIDS Care Unit
Dr David Wilkinson, Consultant
Pok Panhavichetr, Executive Director, KHANA
KHANA representatives – KHANA is a non-government organisation concerned with home based care

Major General Veng Bun Lay, Deputy General Director, Dept of Logistic-Finance, Ministry of National Defence
Christine Hanson, AusAID, Cambodia
Henk Bekedam, WHO, Cambodia
Sok Phan, HIV/AIDS Department Manager, Hope Worldwide
Dr Graham Gumley, Hope Worldwide

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Australian Embassy in Thailand
Steve Walker, First Secretary (DA)
Tony Bates, Project Officer

The Albion Street Centre (ASC), Sydney
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AusAID

Rick Nicholls, Acting Director, Performance Information & Assessment Section
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Lincoln Young, Quality Assurance Group, Performance Information & Assessment Section

APPENDIX 4
VISITORS TO THE BAMRASNARADURA HOSPITAL IN 2000

Date Start	Finish	Visitors	Area of interest	Country
25-Jan-00	—	Dr R.S. Paranjpe, Dr N.M. Samuel, Dr Sekhar Chakrararty, UNICEF	Laboratory services	International
26-Jan-00	—	Medical students, Chulalongkorn University	Communicable diseases	Thailand
26-Jan-00	—	Dr Stark, US Armed Forces Research Institute of Medical Sciences	HIV ward	USA
31-Jan-00	4-Feb-00	Medical students, Army Medical College	Service management, prevention and care of communicable diseases	Thailand
31-Jan-00	4-Feb-00	Medical students, Army Medical College	Infectious diseases	Thailand
2-Feb-00	—	Administrator, Partners in Population and Development, Bangladesh	AIDS prevention and transmission control	Bangladesh
14-Feb-00	15-Mar-00	Staff from Bristol Myer Squibb (Thailand) Co. Ltd.	Patient care in hospital	Thailand
15-Feb-00	18-Feb-00	Public Health staff	Counselling techniques	Thailand
24-Feb-00	—	Dr Siem Tjam, Acadenic Co-ordination Centre, Dept. of CDC	HIV/AIDS care	Thailand
2-Mar-00	—	Med. Students, Faculty of Medicine, Ramathibodi & Mahidol Uni.	HIV/AIDS care and treatment	Thailand
8-Mar-00	—	Med. Students, Chulalongkorn University	Communicable diseases	Thailand
12-Mar-00	—	Physicians and students, Walter Reed Armed Forces Research Institute.	AIDS	USA
14-Mar-00	—	Public Prosecutors, Supreme Prosecution Bureau	Rights protection, violation, staying with people living with HIV/AIDS	Thailand
19-Mar-00	—	Senior medical administrators	HIV/AIDS program	Bangladesh
23-Mar-00	—	Army Officers, Walter Reed Armed Forces Research Institute	AIDS	USA
23-Mar-00	—	Nonthaburi Provincial Office of Welfare & Labour Protection	AIDS related issues	Thailand
27-Mar-00	—	Physicians and nurses, Paholpolphayuhasena Hospital, Kanchanaburi	Nursing care in HIV/AIDS	Thailand
30-Mar-00	—	Public Health staff	Hospital management of people living with HIV/AIDS, care and counselling	Indonesia

Date Start	Finish	Visitors	Area of interest	Country
2-Apr-00	—	Administrators	Country strategies to promote Hepatitis B vaccine	India
21-Apr-00	—	Personnel from Napolai Hospital, Samut Singkram Province	Communicable diseases	Thailand
26-Apr-00	—	UNDF	Communicable diseases and AIDS	—
8-May-00	—	Christian College	Communicable diseases	Thailand
10-May-00	—	Naratidis Ratachavakarin Hospital	Safe delivery	Thailand
12-May-00	—	Personnel, Dang Cheng Hospital	Counselling	Thailand
12-May-00	—	Mr Burenbayer Chanrav and Mr Richard Kaser, UNICEF	AIDS	International
1-Jun-00	—	Maharaj Hospital	TB & HIV management	Thailand
1-Jun-00	—	Staff from Presbyterian Church in America	AIDS	USA
4-Jun-00	—	WHO grant award recipient	Communicable diseases and AIDS	Bhutan
11-Jun-00	—	Medical and Nursing Staff, Mission College	Hospital management and services	Thailand
14-Jun-00	—	Thai Government grant recipient	TB control program	Burma
16-Jun-00	—	Teachers from CDC region 16	AIDS	Thailand
23-Jun-00	—	Faculty Physio. and Science, Ranjsit University	Physiotherapy for AIDS patients	Thailand
24-Jun-00	—	Nurses, Assumption University	Prevention and control of communicable diseases	Thailand
24-Jun-00	—	WHO grant award recipient	Hazardous waste management	Mongolia
25-Jun-00	—	Dr Shinizu, UNAIDS	Communicable diseases and AIDS	Japan
26-Jun-00	—	Students from UNAIDS	AIDS, Candle Light for Life Club	Philippines
26-Jun-00	—	Staff, Sena District Hospital, Sri Ayudhaya Province	Counselling	Thailand
28-Jun-00	—	Students and lecturers, Assumption University	Communicable disease control & prevention	Thailand
29-Jun-00	—	Reporters	Ambulatory Care	Thailand
30-Jun-00	—	Navy trainers, Medical Division, Royal Thai Navy	AIDS	Thailand
2-Jul-00	—	Heads of families, Phaijathai district office	Treatment, care and other hospital services	Thailand
3-Jul-00	7-Jul-00	Staff, Hua Chaew Hospital	Infectious disease control	Thailand

Date Start	Finish	Visitors	Area of interest	Country
7-Jul-00	—	Medical students	General medicine	Thailand
27-Jul-00	—	Participants, Sirinthorn Training Centre for Children and Youth	Participation in AIDS patients' activities	Thailand
4-Aug-00	—	Medical students, Ramathibodi Hospital, Mahidol University	Primary, secondary and tertiary prevention and care in HIV/AIDS	Thailand
7-Aug-00	—	Students from Research Institute of Public Health Sciences	AIDS	Japan
9-Aug-00	—	Staff from United States Army Medical Corps	AIDS	USA
9-Aug-00	—	Hilary Grill, Advisor from Curtin University	AIDS	Australia
16-Aug-00	—	Staff of the Centre of Informal Education for Adults, Nakornsrithamarat Province	AIDS care and treatment	Thai
16-Aug-00	—	UNAIDS staff	AIDS and Candle Light for Life Club	International
21-Aug-00	—	Staff & youth of Kanagawa Youth Association	AIDS and its impact; visit AIDS patients	Japan
22-Aug-00	—	Ron Axelby, AusAID	AIDS	Australia
28-Aug-00	—	Students, Rajmongkol Technology Institute, Supanburi campus	Indoor photography, academic information on AIDS	Thailand
30-Aug-00	—	Students, Kasem Bandit University	AIDS, living conditions and the impact of disease on people living with HIV/AIDS	Thailand
31-Aug-00	—	Medical students and nurses, ASEAN Institute of Development in Health	Clinical aspects of AIDS	ASEAN
4-Sep-00	—	Physicians, nurses, Maehong Sun Province, Public Health Office	HIV/AIDS care and treatment	Thailand
11-Sep-00	—	Staff, Yala Provincial Public Health Office	Comprehensive system of HIV/AIDS care	Thailand
12-Sep-00	—	Nursing students and teachers, Army Nursing College	Management, prevention and control of communicable disease	Thailand
25-Sep-00	—	Nursing students and teachers, Army Nursing College	Management, prevention and control of communicable disease	Thailand
2-Oct-00	13-Oct-00	Medical students, Faculty of Medical Technology, Rangsit University	Clinical microbiology	Thailand
2-Oct-00	—	Public Health staff	AIDS care and treatment	Indonesia

Date Start	Finish	Visitors	Area of interest	Country
2-Oct-00	13-Oct-00	Bureau of Mental Health , Development Dept. of Mental Health, Ministry of Public Health	International workshop on HIV counselling	Thailand
2-Oct-00	—	Students, Faculty of Medical Technology, Chulalongkorn Uni.	Training	Thailand
13-Nov-00	5-Jan-01	Faculty of TropMed, Mahidol University	Data collection for research	Thailand
15-Nov-00	—	Staff, Malaysian Ministry of Public Health	Palliative and terminal AIDS care	Malaysia
16-Nov-00	—	Colonel Sirapa Iamsila, Armed Forces Research Division in Medical Science	HIV serology laboratory	Thailand
21-Nov-00	—	Public Health staff	HIV/AIDS clinical management	Thailand
24-Nov-00	—	Faculty of Medicine, Ramathibodi Hospital	HIV/AIDS care and awareness	Thailand
29-Nov-00	—	Clinical Pathology Dept., Kanchanapisek College of Medical and Public Health Technology.	Laboratories	Thailand
29-Nov-00	—	Faculty of Public Health, Mahidol University	Sample collection and laboratory investigation	Thailand
12-Dec-00	—	Medical technical staff from China	HIV/AIDS issues	China
12-Dec-00	—	Senior administrators, Vietnam	AIDS	Vietnam
18-Dec-00	—	Teachers, Faculty of Nursing, Prince of Songklanakarin University	AIDS care and treatment	Thailand

APPENDIX 5
ADDITIONAL NOTES FROM BAMRAS

This appendix includes useful notes on Bamras, not all of which is in the main report.

Patient numbers

The number of patients treated at Bamras between 1983 and 2000 is tabulated in Table A1. This shows a continuing increase in the number of patients treated, particularly Outpatients. Most of the increase is attributable to HIV/AIDS patients.

Table A1: Inpatients, outpatients, and the number of each with HIV/AIDS[20].

	Total	IP	OP	HIVIP	HIVOP
1982	101567	8510	93057	–	–
1983	91789	9915	81874	–	–
1984	114072	10954	103118	–	–
1985	120734	11515	109219	–	–
1986	124913	11900	113013	–	–
1987	153143	15628	137515	8	11
1988	151548	13151	138397	122	197
1989	–	–	–	211	309
1990	142342	12523	129819	271	551
1991	151599	13057	138542	329	793
1992	160084	13957	146127	629	1233
1993	186062	17888	168174	939	2857
1994	202258	18196	184062	1325	5316
1995	195779	14396	181383	1574	10532
1996	202099	15384	186715	1799	13426
1997	212510	15005	197505	2666	20917
1998	217664	14542	203122	3355	22177
1999	203982	14380	189602	4000	23200
2000	210290	14018	196272	3015	31674

HIV/AIDS Inpatient Service — Nurses

Nurses provide patient education (during admission and before patients are discharged) which focuses on nutrition and drug compliance. Patients are also encouraged to improve their nutrition and physical and psychological health in relation to HIV/AIDS and TB. About 50 per cent of patients consulted the ward nurses by telephone after discharge. The major concerns dealt with by telephone counselling relate to drug therapy, nutrition, and follow-up arrangements. Nurses deliver psychosocial support for terminal patients. Meditation, massage and other alternative therapies are used to relieve a patient's stress and to improve comfort.

20 Minor discrepancies between this and earlier tables and figures are due to differences in data sources.

Nurses or health educators provide weekly information sessions for patients and families on a rotating schedule of topics.

The infection control nurse from each ward collects data and reports monthly to the infection control practitioner. All of these nurses have undertaken training at various levels. The monthly ward report of nosocomial infections is displayed in each ward and reported via the infection control practitioner to the Infection Control Committee. Every ward visited by members of the Team had an accessible sharps disposal container on a trolley which can be moved to the patient's bedside for procedures.

Treatment of cryptococcal meningitis

Inpatient numbers at Bamras have remained relatively constant, between 14,000 and 15,000 a year, between 1997 and 2000. The proportion of HIV/AIDS patients among admissions has increased slowly from 17.8 per cent (2666 of 15,005 admissions) in 1997 to 21.5 per cent (3015 of 14,018 admissions) in 2000. This is in the context of a 47 per cent increase in services to patients with HIV/AIDS (from 23,583 to 34,689 inpatients plus outpatients) over the same period. The small increase in admissions of HIV/AIDS patients is attributable to the management of cryptococcal meningitis in the ACU.

The diagnoses of patients with HIV/AIDS admitted to Bamras in 2000 can be seen in Figure A1. The graph and Table A2 indicate that the main opportunistic infections are cryptococcus and tuberculosis. However, there has been a change in specific diagnoses among patients admitted to Bamras with HIV/AIDS (see Table A2), due to the change in the management of cryptococcal meningitis from 1996 to 2000. In 1996, 755 patients with cryptococcal meningitis were admitted, whereas in 2000 only 29 (of a total of 1105) cases were treated as inpatients. By 2000, almost all cases of cryptococcus were diagnosed and managed in the ACU.

Figure A1: Diagnosis in IPD patients with HIV BIDH 2000

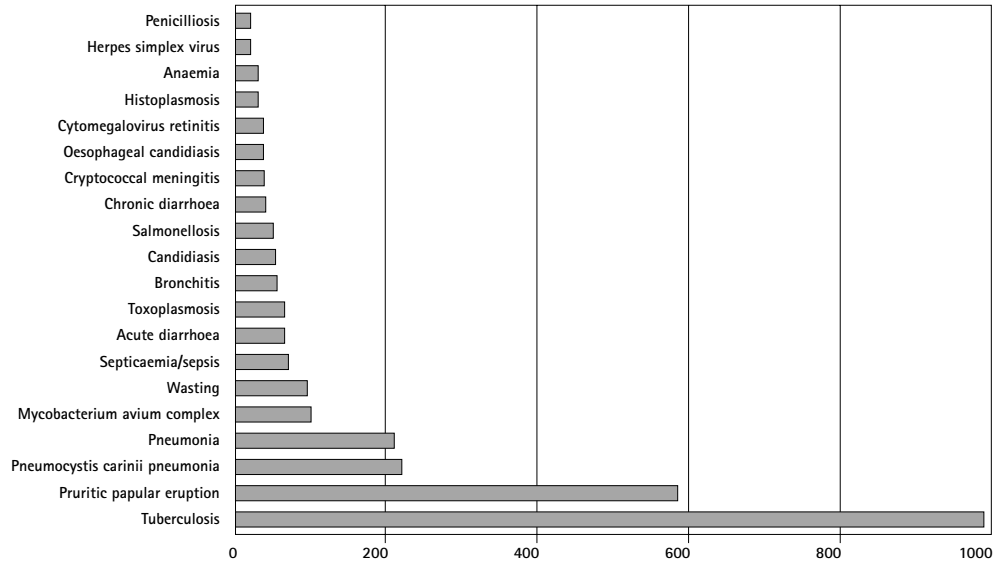


Table A2: Specific diagnoses in HIV/AIDS inpatients in Bamras 1995, 1996 and 2000

	1995		1996		2000	
	n	(%)	n	(%)	n	(%)
Cryptococcal meningitis	592	(37.6)	755	(42.0)	29	(1.0)
Tuberculosis	495	(31.4)	672	(37.4)	982	(32.6)
PCP	129	(8.2)	154	(8.6)	235	(7.8)
Cerebral toxoplasmosis	49	(3.1)	60	(3.3)	66	(2.2)
CMV retinitis	31	(2.0)	55	(3.1)	27	(0.9)
Other	278	(17.7)	103	(5.7)	1676	(55.6)
Total HIV/AIDS admissions	1574	(100)	1799	(100)	3015	(100)

HIV/AIDS outpatient service

At baseline, in March 1997, the Bamras Outpatient Department was located in a newly renovated ground floor area consisting of 10 separate cubicles, each with an area for a doctor and attending nurse. Three doctors worked there. HIV/AIDS outpatients were seen on Wednesdays when 400 to 600 patients with HIV/AIDS attended. Medical care, HIV assessment and testing were performed.

Between 1996 and 2000 there was a 136 per cent increase in HIV/AIDS attendances at the Outpatient Department (from 13,426 to 31,674 a year). Now four doctors attend each day. Most start outpatients following a ward round of inpatients. On Wednesday mornings there is an anti-retroviral clinic. There is a separate option for anonymous and other HIV testing following pre-test counselling organised in the counselling department.

There has been a significant increase in activity in almost all Outpatient Departments as can be seen in Table A3.

Table A3: Numbers of patients attending Bamras Outpatients Department, 1997 to 2000

	1997	1998	1999	2000	HIV2000
Medicine	59154	66725	55553	63323	27232
Paediatrics	39282	41336	40454	39346	338
Surgery	16434	8619	11737	18401	227
Obstetrics	30756	24594	23766	21669	416
Gynaecology	5475	6601	7125	7933	370
ENT	–	6008	6352	6847	851
Ophthalmology	–	4531	4325	4792	1738
Dental	3794	4970	8148	8547	165
Physiotherapy	1492	–	1944	2820	33
ER	34111	32571	30198	22594	304

The referral sources for patients are:

- Self referral.
- Other hospitals, especially university hospitals, where there are limits on numbers of outpatients seen and numbers of inpatients treated with HIV/AIDS.
- NGOs, which refer poor individuals to Bamras.

Anti-retrovirals

There is an increasing availability of anti-retrovirals (ARVs) to patients at Bamras, although the proportion of patients receiving them is still small. Estimates of the number of patients receiving double and triple therapy varied widely from 168 to 700 in 2001. The ARV clinic is on Wednesdays and each of three doctors sees 65 to 75 patients a week. The limitation on numbers receiving anti-retrovirals is financial.

The medical and pharmacy staff display an understanding of the clinical management of nucleoside reverse transcriptase inhibitors (NRTIs), and non-nucleoside reverse transcriptase inhibitors (NNRTIs). There is little practical experience with protease inhibitors (PIs) although some patients have been able to access Saquinavir on clinical trials and a few receive Nelfinavir.

The system for assessing patients for ARV therapy is:

- The triage/screening nurse identifies that the patient wants ARV.
- The patient is referred to social work and counselling for assessment of income, and basic information is provided about risks versus benefits.
- If the patient is interested he/she sees the doctors who are running the Wednesday clinic.
- Fifty per cent of those seeing the medical officer can afford ARV and decide to start treatment.
- One hundred per cent of people attending the ARV outpatient service want treatment.

From estimates of units of ZDV and stavudine used in the pharmacy department, it appears that during 1999, 350 people were prescribed ARVs at Bamras, compared with 1500 the following year. It is estimated that 70 per cent receive double therapy and 30 per cent receive triple therapy including mostly NRTIs and NNRTIs.

There have been ARV trials at Bamras, some in the region sponsored by UNICEF and others nationally sponsored by the Ministry of Public Health. Short course zidovudine is available for all pregnant women with HIV infection (sponsored by the Princess' Fund). Until 1998, the Thailand Government funded double therapy. In April 2001, trials were funded by a mixture of: insurance payments; clinical trial placements (from the Ministry of Public Health although the criteria are unclear); NGOs (Médecins sans Frontières); and pharmaceutical companies.

NRTIs are now one fifth of their previous cost but there have been no cost reductions of NNRTI or PI or abacavir. ARVs are unaffordable for most Bamras patients.

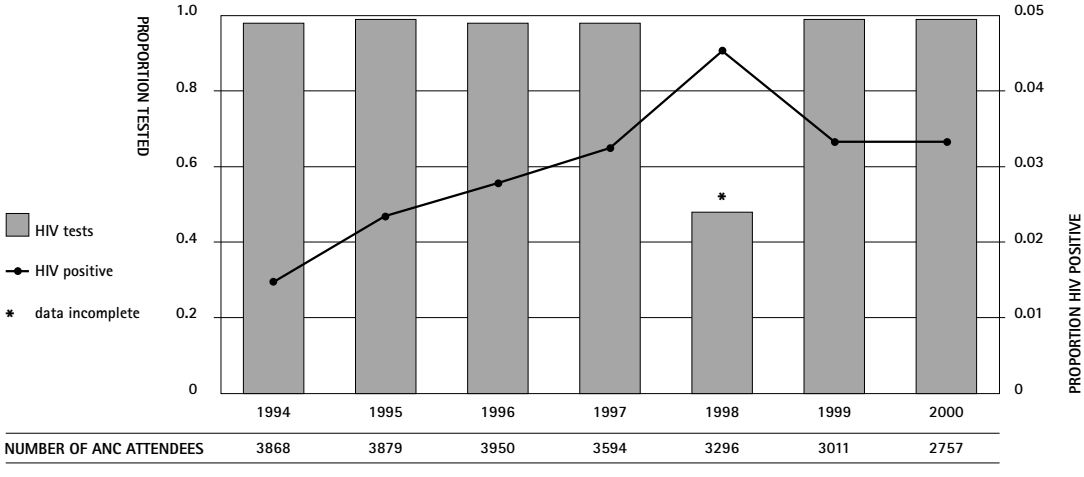
Antenatal Clinic (ANC)

The baseline survey in March 1997 identified from the ANC register that, of 342 women, most (181 or 53 per cent) were aged 21 to 39, 120 (35 per cent) were attending with their first pregnancy, 124 (36 per cent) with their second, and 41 (12 per cent) with their third. Of these women, 316 (92.4 per cent) had their initial HIV result recorded and 161 (47 per cent) had a second recorded. Seven (0.3%) women were HIV positive at baseline review and one (0.6%) at follow-up.

Practice is now to hold group pre-test HIV counselling and individual post-test counselling. The process is that all patients, unless they bring a recent written test result, are encouraged to have HIV testing twice during pregnancy. A focus of the counselling is prevention of new HIV infection, especially during pregnancy. Nurses report that about 80 per cent of the partners of HIV positive women also attend for counselling. Figure A2 indicates the proportion and number of HIV tests conducted at the ANC plus the proportion of HIV-positive patients.

Written IEC material is now available, aiming to provide the baseline level of education and knowledge among mothers. Such material is handed to patients and accessible without request.

Figure A2: Proportion of ANC attendees tested & positive for HIV BIDH 1994 to 2000



Ambulatory Care Unit

Patients who attend the ACU are referred from:

- The duty triage nurse at Bamras who assesses all patients presenting to the hospital giving priority to:
  - Moderately ill patients who have previously been to the ACU, and
  - New patients with HIV/AIDS who are moderately ill.

(The triage nurse may initially direct other new patients to the Outpatient Department).

- Inpatient service for continuing treatment after discharge e.g. infusions of antibiotics.
- Other hospitals in Bangkok e.g. Sritanya Psychiatric Hospital, Mercy Hospice, Bangkok Christian Hospital.
- Provincial and district hospitals in other regions of Thailand

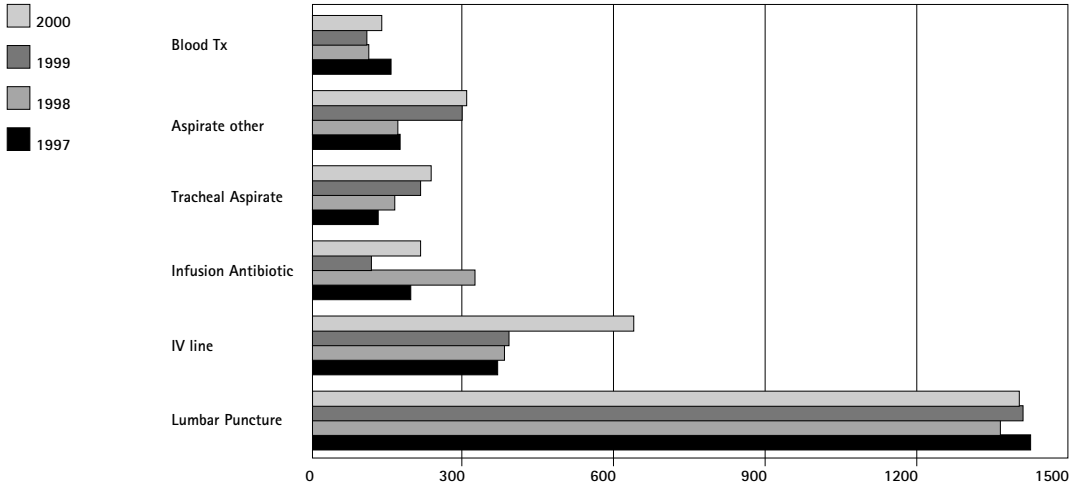
The most common diseases diagnosed remain cryptococcus and TB, both opportunistic infections amenable to prevention and therapy with widely available agents. See Table A4.

Table A4: The diagnoses of patients seen in ACU, 1997, 1998 and 2000

	1997	1998	2000
Crypto Men	991	1413	1076
TB	476	905	1076
Oral Candidiasis	509	124	308
PCP	80	109	82
CMV	31	59	36
Toxo	26	49	36
Penicillosis	4	4	9
Other/undiagnosed	1688	991	1695
Total	3805	3654	4318

The procedures undertaken at the ACU are shown in Figure A4, with trends by year indicating that the number of procedures has generally increased.

Figure A4: Procedures ACU BIDH 1997 to 2000

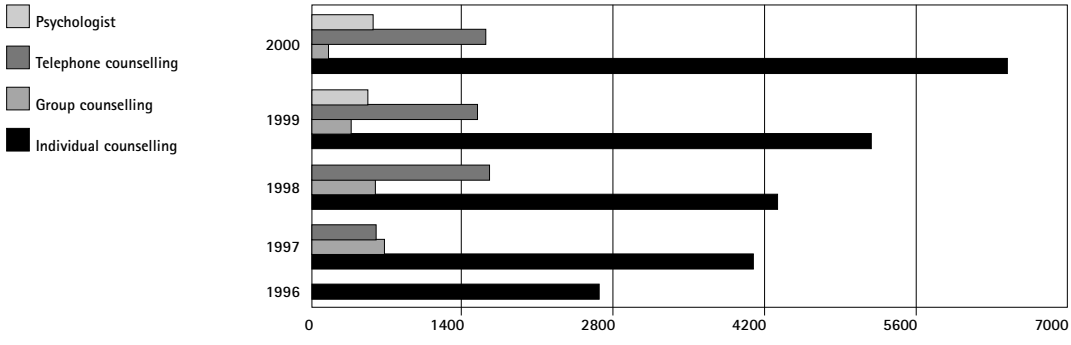


Counselling service

In April 2001 the evaluation of the Thailand HIV/AIDS Ambulatory Care Project identified that the Bamras counselling unit sees about 50 patients a day, most of whom (about 70 per cent) are new, with about 20 per cent of new patients having their first HIV test. Following initial pre-test counselling, HIV antibody tests are requested and about three to four days later after test results are received, the patient receives post-test counselling.

All components of the counselling service provide telephone counselling. This has increased from 597 calls in 1997 to 1857 in 1999. Counselling is provided by nutritionists, specialist counsellors, social workers and psychologists. The types of counselling are shown in Figure A5.

Figure A5: Counselling types BIDH 1996 to 2000



APPENDIX 6
PROTOCOLS REVIEWED AS PART OF CONTENT AND QUALITY ASSESSMENT

PROTOCOLS ACU	SOURCE	LANGUAGE	YEAR
Bactrim densensitisation	ASC	English/Thai	–
Sharps protocol	Bamras	Thai	1998
Methicillin resistant *Staphylococcus aureus*	Bamras	Thai	1998
Venepuncture	Bamras	Thai	1998
Intravenous therapy	Bamras	Thai	1994
Referral system ACU	Bamras	Thai	1998
Oxygen delivery in ACU	Bamras	Thai	–
Trans tracheal aspiration	Bamras	Thai	–
Lymph node aspiration	Bamras	Thai	1999
Unacceptable staff behaviour	Bamras	Thai	2000
Terminal Care	Bamras	Thai	–
Wound Swab	Bamras	Thai	–
Oxygen measurements	Bamras	Thai	–
Nurse assessment ACU	Bamras	Thai	–
PROTOCOLS INPATIENTS			
Nurse in charge job description	Bamras	Thai	2000
Patient admission	Bamras	Thai	2000
Orientation for new patient	Bamras	Thai	2000
Registry on wards	Bamras	Thai	2000
Patient assessment form	Bamras	Thai	2000
Plan of ordering investigation	Bamras	Thai	2000
Procedures collection	Bamras	Thai	2000
Nursing activity by department	Bamras	Thai	2000
Nutrition procedure and water	Bamras	Thai	2000
Infection control manual	Bamras	Thai	2000
Counselling referral procedure	Bamras	Thai	2000
Work instructions re dealing with IV	Bamras	Thai	2000
Health education	Bamras	Thai	2000
Discharge planning	Bamras	Thai	2000
Recording in IPD	Bamras	Thai	2000

There was also a list of eight further nursing protocols under development by designated teams of nursing staff. These were nursing management of tuberculosis, cryptococcal meningitis, toxoplasmosis, AIDS dementia, Pneumocystis carinii pneumonia, penicilliosis, psoriasis and chronic diarrhoea.

APPENDIX 7
TRAINING COURSES CONDUCTED BY ALBION STREET CENTRE — BAMRASNARADURA HOSPITAL

1997

ITEM	COURSE	DATE	PARTICIPANTS
1	Nurse Practitioner training course	4–11 Aug.	12
2	Triage Nurse training course	20–31 Oct.	6
3	Foundation skills in communication for Health Care Workers in HIV/AIDS	11–28 Nov.	198
4	Basic telephone counselling	2–8 Dec.	9

1998

ITEM	COURSE	DATE	PARTICIPANTS
1	IC nursing training	31 Mar., 3 Apr.	19
2	IC medical training	2 Apr.	11
3	Basic nutrition course	27 Apr.–7 May	8
4	Train the Trainer	18–22 May	15
5	Advanced telephone counselling	25–30 May	8
6	Triage Nurse Level 1	13–17 Jul.	6
7	Triage Nurse Level 2	20–24 Jul.	8
8	Nurse Practitioner	20–24 Jul.	6
9	Inpatient counselling	4–7 Aug.	15
10	Nurse Practitioner Level 3	7–18 Sep.	6
11	Good clinical research practice for Health Care Workers in HIV/AIDS	10 Sep.	47
12	Specific Social Worker and Psychologist training	26 Oct.–6 Nov.	4
13	Specialist Nurse Counsellor training	16–27 Nov.	10
14	Advances in HIV medicine	17 Nov.	26
15	AIDS-Dementia complex	–	30

1999

ITEM	COURSE	DATE	PARTICIPANTS
1	Train the Trainer	January	8
2	Pre and post HIV test counselling (Group 1)	1–5 Feb.	20
3	Pre and post HIV test counselling (Group 2)	15–19 Feb.	22
4	Foundation skills in communication for Health Care Workers in HIV/AIDS	8–12 Feb.	111
5	Basic telephone information and counselling training	1–5 Mar.	16
6	The pharmacology of drugs used in patients with HIV/AIDS	8–20 Mar.	30
7	Women's health — key messages for Clinicians	1 Apr.	18
8	Infection control training for Doctors	27 Apr.	12
9	Specialist Psychologist and Social Worker training	10–21 May	4
10	Role of liaison psychiatry in HIV treatment facilities at Srithanya Hospital	19 May	30
11	Role of liaison psychiatry in HIV treatment facilities at Bamrasnaradura Hospital	20 May	17
12	Nutrition training — Level 1, 2	21 Jun.–2 Jul.	36
13	Health Care Worker with HIV caseload - Level 2	28 Jun.–2 Jul.	13
14	Triage Nurse and Nurse Practitioner training - Level 1	16–27 Aug.	16
15	Specialist Nurse Counsellor training	Sep.	6
16	Prescribing psychiatric medications to patients with HIV for Srithanya Doctors	15 Sep.	16
17	Prescribing psychiatric medications to patients with HIV for Bamrasnaradura Doctors	16 Sep.	29
18	Foundation skills in communication for Health Care Workers in HIV/AIDS	8–14 Sep	143
19	Pre and post HIV test counselling (Group 1)	29 Nov.–3 Dec.	16
20	Pre and post HIV test counselling (Group 2)	13–16 Dec.	17

2000

ITEM	COURSE	DATE	PARTICIPANTS
1	Nurse Practitioner Level 3	31 Jan.–3 Feb.	10
2	Foundation skills in communication for Health Care Workers in HIV/AIDS	17 Feb.	20
3	Basic telephone information and counselling training	22–25 Feb.	22
4	Train the Trainer	7–10 Mar.	13
5	Nutrition information and impact on HIV/AIDS patient care for Health Care Workers	21–24 Mar.	22
6	Nutrition training – Level 1	27–28 Mar.	12
7	Advanced Train the Trainer	8 Jun.	9
8	Foundation skills in communication for Health Care Workers in HIV/AIDS at Police Hospital	19–20 Jun. 0	30
9	Foundation skills in communication for Health Care Workers in HIV/AIDS at Bamrasnaradura Hospital	4–10 Jul.	202
10	Patient satisfaction/Social research training	3–12 Jul.	6
11	Marketing workshop – Advanced Train the Trainer	13–14 Jul.	11
12	Pre and post HIV test counselling (Group 1)	7–10 Aug.	27
13	Pre and post HIV test counselling (Group 2)	15–18 Aug.	27
14	Triage Nurse/Nurse Practitioner training - Level 1	18–29 Sep. 0	16
15	Basic telephone counselling	16–19 Oct.	22
16	Triage Nurse/Nurse Practitioner training - Level 2	30 Oct.–3 Nov.	16
17	Working with children affected by HIV	14–15 Dec.	11

2001

ITEM	COURSE	DATE	PARTICIPANTS
1	Triage Nurse/Nurse Practitioner training - Level 3	22 Jan.–2 Feb.	16
2	Basic nutrition and HIV/AIDS for Counsellors, Nurses and Doctors (Group 1)	12–15 Feb.	13
3	Basic nutrition and HIV/AIDS for Counsellors, Nurses and Doctors (Group 2)	20–23 Feb.	10
4	Staff orientation and performance management	26–27 Mar.	33

APPENDIX 8
RESEARCH TOPICS OF MEDICAL RESEARCH FELLOWS, NOVEMBER 2000

Dr Vason	Fluconazole as primary prophylaxis against cryptococcal meningitis in patients with HIV
Dr Narongsak	Fluconazole compared with amphotericin B as treatment for cryptococcal meningitis in patients with HIV
Dr Nittaya	Prevalence of dermatological pathology in patients with HIV in Thailand
Dr Sarunya	Prevalence and patterns of pain experienced by inpatients with HIV/AIDS
Dr Wisit	The role of blood cultures (MB/Bact) in the diagnosis of disseminated *Mycobacterium avium* complex disease in patients with AIDS
Dr Boonchai	The role of upper gastrointestinal endoscopy in the diagnosis of disseminated *Mycobacterium avium* complex disease in patients with AIDS.

APPENDIX 9
IEC MATERIALS FOR PATIENTS AND FAMILIES AT BAMRAS

All IEC materials met the Evaluation Team's minimum content, clarity of expression and production standards.

TOPICS	COMMENTS
1. How to take medicine correctly	Information on medicine taking e.g. AZT, DDI, Co-Trimoxazole, Anti-TB drug, and how to manage with a missing dose
2. Safe sex behaviour	What does safe sex mean to you? Knowledge about safe sex behaviour and emphasis on condom use
3. General knowledge on HIV/AIDS	How HIV affects the body, treatment available and its effectiveness
4. Understanding HIV-positive	The meaning of HIV-positive, how to deal with it and the counselling services available for further assistance
5. Understanding HIV-negative	The meaning of HIV-negative and counselling services available
6. Self care and support	Emotional support and ways of dealing with HIV
7. Problem solving techniques	Basic techniques in dealing with HIV or associated problems and available counselling services
8. Having a blood test for HIV	Information about blood tests for HIV, their importance, and highlighting confidentiality
9. Social welfare services	Information on social welfare services at Bamras and other networks for further assistance
10. Psychosocial services for people affected by HIV/AIDS	Information about psychosocial services for people with HIV/AIDS including counselling in nutrition, family issues, pregnancy, ANC, drugs and alcohol
11. Manual for health	Information on self care which focuses on minimising the impact of HIV and protecting the immune system
12. Diarrhoea and its prevention	Information about diarrhoea, symptom management and prevention
13. Selection of safe street food	Selection of high protein nutritional foods, with examples
14. Anorexia and how to deal with it	Strategies for dealing with anorexia
15. How to gain weight	Provides examples of high protein, carbohydrate and nutrient-rich foods which boost weight
16. Food hygiene and choice	Information about choosing and preparing food rich in nutrients safely
17. Good cheap, healthy food	Examples of healthy meals for a week which cost only 50 baht a day
18. Weight gain by consuming less fat	Tips on how to gain weight by consuming foods rich in nutrients with less fat
19. Snacks and easily swallowed foods	Tips on dealing with mouth and throat problems and examples of suitable foods
20. How to deal with nausea and vomiting	Tips on dealing with nausea and vomiting

TOPICS	COMMENTS
21. Centre of Health and Community (developed by Community Health Development Centre)	Information on how family members can give support to patients with HIV
22. Assistance for labourers with HIV/AIDS and their families	Information about resources for labourers and families affected by HIV/AIDS

The Team also reviewed a set of English translations of information for patients undergoing lumbar puncture which was of reasonable standard.

APPENDIX 10
SUMMARY OF INSTITUTIONAL STRENGTHENING BASED ON OUTCOME INDICATORS SET BY THE PROJECT

Achievement 1: Fully integrated patient care

Outcome	Indicators	Evaluation criteria	Data collection	Evaluation comment
1.1 Greater patient utilisation of allied health care services	• No. of occasions of service (patient counselling) in counselling, nutrition and pharmacy units • No. of patient IEC dispensed	• Trend for increase in occasions of service in counselling, nutrition and pharmacy units over time	• Review of counselling, nutrition and pharmacy unit databases, and data collection forms • Discussions with staff and STAs • Review of IEC distribution and usage report	Seen, satisfactory Done, satisfactory Materials seen and satisfactory although distribution could be improved
1.2 Increased internal referral	• % of patients referred to allied health services from general medicine (in duration of study)	• Trend of increasing patient referral to allied services from general medicine over time	• On-going outpatient flow studies	Studies undertaken – too resource intensive to be continued
1.3 Regular multi-disciplinary ward rounds	• No. of ward rounds conducted in a month • Type of disciplines attending • Acceptability of multidisciplinary ward rounds to staff	• 3 or more ward rounds a month • Minimum of 1 doctor, 1 nurse and 1 other allied health care worker attend	• Review of Project Monitoring Committee minutes • Observation of ward rounds • Discussions with doctors, nurses, counsellors and nutritionists	Not seen Ward rounds attended – multi-disciplinary nature has not been sustained but may be re-instated Undertaken

1.4 Use of integrated case notes	Short-term: • No. of activities assisting development and implementation of integrated case notes		Short-term: • Review STA reports • Discussion with STAs, Bamras doctors and medical records staff	Integrated case notes exist in some places but the extent is difficult to determine because it is unclear who wrote each comment.
	Long-term: • % of medical records containing integrated notes	Long-term: • >75 per cent of patient notes are integrated	Long-term: • Medical record review	Review of medical records will not be a method for assessing this activity.

Achievement 2: Optimal clinical care

Outcome	Indicators	Evaluation criteria	Data collection	Evaluation comment
2.1 Improvement in health and clinical outcomes	Short-term: • Mean score of patient satisfaction, mean score of subscales related to clinical care	• Increase in mean scores and decrease in variance of patient satisfaction (overall score and sub-scores)	• Patient satisfaction questionnaires	Studies seen – hospital will continue patient satisfaction studies.
	• No. of patients whose symptoms have been managed through nutritional advice	• Trend of increasing number of patients achieving symptom management from nutritional advice	• Nutrition records and database	Data seen – satisfactory
	• No of patients with decrease in depression, anxiety and stress score (DASS)	• Trend of increasing number of patients achieving decrease in DASS	• Counselling records and database	Data collected for counselling but not able to determine the number of people with DASS scores. (research project underway)
	Long-term: • No. of patients with decrease in score using brief pain inventory-short form (BPI)	• Trend of increasing number of patients with improved pain management as measured by BPI	• Review of research projects by Bamras doctors from ASC clinical placement	Talked to doctors about research projects but research is still at the planning stage for most research fellows.

2.2 Fully functioning ambulatory care service	• No. of patients attending • No. and type of procedures performed	• Trend of increased number of patients accessing service • Trend of increased range of procedures performed over duration of project	• Ambulatory care registration book/ data base review	Number of patients and type of procedures well documented.
2.3 Improved delivery and continuity of clinical care	• No. of written protocols for clinical care of HIV positive patients • % patients discharged with follow-up arranged (at hospital or other facility)	• Increase in number of protocols written in duration of project. • Increase in % of patients discharged with follow-up arranged	• Review of written protocols in outpatients • Discussions with doctors • Outpatient flow study	Protocols reviewed – satisfactory in scope and content. Undertaken Undertaken but stopped because labour intensive. Not certain how efficient referral is to outside agencies – does not appear to have improved l
2.4 Regular case conference/ peer review	• No. of case conferences in a month in counselling, medicine and nursing	• Minimum fortnightly case conferences/peer review	• Discussions with doctors and other health care professionals	Discussions undertaken – case conferences in recess but may be re-instated.
2.5 Provision of palliative care	• No. and type of palliative care offered • No. of patients accessing palliative care services	• Increase in number of palliative care services available • Trend of increased number of patients accessing these services	• Review of pain management research • Review of nutrition and counselling databases, discussions with staff	Palliative care teaching module is planned for after the evaluation visit. Content looks satisfactory, however there has not been any impact on patient care.

Achievement 3: Support of families and carers

Outcome	Indicators	Evaluation criteria	Data collection	Evaluation comment
3.1 Provision of counselling for family and carers	• No. of family and carers counselled • Type of counselling available to family and carers	• Increase in number of family members and carers of HIV-positive patients attending for counselling	• Review of counselling and nutrition unit databases • Discussion with staff of other allied health care units	Satisfactory perception by family/carers judging by focus groups but uncertain how far the service is reaching compared with need.
3.2 Appropriate community referral	• No. of community support referral and reporting protocols developed • No. of family and carers referred to community groups	• Increased number of family and carers referred to community support groups	• Review of referral protocols • Review of counselling databases • Discussions with counselling staff	Uncertain – at least some appropriate referral occurs but uncertain how far the service is reaching compared with need.
3.3 Dissemination of IEC materials for family and carers	• No. of IEC materials developed for family and carers • Extent of dissemination of IEC for family and carers	• Increased dissemination of IEC materials for family and carers	• STA reports of IEC materials usage	Local and international materials have been produced. Local material production has increased since Project implementation. Better distribution is required.

Achievement 4: Organizational support and infrastructure development

Outcome	Indicators	Evaluation criteria	Data collection	Evaluation comment
4.1 Improved/ strengthened hospital operations	• No. of departmental documentation systems implemented (including policies and procedures) • No. and type of preparatory exercises for accreditation • No. of data collection and retrieval systems developed	• Coverage and quality of systems and procedures	• Discussions with Total Quality Management committee, administration staff of hospital and departments • Review of outpatient documentation systems • Review of STA reports	Various processes undertaken — documentation was well-prepared and appropriate for accreditation. Did not talk with Total Quality Management committee.
4.2 Improved/ strengthened corporate and technical support of hospital services	• No. and type of changes in auxiliary systems, e.g. library, medical records, laboratory • Staff acceptability of changes in hospital systems • Mean staff satisfaction scores from relevant departments	• No. and type of improvements in hospital systems, • Staff acceptability of changes in hospital system • Medical record system review	• Review of auxiliary services offered • Discussions with staff • Staff satisfaction questionnaire	Significant changes observed and contributed to accreditation
4.3 Establishing/ strengthening hospital networks and support.	• No. and type of links with other health care organisations • No. and type of links with other agencies • No. and type of links with academic institutions	• Increased linkages with outside agencies	• Review of STA reports • Discussions with hospital staff • Review of documentation e.g. Memorandums of Understanding and reporting protocols	Although there has been some improvement in strengthening hospital networks there is also potential for more improvement as noted by the external agencies visited by the Team.

Achievement 5: Health care worker training

Outcome	Indicators	Evaluation criteria	Data collection	Evaluation comment
5.1 Increased staff satisfaction	• Acceptability of changes to work practice • Mean staff satisfaction scores • Mean scores on subscales	• Improvement in mean staff satisfaction scores • Improvement in mean subscale scores	• Staff satisfaction questionnaire • Discussions with staff	Discussions with staff, especially non-medical staff, indicated significantly enhanced staff satisfaction.
5.2 Change in work practice as a result of training	• No. and type of changes in work practice as a result of training • Mean change in work practice score • Mean score of change in work practice sub-scales	• Mean scores and subscores in change of work practice have increased	• Review of STA reports • Discussions with training participants • Staff satisfaction questionnaire	Significant changes had occurred in parts of the hospital e.g. nursing, infection control had significant changes in practice.
5.3 Staff trained to core skill competency (minimum standard)	• % participants meeting minimum training standard	• 70 per cent of participants reach minimum standards	• Review course evaluations	Where course evaluations have been undertaken the results were satisfactory, however no processes are in place to evaluate longer term outcomes including retention of newly acquired knowledge.
5.4 Maintenance of skills base in hospital	• No. and type of seminars given by trainers e.g. in-services • No. and type of courses undertaken for hospital staff	• Minimum three seminars per year given by staff	• Review of hospital education program • Review of evaluation forms (where available)	Satisfactory judging by observation, demand for training, obvious acceptability of training by external organisations.

5.5 Trained staff capable of delivering training courses to other health care workers from outside agencies	• No. of staff identified as capable of delivering training to outside agencies • No. of training resources available, e.g. facilities, materials etc • Long-term: No. and type of courses undertaken for outside agencies	• Minimum two staff from nursing, infection control and counselling, minimum one staff from nutrition identified as trainers	• Review STA training reports • Discussion with STAs and Bamras training staff • Review of course materials • Review of hospital education calendar • Review of participant evaluation forms	Satisfactory judging by observation, demand for training, obvious acceptability of training by external organisations.

Achievement 6: Resource efficient implementation of ambulatory care model

Outcome	Indicators	Evaluation criteria	Data collection	Evaluation comment
6.1 Resource efficient delivery of existing services in relevant hospital departments	• Change in number of staff delivering existing services • No. and type of changes to existing services • Change in staff: patient ratio • Change in staff: occasion of service ratio	• No significant increase in number of staff providing existing services • No significant increase in staff: patient ratio	• Review of human resources records • Outpatient flow studies • Review of staffing patterns • Review hospital service statistics • Review of STA reports	Generally staff provide more services as a result of the Project, with no significant increase (and sometimes a decrease) in the staff: patient ratio
6.2 Resource efficient delivery of new services in relevant hospital departments	• No. and type of services introduced • No of staff who developed skills to provide new service • Staff: occasion of service ratio	• Improvement in staff: occasion of service ratio	• Review of human resources records • Outpatient flow studies • Review of departmental services statistics • Review of staffing patterns • Review of STA reports	Good evidence of new services, better services and with no increase in the staff: service ratio.

6.3 Ambulatory care model implemented with no adverse effect on quality of hospital services	• Changes in patient satisfaction • Changes in staff satisfaction	• No decrease in patient satisfaction ratings with hospital services • No decrease in staff satisfaction ratings	• Discussions with Bamras staff • Patient satisfaction questionnaire • Staff satisfaction questionnaire	The satisfaction of patients/carers as judged by focus groups indicates that there has been no decrease in patient satisfaction.

APPENDIX 11
ACU COST SAVINGS

Methods for calculating cost savings.

1. Identify number of patients treated in the ACU by year.
2. Deduct the number of patients admitted from the ACU, because they would have been admitted and treated as in-patients regardless of whether an ambulatory care unit existed or not.
3. Determine avoided admissions. Assume 50 per cent and 90 per cent (in different scenarios) of the patients in the ACU would have been admitted if the ACU did not exist. (The total number of procedures including blood transfusion, intravenous administration of antibiotics, intravenous hydration, all aspirates, including tracheal aspirates and lumbar punctures, suggests these are reasonable extremes).
4. In three different scenarios assume the length of stay would have been either six days (the length of stay for the whole hospital in Year 2000) or three days (lower length of stay for less ill patients) or 10 days (the mean length of stay from the note audit of admitted HIV/AIDS patients including a tuberculosis ward and a male general medical ward).
5. Calculate the bed days saved by the presence of the ACU.
6. Use costs provided for 2000 for total expenditure of the hospital to calculate the average cost per bed day.
7. Use the average cost per bed day to calculate the amount 'saved' by the ACU (i.e. cost per bed day multiplied by the number of bed days saved).
8. Use the different estimates of admissions avoided and the average length of stay to determine the amount 'saved' under different scenarios.

It should be noted that:

1. In a detailed costing analysis the actual costs per bed day would be less because the whole cost of running the hospital is included, including the costs of outpatients.
2. The costs are calculated as absolute costs rather than the preferable marginal costs (not possible on the data available). It is possible that in the absence of HIV/AIDS the Bamras beds would be filled with patients with other ailments i.e. it would still cost money to run Bamras even without HIV/AIDS.
3. The average length of stay is conservative – the average for Bamras was six days in 2000, but the average for the patients with HIV/AIDS in the mini-audit of notes conducted by the Team was 10 days. The use of three days was based on the assumption that a significant proportion of those admitted would have been discharged earlier than those currently admitted.
4. The assumption that only 50 per cent would have been admitted prior to the existence of the ACU is also conservative judged by the number of procedures performed in the ACU.

Number of in-patients, 2000*	14,380
Ambulatory care patients, 2000*	4193
Patients admitted from ACU, 2000*	1140
Net number of ACU patients, not admitted, 2000	3053

Assumption 1 — 50 per cent of ACU patients admitted in the absence of the ACU	1526
Assumption 2 — 90 per cent of ACU patients admitted in the absence of the ACU	2747

	Bed days saved by presence of ACU
ASSUMPTION 1 — 50 PER CENT OF ACU PATIENTS ADMITTED IN THE ABSENCE OF THE ACU	
Assumption 1.1 — average length of stay in hospital is six days	9156
Assumption 1.2 — average length of stay in hospital is three days	4578
Assumption 1.3 — average length of stay in hospital is 10 days	15,260
ASSUMPTION 2 — 90 PER CENT OF ACU PATIENTS ADMITTED IN THE ABSENCE OF THE ACU	
Assumption 2.1 — average length of stay in hospital is six days	16,482
Assumption 2.2 — average length of stay in hospital is three days	8241
Assumption 2.3 — average length of stay in hospital is 10 days	27,470

If the cost per hospital bed day in 2000 was the total cost of the hospital divided by the number of bed days (i.e. 85,6371) and if the hospital cost was 295,020, 111 baht,* then the average cost per bed day is 3445 baht.	**Cost of bed days saved by presence of ACU (baht)**
ASSUMPTION 1 — 50 PER CENT OF ACU PATIENTS ADMITTED IN THE ABSENCE OF THE ACU	
Assumption 1.1 — average length of stay in hospital is six days	31,542,489
Assumption 1.2 — average length of stay in hospital is three days	15,771,245
Assumption 1.3 — average length of stay in hospital is 10 days	52,570,815
ASSUMPTION 2 — 90 PER CENT OF ACU PATIENTS ADMITTED IN THE ABSENCE OF THE ACU	
Assumption 2.1 — average length of stay in hospital is six days	56,780,614
Assumption 2.2 — average length of stay in hospital is three days	28,390,307
Assumption 2.3 — average length of stay in hospital is 10 days	94,634,357

* All data provided by Bamras for year 2000

APPENDIX 12
RELATIONSHIP OF THE NATIONAL PLAN FOR PREVENTION AND ALLEVIATION OF HIV/AIDS (1997-2001) TO THE HIV/AIDS AMBULATORY CARE PROJECT

AMBULATORY CARE PROJECT		NATIONAL PLAN	
Component	Objectives/Outcomes	Component	Objectives
Fully integrated patient care	1.1 Greater patient utilisation of allied health care services. 1.2 Increased internal referral. 1.3 Regular multidisciplinary ward rounds. 1.4 Use of integrated case notes.	• Health promotion and medical services. • Psycho-social development enabling people living with HIV/AIDS to lead a normal life. • Revising and strengthening managerial processes and mechanisms for dealing with HIV/AIDS. • Enhancing international co-operation in limiting the impact of HIV/AIDS.	1.1 To ensure that the population practicing high risk behaviour receives information and support for health and medical services to manage self protection and care. 1.2 To ensure that people living with HIV/AIDS and their families receive appropriate health promotion and adequate medical care services to maintain good health and quality of life. 1.3 To increase overall potential of health and medical care service systems in terms of quality, coverage, continuity, equality and efficiency. 2.1 To enable the population to understand and accept people living with HIV/AIDS and their families as full members of the community avoiding discrimination and violation of human rights. 2.2 To ensure that people living with HIV/AIDS and their families have access to quality counselling and they are fully capable of leading a normal life. 3.1 To ensure unity of direction in the implementation of the programme for the prevention and alleviation of AIDS, ensuring that the plan is translated into effective action. 4.1 To ensure effective regional collaboration among neighbouring countries. 4.2 To facilitate technological and technical transfer at the international level.

AMBULATORY CARE PROJECT		NATIONAL PLAN	
Component	Objectives/Outcomes	Component	Objectives
			4.3 To ensure that external assistance is utilised in accordance with the national policy directions. 4.4 To make the national HIV/AIDS plan known internationally.
Optimal clinical care	2.1 Improvement in health and clinical outcomes. 2.2 Fully functioning ambulatory care service. 2.3 Improved delivery and continuity of clinical care. 2.4 Regular case conference/peer review. 2.5 Provision of palliative care. 2.6 Effective infection control system.	• Health promotion and medical services.	1.1 To ensure that population practicing high risk behaviour receives information and support for health and medical services to manage self protection and care. 1.2 To ensure that people living with HIV/AIDS and their families receive appropriate health promotion information and adequate medical care services to maintain good health and quality of life. 1.3 To increase overall potential of health and medical care service systems in terms of quality, coverage, continuity, equality and efficiency.
Support of family and carers	3.1 Provision of counselling for family and carers. 3.2 Appropriate community referral. 3.3 Dissemination of IEC materials for family and carers.	• Psycho-social development enabling persons living with HIV/AIDS to lead a normal life.	2.1 To enable the population to understand and accept people living with HIV/AIDS and their families as full members of the community avoiding discrimination and violation of human rights. To ensure people living with HIV/AIDS and their families have access to quality counselling and they are fully capable of leading a normal life.

AMBULATORY CARE PROJECT		NATIONAL PLAN	
Component	Objectives/Outcomes	Component	Objectives
Organisational support and infrastructure development	4.1 Improved/ strengthened hospital operations. 4.2 Improved/ strengthened corporate and technical support of hospital services. 4.3 Establishing/ strengthening hospital networks and support.	• Revising and strengthening managerial processes and mechanisms for dealing with HIV/AIDS.	3.1 To ensure unity of direction in the implementation of the programme for the prevention and alleviation of AIDS, ensuring that the plan is translated into effective action.
Health care worker training	5.1 Increased staff satisfaction. 5.2 Change in work practice as a result of training. 5.3 Staff trained to core skill competency (minimum standard). 5.4 Maintenance of skills base in hospital. 5.5 Trained staff capable of delivering training courses to other health care workers from outside agencies.	• Revising and strengthening managerial processes and mechanisms for dealing with HIV/AIDS. • Developing research and related knowledge in preventing and alleviating AIDS.	3.1 To ensure unity of direction in the implementation of the programme for the prevention and alleviation of AIDS, ensuring that the plan is translated into effective action. 4.1 To keep abreast of the HIV/AIDS situation and provide information which generates understanding among all concerned sectors. This will help ensure that all parties join hands in dealing with the problem within the context of Thai society, using the holistic approach more likely to lead to a thorough and sustainable solution.
Resource efficient implementation of ambulatory care model	6.1 Resource efficient delivery of existing services in relevant hospital departments. 6.2 Resource efficient delivery of new services in relevant hospital departments. 6.3 Ambulatory care model implemented with no adverse effect on quality of hospital services	• Health promotion and medical services.	1.1 To ensure that the population practicing high risk behaviour receives information and support for health and medical services to manage self protection and care. 1.2 To ensure that people living with HIV/AIDS and their families receive appropriate health promotion information and adequate medical care services to maintain good health and quality of life. 1.3 To increase overall potential of health and medical care service systems in terms of quality, coverage, continuity, equality and efficiency.

APPENDIX 13
SUMMARY OF SUSTAINABILITY OF INSTITUTIONAL STRENGTHENING BASED ON OUTCOME INDICATORS SET BY THE PROJECT

Achievement 1: Fully integrated patient care

Outcome	Indicators, Evaluation criteria, Data collection	Institutional strengthening and sustainability
1.1 Greater patient utilisation of allied health care services	See Appendix 10	Counselling (including nutritional counselling) in particular has become very much the normal practice and will be sustained, as will the changes in pharmacy and infection control. In both instances the sustainability is enhanced because the practices have become part of daily practice. The project has contributed significantly in the production of IEC materials. Development of new materials continues and this practice will be sustained. However, the distribution of materials is an area which may need on-going support.
1.2 Increased internal referral	See Appendix 10	A significant amount of time and effort was put into patient flow studies. In general, these indicated improvement of patient referral and had impact on proper monitoring of impact and quality care assessment. The Project contributed to strengthening monitoring capacity. The time and effort taken to do this would make it difficult to sustain. Other measurement indicators may need to be worked out for quality care assessment.
1.3 Regular multidisciplinary ward rounds	See Appendix 10	A multi-disciplinary approach to patient care was one aim of the Project. This practice has now been enshrined into the normal practice of the ACU but has not been sustained for inpatients.
1.4 Use of integrated case notes	See Appendix 10	The case notes are partly integrated. This practice has been strengthened through the process of implementing the Project. It is quite difficult to tell when notes are integrated because in the Team's note audit it was frequently difficult to tell who wrote which section.

Achievement 2: Optimal clinical care

Outcome	Indicators, Evaluation criteria, Data collection	Institutional strengthening and sustainability
2.1 Improvement in health and clinical outcomes	See Appendix 10	The hospital continues to attract patients because of its reputation as the leading hospital in HIV/AIDS treatment care and support. Patient satisfaction surveys have been conducted and the hospital is keen to keep conducting such surveys. Nutrition advice and support has been useful and the hospital is able to continue nutrition counselling for patient care. Records on counselling have been strengthened and there is adequate evidence that this will be sustained as counselling is occurring at various levels and is clearly incorporated into expected practice. Doctors have been sensitised to doing evidence based research and projects are underway. However it is not possible to determine whether the skills will be sustained or whether the planned research projects are of sufficient quality.
2.2 Fully functioning ambulatory care service	See Appendix 10	The ambulatory care model has been strengthened and has created significant interest from other multilateral agencies. The number of procedures in ACU has increased over time. The model has become part of standard hospital practice in providing care and support to those affected by HIV/AIDS.
2.3 Improved delivery and continuity of clinical care	See Appendix 10	The Ministry of Public Health has already developed and written national standards for clinical management of HIV/AIDS. Treatment guidelines for HIV/AIDS have been incorporated into the hospital practice manual, with substantial components provided by staff. A comprehensive patient flowchart has been developed. A significant number of protocols have been developed and are listed in **appendix 6**. These can be easily sustained, especially as they are also part of hospital accreditation. For maximum sustainability, it is important to incorporate best practice outcomes of the project into the national protocol.

Achievement 2 (continued)

Outcome	Indicators, Evaluation criteria, Data collection	Institutional strengthening and sustainability
2.4 Regular case conference/ peer review	See Appendix 10	Regular grand rounds were initially introduced and became standard practice, however at the time of the review they had stopped. Regular case conference and peer review should be part of normal hospital practice. The recent problems leading to their cancellation are thought to be temporary, however sustainability must be considered problematic.
2.5 Provision of palliative care	See Appendix 10	Relatively little has happened in palliative care management, however courses are planned. Experiences from the ACU should be incorporated into the national protocol to ensure sustainability.

Achievement 3: Support of family and carers

Outcome	Indicators, Evaluation criteria, Data collection	Institutional strengthening and sustainability
3.1 Provision of counselling for family and carers	See Appendix 10	Counselling and the capacity for proper counselling have been strengthened. This has become part of the corporate function of the hospital in supporting those affected by HIV/AIDS. Staff capacity and collaboration between the different sections has been demonstrated. This has been one of the major achievements of the projects.
3.2 Appropriate community referral	See Appendix 10	The Candle Light for Life Cub receives referrals from many sources. The link between the community and the hospital is not clear. However community satisfaction with services is very positive. The extent and sustainability of relationships with non-government organisation is not clear to the Team.
3.3 Dissemination of IEC materials for families and carers	See Appendix 10	Publications have been developed and produced through the hospital publication section. Appropriate materials can be printed and sustained, however there is some concern over whether the distribution channels are wide enough. Sustainability is likely because of the demand and the fact that new materials have been developed after the Project.

Achievement 4: Organisational support and infrastructure development

Outcome	Indicators, Evaluation criteria, Data collection	Institutional strengthening and sustainability
4.1 Improved/ strengthened hospital operations	See Appendix 10	The project contributed to the accreditation process. The hospital now has clear guidelines on patient care and support. Data collection and retrieval systems have improved and now appear to contribute to self-evaluation of the individual sections of the hospital. The fact that the hospital received accreditation suggests a major commitment; hence the changes are likely to be sustainable.
4.2 Improved/ strengthened corporate and technical support of hospital services	See Appendix 10	In general, staff interviewed valued the input of the project which had broadened the scope of the staff to participate in patient care. Most changes appear incorporated however some, such as the library services, have not been utilised as much as hoped and therefore might not be sustainable.
4.3 Establishing/ strengthening hospital networks and support	See Appendix 10	Students and overseas visitors come to Bamras to observe and learn and this has increased the hospital's profile as the AIDS centre of excellence. Many of these people visit Bamras rather than the Project alone, however they take the opportunity to visit the Project. The often informal nature of these arrangements makes it difficult to determine sustainability. However, if Bamras maintains its position as a leader, visitors are likely to continue. Some of the links have not been as strong as might have been hoped e.g. with the WHO Collaborating Centre, NGOs and multilateral agencies.

Achievement 5: Health care worker training

Outcome	Indicators, Evaluation criteria, Data collection	Institutional strengthening and sustainability
5.1 Increased staff satisfaction	See Appendix 10	Staff satisfaction has been demonstrated to be good and in most instances improvement of procedures by staff have been institutionalised. In general, nurses, nutrition, pharmacy, counselling and antenatal care staff demonstrated satisfaction with the Project input.
5.2 Change in work practice as a result of training	See Appendix 10	There have been significant changes in work practice in most of the sections involved in the Project. These practices have been institutionalised.
5.3 Staff trained to core skill competency (minimum standard)	See Appendix 10	More than 70 per cent of staff reached minimum training requirements in those courses where it was measured. The importance of training is that skills, once learned and implemented, remain with the trained person, enhancing sustainability.
5.3 Staff trained to core skill competency (minimum standard)	See Appendix 10	There is an active staff training program. These programs will continue and the Team saw schedules of planned training for the future. There is no doubt that the training in the hospital is institutionalised and sustainable. The future of training for the country and the region is less certain. (see section below).
5.5 Trained staff capable of delivering training courses to other health care workers from outside agencies	See Appendix 10	Bamras has the right environment for its staff to transfer skills of care to others in the country and the international region. With additional support it can maintain its objective of being the national and international training centre. It is already training people in the country and the region. This is sustainable in Thailand. Additional support is needed for Bamras to be an international training centre. This includes encouragement, commitment, policy support and resources.

Achievement 6: Resource efficient implementation of the ambulatory care model

Outcome	Indicators, Evaluation criteria, Data collection	Institutional strengthening and sustainability
6.1 Resource efficient delivery of existing services in relevant hospital departments	See Appendix 10	The staff: patient ratio has remained generally the same despite the increasing caseloads. Almost all staff have demonstrated improvement in knowledge and/or quality of care.
6.2 Resource efficient delivery of new services in relevant hospital departments	See Appendix 10	The following services can be improved and sustained: counselling (group, individual and telephone), integrated comprehensive care of people affected by HIV/AIDS, efficiency in pharmaceutical services, efficiency in infection control, training of trainer capacity at Bamras, improvements in antenatal care services (pre-test and post-test counselling).
6.3 Ambulatory care model implemented with no adverse effect on quality of hospital services	See Appendix 10	Although there is still stigma in the community those receiving services from Bamras are generally satisfied with services. The model is part of the hospital function and can be sustained.

APPENDIX 14
DEPARTMENT OF TECHNICAL AND ECONOMIC CO-OPERATION: PROJECT INFORMATION REPORT FOR THE PUBLIC HEALTH SECTOR: PROJECTS WITH HIV/AIDS COMPONENTS FROM 1996 TO 1999

Project number	Project title	Start date	Requesting agency	Project site	Donor	Project cost (baht)
42-0021	Contraception Survey	06/99	Ministry of Public Health	Bangkok Metropolitan	Programme for Appropriate Technology in Health	Not Costed
40-0031	Empowering Hill Tribes Communities against AIDS	01/97	Ministry of Public Health	Chiang Rai	Programme for Appropriate Technology in Health	1,303,140
36-0098	Health System and Social Security Development	1997	Ministry of Public Health	Bangkok Metropolitan	Sweden	6,036,800
40-0012	Reproductive Health Development and Education for Muslim Adolescents	03/97	Ministry of Public Health	Central Region and Southern Region	United Nations Population Fund	8,668,195
39-0038	HIV/AIDS Ambulatory Care Project	6/12/96	Ministry of Public Health, Department of Communicable Disease Control	Nonthaburi	Australia	77,985,660
41-0006	Project for Model Development of Comprehensive HIV/AIDS Prevention and Care in the Kingdom of Thailand	1/02/98	Ministry of Public Health, Office of Permanent Secretary	Bangkok Metropolitan; Phayao	Japan	Not Costed
42-0026	Strengthening of National Institute of Health Capabilities for Research and Development on AIDS and Emerging Infectious Diseases	1/03/99	Ministry of Public Health, Department of Medical Sciences	Not specified	Japan	Not Costed

Project number	Project title	Start date	Requesting agency	Project site	Donor	Project cost (baht)
41-0088	Community Level Case Management of Infection in Settings with a High Prevalence of HIV/AIDS	11/99	Ministry of Public Health, Department of Communicable Disease Control	Lampang	Programme for Appropriate Technology in Health (USAID)	Not Costed
40-0033	Integrated Reproductive Health Care for Low-Income Urban Women	6/97	Ministry of Public Health, Department of Health	Bangkok Metropolitan	Program for Appropriate Technology in Health (USAID)	2,745,185
41-0089	HIV Disease Burden Study in Thailand	10/98	Ministry of Public Health, Department of Communicable Disease Control	Phitsanulok; Lampang	Programme for Appropriate Technology in Health (USAID)	7,834,679
41-0084	Pilot Project on the Operationalisation of Reproductive Health Services in Phayao Province	08/99	Ministry of Public Health, Department of Health	Phayao	United Nations Population Fund	34,661,611
42-0008	Pilot Project on the Operationalisation of Reproductive Health Services in Patani Province	08/99	Ministry of Public Health, Department of Health	Patani, Muang, Khok Pho, Mai Kaen, Yaring, Yarang	United Nations Population Fund	38,260,147
42-0027	Northern Thailand AIDS Prevention and Care through Community Organisations Project	13/11/98	Raks Thai Foundation	Chang Rai; Chiang Mai; Phayao; Pamphun	Japan	53,920,600
39-0073	A Short ZDV Course to Prevent Perinatal HIV in Thailand	10/96	Ministry of University Affairs, Chiang Mai	Bangkok Metropolitan, Chiang Mai	France	Not Costed
40-0013	The Research Centre for Emerging Viral Diseases	01/97	Ministry of University Affairs, Mahidol University	Bangkok Metropolitan	France	Not Costed
39-0088	AIDS Counselling and Training Center Chiang Kham	06/96	World Concern	Phayao; Chiang Kham	World Concern	3,451,205

Project number	Project title	Start date	Requesting agency	Project site	Donor	Project cost (baht)
42-0022	HIV/AIDS Programming for Thai Schools	05/99	Ministry of Education, Office of Rajabhat Institutes Council	Bangkok Metropolitan, Kanchanaburi, Chantaburi; Phra Nakhon Si Ayutthaya	Programme for Appropriate Technology in Health	664,055
40-0032	Adolescent Health Centre	01/98	Ministry of University Affairs,Prince of Songkhla University	Songkhla; Hat Yai	Programme for Appropriate Technology in Health	616, 262
39-0089	Tribal AIDS Counselling and Training Project	96	World Concern	Chiang Rai, Chiang Saen, Phayao, Chiang Kham	World Concern	6,051,205
40-0081	Health Support Project	97	Southern NGO-COD	Not indicated	Australia	549,400
41-0040	Evaluation and Accreditation of Workplace AIDS Programs	06/98	Thai Business Coalition on AIDS (TBCA)	Bangkok Metropolitan	Australia	1,114,756
41-0041	Youth Theatre for AIDS Awareness Grassroots Micro Media Project	07/98	Makhampom Theatre Group	Bangkok Metropolitan, Phra Nakhon Si Ayutthaya, Phayao, Mae Hong Son	Australia	816, 750
38-0047	HIV/AIDS Prevention Programme in the Industrial Workplace and in Rural Thailand	01/96	Care International	Chiang Rai; Samut Prakan		Japan 2,496,563
40-0053	Living with HIV/AIDS	96	Raks Thai Foundation	Chiang Rai, Chiang Mai, Phayao	Japan	2,343,915
39-0030	HIV Counselling Service Development for Private Hospitals in Thailand	10/96	National Population and Health Dev. Activity of Thailand	All Thailand	United Nations Population Fund	7,686,360
39-0074	HIV/AIDS Prevention and Care for Youths and Adults in Thailand	96	Ministry of University Affairs	Central, Northern and Southern Regions	United Nations Population Fund	532,770,000

Project number	Project title	Start date	Requesting agency	Project site	Donor	Project cost (baht)
39-0077	HIV/AIDS Prevention & Care for Youths and Adults in Thailand	06/96	Ministry of University Affairs	Central and Northern Regions	United Nations Population Fund	17,759,870
*36-0102	Northern Provinces AIDS Prevention and Care Program	1/04/93	Office of Prime Minister, Department of Technical and Economic Co-peration	Chiang Rai, Chiang Mai, Phayao	Australia	82,450,000
*36-0139	Thai-Australia Non-Northern AIDS Project	7/93	Office of Prime Minister, Department of Technical and Economic Co-operation	Other areas of the country	Australia	10,000,000

* Special Australian support projects, which appear to be prerequisites of the ambulatory care project.

APPENDIX 15
KHON KAEN FIELD REPORT

BACKGROUND

The field trip to Khon Kaen in North-East Thailand focused on the potential to transfer the ambulatory model of care and/or to establish a training focus within Thailand in affiliation with the CDC hospital in Khon Kaen.

Meetings were held with members of the North-East Region Infectious Hospital, the director of CDC region 6 and a HIV/AIDS specialist physician from the University of Khon Kaen Hospital. A tour of the hospital including the laboratory was undertaken.

The North-East Region Infectious Hospital was established in 1932 as a leprosarium. It was moved to Nosomboon in 1936 and upgraded in 1994 to a 240-bed hospital.

The hospital is co-located with a colony (at Isarn) of 300 people isolated from their extended families because of discrimination against people recognisable as having had leprosy. The hospital currently has 90 beds staffed.

THE HIV/AIDS SITUATION IN NORTH-EAST THAILAND

The Isarn people are said to be accepting of those with HIV/AIDS in their community. No accurate estimates of rates of infection were available but the mode of transmission is heterosexual in most of those attending the hospital. Farmers and labourers are the most common occupations of patients. Paediatric HIV/AIDS is recognised by staff as difficult to manage, especially with parental death and grandparents carrying the responsibility. Almost all grandparents care for their grandchildren but they cannot supply education or expensive medical care and they are occasionally ostracised from their communities.

NORTH-EAST REGION HOSPITAL

This is a relatively new facility, with two of four buildings open and well designed and ventilated wards. There are accessible hand washing facilities, an outpatients area consisting of three consulting rooms and two separate treatment rooms, an emergency room and an open, partitioned area on the first floor. Another two consulting rooms are attached and there is a new laboratory. The open area is used for HIV/AIDS adults on Tuesdays and children every second Thursday. A Hope Clinic is also held for people living with HIV/AIDS to receive care and mutual support.

NURSING STAFF

There are 44 nurses, seven in the HIV inpatient ward, two in the Hope Clinic and seven in both outpatients and the emergency room. The senior nursing staff are committed, caring, interested and focused on patient care. With the director they are the stable workforce, with other doctors frequently taking up new appointments. Nurses function in outpatients to take simple symptoms histories, make appointments, and direct the waiting patients to doctors, to the pathology building or to radiology. They do not perform, initiate or record results of investigations, procedures or assessments.

MEDICAL STAFF

There are nine doctors at the North-East Region Hospital (two physicians, four general medical doctors, one ophthalmologist, one anaesthetist and one paediatrician). Another paediatrician attends from the University of Khon Kaen every second week.

The medical staff attempt to care for people with symptomatic HIV/AIDS with a syndromic management approach (prolonged cough and fever is treated as TB, abrupt onset is treated as bacterial pneumonia). The lack of CT scan facilities is said to preclude lumbar punctures for definitive diagnosis of cryptococcal meningitis for many patients.

The Thai guidelines for management of HIV/AIDS have to be modified because of the laboratory and financial constraints on therapies. Bactrim is routinely used and some doctors use fluconozole for continued cryptococcal prevention after initial treatment. Tuberculosis is managed by a syndromic approach with free short course therapy but no effective Directly Observed Therapy exists. Most adults have no access to anti-retroviral therapy because of its high cost. Forty children participated in a trial treatment of double ARV therapy with and without chloroquine and they have had follow-up treatment. A proposed access study is believed to be offering places at the hospital. A vaccine study is also being considered in association with the Ministry of Public Health.

COUNSELLORS

There are four counsellors. The most senior is a very experienced nurse counsellor. Two social workers and a health educator are also counsellors. The counselling service provides care to people with HIV/AIDS and leprosy and also to general patients. They see people for pre and post-test counselling, initially in the outpatients department and later in the Hope Clinic. The counsellors provide anonymous tests but most patients at risk of HIV infection seek an open test in the hope of gaining treatment.

A key function of the counselling department is to provide annual training for 10 to 15 people from the district health areas who volunteer to provide HIV/AIDS care and prevention in their communities. So far, 300 people have been trained. The volunteers' work is evaluated about 12 months after training and the evaluation is known as the CCC, the Comprehensive and Continuing Care Program.

The senior counsellor is competent and focused on improving the care for people with HIV/AIDS.

PATIENT FLOW AND REFERRAL SYSTEM

There were 3725 attendances by HIV infected patients at the North-East Region Hospital in 2000. An estimated 282 people used the facility in 2000 and 25 deaths were recorded by the hospital. Most referrals were by word of mouth from the university hospital, which has limited beds available, to people with HIV/AIDS and from district health and community hospital services.

There is no triage system so patients are seen by a nurse for basic observations and information gathering, then they wait to see a doctor. Venipunctures are performed in the pathology building if the patient can walk, otherwise the pathology technician attends the outpatients department. Many people with severe symptoms are admitted for investigation and therapy. On average, there are three lumbar punctures a day.

Patients sent home are cared for by district health services contacted by the patients or their families.

INPATIENT CARE

There is a 30-bed HIV ward with men at one end and women at the other, with children in the middle. There are no separate wards for patients with TB. Thirty percent of inpatients receive intravenous amphotericin for two weeks before discharge followed by eight weeks of therapy with fluconazole. Presumptive therapy is common and secondary prophylaxis not always possible.

TB is estimated to be MDR in 10 per cent of cases. A few cultures from those failing initial therapy are sent to the University of Khon Kaen and results follow about three months later.

INFECTION CONTROL AND OCCUPATIONAL HEALTH

There is no infection control committee but one may be formed soon. It is the responsibility of individual staff to ensure HBV vaccination and annual chest X-rays are done. Tuberculin skin testing is not performed due to the high number of positive results.

One nurse who was managed by the head of nursing and a doctor has recorded sharps injuries from HIV infected people. No formal system is in place.

LABORATORY

The laboratory is in a relatively new building and functions in venipuncture, basic haematology, receiving blood for cross match (performed at the general hospital) and biochemistry. Microscopy for AFBs and simple culture of bacteria is attempted. CD4 counts are performed twice weekly with standards used in large runs.

The general cleanliness, the expertise of staff and the emphasis on opportunistic infection diagnosis could be improved.

There is substantial expertise in the laboratory in diagnosis of leprosy and training is provided to people visiting the laboratory.

NUTRITION

There are no formal HIV/AIDS nutrition services. Nurses and dietetics officers help with general advice and provide supplemental herb drinks for children in the Hope Clinic.

DISCRIMINATION AND CONFIDENTIALITY

The staff are caring but have no perception of confidentiality after diagnosis of HIV. All patients are cared for in the open Hope Clinic.

The isolation approach to lepromatous leprosy has to some extent permeated the approach to people with HIV/AIDS. Home and district care are said to be provided in the Isarn community and may be preferred by many people with HIV/AIDS.

TEACHING

There are excellent facilities for conferences or education. Biannual visits for three hours by nursing students and occasional visits by medical students utilise the facilities. The community volunteer program is undertaken regularly.

UNIVERSITY OF KHON KAEN HOSPITAL

This is a 500-bed academic institution with a HIV unit and an involvement with HIVNAT and other Thai and international research centres. Staff at the hospital have little interest in or knowledge of the Bamras project. Care is in inpatient and outpatient areas up to the limits set by bed allocation and staff numbers. ARV therapy is accessible to some extent in trials conducted by international organisations or by local submissions to the Ministry of Public Health, HIVNAT and others. Training in counselling is integrated into the regional psychiatric service. Nurses are the practitioners most interested in integrated care, counselling and ambulatory care. The university hospital has informal links at a personal level with North-East Region Hospital and would be interested in co-operation with that hospital contingent on administrative approval and funding.

CDC REGION 6

Staff have very little knowledge about the Bamras model of HIV/AIDS care and the Project. The concept was appealing to them but a number of limitations and other factors seemed important. These included good links and information sharing, substantial staff capacity building and recognition of the Thai working conditions, especially for doctors, as well as appropriate Thai approaches to planning and decision making.

Staff supported the concept of ambulant care training but felt that placements of medical and other staff to centres of excellence in Thailand would need high level support, funding to compensate monthly public doctor allowances of 10,000 baht (A$500) and at least three months' training.

SUMMARY

The field trip focused on the potential to transfer the ambulatory model of care and/or to establish a training focus within Thailand in affiliation with the CDC hospital at Khon Kaen.

Meetings were held with members of the North-East Region Infectious Hospital, the director of CDC region 6 and a HIV/AIDS specialist physician from the University of Khon Kaen Hospital. The visit included a tour of the hospital and its laboratory.

The trip involved visits to the regional office, the North East Region Hospital and the University of Khon Kaen Hospital. None of these had much knowledge of the Bamras model of HIV/AIDS care or the Project. Although the concept was appealing there were a number of limitations and factors to consider. These included good links and information sharing, substantial staff capacity building and recognition of the Thai working conditions, especially of doctors, as well as appropriate Thai approaches to planning and decision making.

In the local region there is expertise and some degree of support from the CDC and the academic HIV/AIDS unit at the University of Khon Kaen Hospital.

There is local support at middle management level for an ambulant care model at North-East Region Hospital in Khon Kaen. The North-East Region Hospital has a moderate HIV/AIDS patient load of about 300 adult and paediatric patients. Substantial upgrading of the skills and approaches in laboratory and clinical management of opportunistic infections is a prerequisite to replicating the Bamras model. It is likely that it is possible to replicate only some elements such as destigmatisation, training, and counselling.

An assessment of high-level support and a detailed series of discussions with the key Thai healthcare providers and potential collaborating organisations is needed to further delineate needs, policies and optimal implementation models. The appropriateness and practicality of training placements at Bamras to use the expertise and make the program consistent with appropriate Thai HIV/AIDS patient care needs and guidelines should be pursued.

It seems that without considerable effort and major resources Khon Kaen would be unlikely to become a regional training centre.

3 May 2001

APPENDIX 16
HO CHI MINH CITY, VIETNAM, FIELD REPORT

BACKGROUND

The field trip to Ho Chi Minh City in Vietnam focused on assessing the situation and approach of the Ho Chi Minh City health care system and key providers to the ambulatory model of care for HIV/AIDS. The aim was to comment on the ability to replicate the Bamras model within Vietnamese HIV/AIDS programs.

Members of the Evaluation Team met with two of the three vice directors of the Ho Chi Minh City Health Department, AIDS Committee members and personnel from two identified hospitals, the Dermato-Venereology Hospital (DVH) and the Centre for Tropical Diseases. The trip included a tour of the DVH and its laboratory.

HIV/AIDS SITUATION IN VIETNAM

There are substantial limitations on the surveillance systems for HIV/AIDS in Vietnam, which are dependent on passive reporting from hospitals and intermittent cross sectional prevalence studies in high risk groups. The first HIV infection was identified in 1990 and the first person with AIDS was diagnosed in 1993. It is estimated that the prevalence of HIV/AIDS in adults is 0.24 per cent with rapid increases in infections and diagnoses occurring over the past two years. There were 13,853 cases of HIV infection reported in 2000. There are 7000 symptomatic individuals with HIV/AIDS in Vietnam and most of them are in Ho Chi Minh City. The groups at highest risk of infection are injecting drug users and commercial sex workers. In Ho Chi Minh City in 2000, 65.1per cent of about 2000 injecting drug users in Government Rehabilitation Centres were infected with HIV and 20.8 per cent of about 1200 commercial sex workers in the centres were seropositive. The HIV prevalence in these surveys had doubled between 1998 and 1999 and again between 1999 and 2000. Predictions have been made that there will be 250,000 HIV positive people in Vietnam by 2005.

HEALTHCARE SYSTEM IN VIETNAM

The health system is based on a hierarchy of service provision starting with commune health services that provide maternal and child health, mental health and care for TB, diarrhoea and local HIV/AIDS management. On the next level of services are the 26 district hospitals and then the 24 City of Ho Chi Minh general and specialist hospitals. The Dermato-Venereology Hospital and the Centre for Tropical Diseases (CTD) are specialist Ho Chi Minh City hospitals. These hospitals provide care based on the primary complaint of the patient e.g. TB is cared for at the Chest and TB Hospital, sexually transmitted or dermatological disorders at the DVH and fevers and meningitis at the CTD. The system is largely 'user pays' e.g. most patients are charged 25,000 dong for HIV tests.

INTERACTIONS WITH AND KNOWLEDGE OF BAMRAS AND THE PROJECT

There have been a number of interactions between Albion Street Centre personnel and the key informants on the Project. The vice director for treatment including HIV/AIDS of Ho Chi Minh City, the project co-ordinator of the AIDS Committee of Ho Chi Minh City and the vice chairman ID CTD Hospital had met with ASC staff and largely endorsed a similar project in Ho Chi Minh City. They have participated in a workshop organised by the ASC about Vietnam's HIV/AIDS needs.

The vice chairman ID CTD had attended a WHO training program at Bamras and had seen the ambulatory care service and expressed admiration for the work performed there. Neither he nor any nursing or other staff had participated in ambulatory care project training.

DERMATO-VENEREOLOGY HOSPITAL

This is a specialist sexually transmitted infections and dermatology hospital which cares for HIV/AIDS patients with skin diseases. It has responsibility for treatment and outreach to the rehabilitation centres for commercial sex workers and injecting drug users where health clinics are held weekly. It is also responsible for cross sectional HIV seroprevalence studies twice a year in the government facilities. There are three government facilities for injecting drug users, each caring for about 1000 people and one facility for commercial sex workers of about 1600 people.

DVH is a 200-bed hospital presently functioning with 110 to 120 inpatient beds consisting of 50 male, 50 female and five to 10 for children. In line with the Vietnamese healthcare system based on providing care focused on the patient's primary illness or complaint, DVH cares for patients with sexually transmitted infections, diabetic skin disorders, psoriasis, shingles and drug eruptions. Accordingly, most HIV/AIDS patients to the hospital present with sexually transmitted infections or shingles.

PATIENT FLOW IN OUTPATIENTS AND THE REFERRAL SYSTEM

There is a very busy outpatients department seeing about 1000 patients a day. Each of the 10 doctors sees about 100 patients a day. Four doctors also run a 4pm to 6 pm private service for 30 to 50 patients each. The system is divided physically and by payment categories into two parts - civil servants who receive free care and others who pay 10,000 dong (A$1.30) for each visit. Patients are queued in narrow corridors waiting to see a doctor. A gynaecology service is available for culture in women and smears are performed in consulting rooms for men. The on-site microscopy laboratory has three doctors to read smears. All symptomatic or suspected cases of sexually transmitted infections have a VDRL and HIV by EIA (most must pay). The doctor counsels the patient about why they need the test. Four days later patients return and a doctor sees HIV-negative patients. HIV-positive patients have counselling in a separate room with a doctor and nurse. Unless there is a new skin disorder they are lost to follow-up.

INPATIENT SERVICES

Patients are housed by gender and cared for by six doctors and 10 nurses in each ward and family members who bring food. Alternatively, patients buy food from the cafeteria or nearby stalls.

The common conditions among inpatient are psoriasis, leprosy, SLE, epidermal necrolysis and Varicella Zoster Virus (VZV). VZV is the condition seen most frequently in inpatients with HIV/AIDS.

There were no women with HIV/AIDS in the women's ward at the time of the visit and only five had been admitted from January to May 2001. Beyond inpatients, patients may be followed up at community care clinics. Local communes provide social health services and deal with HIV/AIDS, mental health, sexually transmitted infections and TB. Patients are cared for by a doctor, a doctor assistant, a midwife, two or three nurses and peer support organisations.

ATTITUDE OF STAFF TO INDIVIDUALS WITH HIV/AIDS

Most DVH staff are unafraid of HIV/AIDS. Leprosy patients are not isolated and staff do not feel HIV/AIDS patients should be excluded. The attitude to 'social evils' is as in the rest of the community where residents say commercial sex workers and injecting drug users 'don't feel anything'. It was stated there was community acceptance of HIV/AIDS patients but a number of such people are unable to live at home. Institutions for homeless and terminally ill people are planned.

LABORATORY

The laboratory is in a single air-conditioned room with a separate office. Serology performed is EIA (repeats positive on two other EIA test kits). About 150 tests are performed each day and the laboratory services hospitals and rehabilitation centres. There is no established quality control program and needle stick injuries are not infrequent occurrences.

TRAINING

DVH is a city and a provincial hospital and has a key role in training. All new venereologists are taught by DVH staff. DVH also oversees the southern provinces' sexually transmitted infection/dermatology treatment and care, as well as that of Ho Chi Minh City. All medical students from Ho Chi Minh University and the city's second university, as well as many nursing students, trainee venereologists and assistant doctors are trained at DVH.

FUTURE DIRECTIONS AND PLANS

The medical staff emphasise the need for 1200 outpatient beds (ambulatory care) because of pressure from various areas. There are escalating patient numbers, patients returning frequently for wart treatment and diabetic skin disease and increases in TB skin problems. Patients with HIV/AIDS also present with shingles which is mostly treated with antibiotics and antiseptics.

Key requirements are seen to be adapting the Thai experience to fit local needs, particularly training to develop staff expertise in counselling.

CENTRE FOR TROPICAL DISEASES

The Centre for Tropical Diseases (CTD) is a 500-bed hospital treating all infections except pulmonary TB. It was designated as the treatment service for HIV/AIDS in the mid-1990s. It is also a designated centre for care of infectious and tropical diseases. Other diseases commonly seen are infectious diarrhoea, dengue, malaria, tetanus and cholera.

The CTD cared for the first patient with symptomatic HIV/AIDS in 1991. By 2001 about 2000 HIV patients had been cared for, mostly symptomatic, 85 per cent with AIDS. In 2000, 649 patients attended the centre.

At CTD, HIV/AIDS is the fourth most common cause of morbidity after infectious diarrhoea, dengue haemorrhagic fever and malaria. In the hierarchy of mortality it is second or third (10 to 12 per cent of admitted HIV/AIDS patients die). The HIV/AIDS patients occupy five to 10 beds in the 55-bed section for diarrhoea, hepatitis and HIV/AIDS.

STAFF PROFILE

The HIV/hepatitis/diarrhoea unit is staffed by eight doctors, six assistant doctors/senior nurses and 24 nurse assistants. Doctors play a prominent role in all patient interactions and head all services and assistant doctors play a supportive role to the doctor. Assistant doctors/senior nurses have undertaken one year of basic training, three years of general training and four years of specialist training.

ATTITUDE OF STAFF TO INDIVIDUALS WITH HIV/AIDS

Although initially fearful, after 11 years of caring for people with HIV/AIDS, most staff are no longer concerned but many, especially the doctors, find counselling difficult because it is not perceived as their role. This is particularly so with patients with difficult or socially proscribed behaviours shown by injecting drug users or commercial sex workers.

INPATIENT SERVICES

There are 10 beds for HIV/AIDS patients and 55 beds for diarrhoea and hepatitis patients. No definite diagnosis is made of many inpatients with HIV/AIDS due to lack of laboratory and investigative facilities. Among those patients where a diagnosis is made, the hierarchy is TB, disseminated fungal disease (candidiasis, cryptococcus, penicillium, histoplasmosis), bacterial infections including disseminated mycobacterium avium complex, non-typhoidal salmonellosis and other less common conditions. Cryptococcal disease is diagnosed on lumbar puncture (if a patient has meningismus or CNS signs) in 10 to 15 patients a year.

LABORATORY

There is a basic laboratory that provides microbiology, biochemistry, haematology and serology (EIA for HIV). It has not been designated a reference laboratory for HIV/AIDS.

OUTPATIENT SYSTEM

Outpatients for HIV/AIDS patients was established in November 1999 on Tuesdays and Thursdays, but since March 2001 it has increased to daily outpatient clinics. This has provided the opportunity to manage patients with less serious conditions and to follow-up inpatients after discharge. Up to 25 patients are seen each session. It is also a voluntary HIV testing site and provides patients and their families with information about HIV/AIDS management. The outpatients clinic also provides management of needle stick or other blood exposures throughout the city, offering anti-retroviral prophylaxis.

RELATIONSHIPS WITH NGOS AND OTHERS

CSF, MSF and Care International provide some community care and Catholic Relief intends to build a hospice. UCSF has collaborated on research into opportunistic infections including PCP. CDC Atlanta has collaborated on parasitic diseases and Penicillium marnefi investigations.

FUTURE DIRECTIONS AND PLANS

The medical staff see escalating numbers of patients with limited facilities, at least at inpatients. The ambulant care model is seen as the obvious and only option for CTD to manage the demands of people living with HIV/AIDS. Better networks and links with the district and commune level of care will need to be developed.

LESSONS LEARNED AND RECOMMENDATIONS

There is a moderate HIV/AIDS patient load in Ho Chi Minh City that is increasing rapidly in the face of limited health resources.

There is substantial support in the hospitals for an ambulant care model at the DVH and the CTD hospitals. In the Health Department, two of three deputy directors have some understanding of the Bamras system and the model in general terms and are willing to investigate it further. A visit to Bamras to review and discuss the Ambulatory Care Project and Bamras' system would be beneficial to the key decision makers.

The public health division has a clear policy and plan, said to be consistent with national AIDS policies. The first priority is for HIV prevention by harm minimisation and the second is for an integrated system of service provision including all levels of Vietnamese health providers (specialist city hospitals, district hospitals and the commune health care system).

Substantial upgrading of the skills and approaches, particularly in the laboratories in relation to the diagnosis of opportunistic infections, quality control and occupational health and safety is a prerequisite to replicating the Bamras model.

A proposed pilot program (involving one specialist hospital, one district hospital and one community health commune) should be assessed. This would require detailed discussions with the key Vietnamese healthcare providers, policy and planning divisions and potential collaborating organisations to further delineate needs, policies and optimal implementation models.

The appropriateness and practicality of training placements at Bamras to use the Thai expertise and make the program consistent with appropriate regional HIV/AIDS patient care needs and guidelines should be pursued.

The ambulatory care model would need to be adapted to the Vietnamese needs and priorities in relation to integration across multiple hospitals by specific diseases and to take account of the community health focus of the Vietnamese health care system.

May 7–8, 2001

APPENDIX 17
LAOS FIELD REPORT

BACKGROUND OF HIV/AIDS IN LAOS

Prevalence of HIV/AIDS in the population of Laos is reported to be about 0.1 per cent. In the province of Vientiane, of 61,130 people tested until September 2000, 1 per cent were HIV-positive. In the province of Savannakhet, 4 per cent were HIV-positive. (The method of sampling is unknown, but it probably involved patients presenting to hospital). The 2001 HIV surveillance survey has been completed among five groups, but the results have not yet been analysed. Groups surveyed included female factory workers, truck drivers, police, Army personnel and migrant seasonal workers in three border provinces. The survey included blood and urine tests and questions about behaviour, sexual activity and prevention practices. The HIV/AIDS situation is not really known because there is no systematic collection of data and many people living with HIV/AIDS tend to be at home unaware of their infection.

CURRENT PRACTICE IN HIV/AIDS PREVENTION AND CARE

The policy on HIV/AIDS has focused on prevention and is only now addressing care and treatment support because the country is seeing an increasing number of patients with HIV/AIDS (reported by the director of NCCA). There are a few active organisations working in HIV/AIDS e.g. CARE International (Dr. Ounkham Souksavanh), Australian Red Cross (Ted Nierres), and Norwegian Church Aid (Jens Johan Laugen). Most of the projects have concentrated on HIV prevention among youth groups and some have centred on care and support among people living with HIV/AIDS near the border with Thailand.

AUSTRALIAN RED CROSS IN LAOS

A prevention program has been conducted in seven provinces with youths (15 to 25-year-olds), most of whom work in farming for seven months of the year. They spend the rest of the year working near the Thai border. Some are out of school teenagers. Several group discussions are held monthly and these have been very successful in changing attitudes and behaviours toward sex, HIV/AIDS and gender relationships.

Case study: The program visited a family with the youngest infected with HIV/AIDS through the mother. A volunteer provides informal counselling and psychological support to the family. The patient with HIV/AIDS is also visited by volunteer health care workers from Dr Kampang's team in Savannakhet. From the experience of the Australian Red Cross, stigmatisation has rarely been seen because village people are more likely to take care of patients at home, with HIV/AIDS or other diseases.

CARE INTERNATIONAL

Three projects are being conducted in five provinces in the north, including Savannakhet. Two main objectives are prevention of sexually transmitted diseases and HIV and treatment of sexually transmitted diseases among four target groups (housewives, husbands, out of school youth and beer bar workers). The implemented activities are multisectoral and include the military, police and health. Focus group discussions are aimed at improving understanding of sexually transmitted diseases and how people can protect themselves through life skill training and education. The program has demonstrated that it is raising awareness. Two staff are presently working in each province.

In addition, a pilot study on a sexually transmitted diseases case management model following WHO guidelines has been conducted in some areas. The program provides training of medical staff in hospitals and pharmacists in the market to utilise appropriate treatment for the diseases. The program has been successful. It has been evaluated by examining the increase in the number of people attending the hospital to seek treatment and measuring changes in behaviours.

NORWEGIAN CHURCH AID

This is an extension of a project first undertaken in Thailand. The project was started in Chiang Mai in 1993 and has expanded to Laos, Vietnam, and Cambodia. The prevention program has been conducted in five border districts of Savannakhet and Bokeo provinces in the north, which are known for their high labour migration rate. The care and counselling training started in 1995. The care and counselling service has been established in one district hospital after one doctor in Savannakhet attended the course and field trip in northern Thailand in 1998. She and her team of volunteer staff visit people in the community to create understanding and tolerance. Health check-ups for community members, particularly for families of people living with HIV/AIDS are provided free. Ten people living with HIV/AIDS and their families attend the counselling unit to share experiences once a month. All the doctor's activities are co-ordinated with the provincial hospital. Patients have received a herbal medicine produced locally to assist the immune system. Although the herbal medicine has not yet been proven effective, it is widely used and is also supported by the government.

MAHOSOT HOSPITAL

Mahosot is the biggest hospital in Vientiane and Laos, with 450 beds. There are 157 medical staff and about 260 nursing staff at the hospital. It provides care and treatment for patients with infectious and non-infectious diseases. The Sumsuo ward (28 beds) is where patients with infectious diseases (diarrhoea, malaria, meningitis, and pneumonia) are admitted. While not tested for HIV/AIDS, it is suspected that many of those admitted are HIV-positive. Two doctors and seven nurses have been allocated to this ward. Inspection showed that it had a few patients with HIV/AIDS during the month but no patients with HIV/AIDS at the time it was visited.

Tuberculosis patients are separated in the TB centre at the hospital and treated without problems due to the availability of drugs.

AIDS specialisation in medical staff: There is none as there are too few patients.

HIV testing capacity: There is no facility to test for HIV. Although the test is sometimes available, the result of testing must be confirmed by NCCA and it takes about 48 hour to be known. Forty HIV/AIDS patients have been identified since 1997 and unknown HIV cases may be missing.

Outpatient department: At the outpatient clinic every patient requires a hospital card before having a routine check of blood pressure and temperature by the front desk nurse. The doctors usually take patient histories and do physical examinations. Although the number of patients attending outpatients has not been explored, a key informant said that patients are less likely to visit the hospital because of the perceived low standard of care.

Payment: All payment is taken at the end of checking, except for admitted patients who pay daily. For the poor, assistance is provided in some circumstances, for example, for the minority groups, long-stay patients and village people who have an official letter about inability to pay from the village.

Infection control: When patients present with symptoms at the Sumsuo ward, the universal precaution technique is often used. If the patient does not recover, HIV/AIDS is suspected, and a history would be taken to explore the risk of HIV/AIDS. The patient would also be asked to have a blood test for confirmation. Staff suspect that those who know they are infected will keep out of hospital. Those who do not know will have a test and will be provided with pre and post-test counselling. By observation, infection control procedures in the ward are of a low standard in terms of maintaining a safe environment.

Nursing staff: Nurses generally do not have bachelor degrees and capacity is low. An expressed view was that you could not train nurse practitioners, nor expect nurses to take on some of the more specialised tasks being undertaken by nurses at Bamras. Nurses did not have training in counselling or nutrition.

Health education: The hospital has no health education focus or patient information brochures produced by the hospital. Any health education, if given, is general.

Stigmatisation: That care is being provided openly in the community suggests that there is little (no) stigma attached

to people with AIDS. Conversely, reports from hospital staff that patients who know they are HIV-positive will not come to the hospital suggests that there is a stigma attached to people with the condition, by hospital staff. This needs confirmation.

Community links: Because it is in the capital and has more specialist doctors, the hospital provides some training courses (in Mahosot) to doctors working in the district hospitals. These are scheduled when requested. It also sends doctors to train at other hospitals at the community level. The topics of training are various, such as surgery techniques, sexually transmitted infections or X-rays.

University link: The National University has a medical school. Some medical students do their last year training in the hospital.

Impact of training at Bamras: Three people visited Bamras and two of them attended the HIV course. They reported back to the hospital and NCCA. At an in-service workshop six months later, one made a presentation on HIV/AIDS. NCCA participants said hospital staff had a better understanding of HIV/AIDS.

Expressed views on Bamras model: Staff said they need to improve hospital systems, especially the capacity of doctors and nurses caring for patients with HIV/AIDS. They want more space for counselling, but do not need extra space because they do not have many patients.

There were mixed views on where training should be undertaken. Some said Thailand was most appropriate and others said Thailand and Australia. There was more support for the first view.

With respect to training in the project, the view was expressed that staff wanted practical training in teams that included nurses and doctors. The training should be undertaken over about four to six weeks.

There was said to be a need for external support to start the project at the central hospital to ensure the implementation (view from Care International).

LESSON LEARNED AND RECOMMENDATION

HIV/AIDS cases seem to be taken care of in the community, using community based facilities as an important resource of care and support. This model is more appropriate for the culture.

RECOMMENDATIONS FOR LAOS

Prerequisites for the Bamras model are: high HIV/AIDS patient load and high population prevalence, a certain standard of care established in the hospital, a motivated leader in the hospital and an indication that the hospital is trying to improve its treatment and care practices.

Members of the Evaulation Team would question that Mahosot is the correct place to start, based on its inability to meet the prerequisites.

Wherever implemented, an activity must include community involvement in treatment and care, therefore the Bamras model would have to be modified.

Savannakhet may be a more appropriate location for implementation.

Further detailed study is required at both locations.

APPENDIX 18
CAMBODIA FIELD REPORT

BACKGROUND OF HIV/AIDS IN CAMBODIA

Cambodia is a small country in the centre of the Indo-China peninsula. The population of 11.4 million (1998) lives in 2.2 million households in 13,406 villages in 24 provinces. The capital, Phnom Penh, has a population of 570,000 and there are only three other towns with more than 100,000 people. They are Battambang, Sihanoukville and Siem Reap.

While 84 per cent of the population is rural, population density varies from less than 12 people per square kilometre to more than 100 per square kilometre, and 3448 per square kilometre in Phnom Penh.

Sero-surveillance surveys have been conducted in the country since 1995, and behavioural surveys since 1997. From these surveys a picture of the HIV/AIDS epidemic is emerging.

In eight out of 20 Cambodian provinces, more than 40 per cent of brothel-based commercial sex workers are HIV-positive. Only two of the provinces have lower than 20 per cent HIV prevalence among these women. There are estimated to be between 7000 and 10,000 brothel-based sex workers in the country and possibly a further 50,000 to 100,000 indirect sex workers, among whom prevalence rates vary from 6 to 48 per cent. These numbers represent a large pool of infection and given the high levels of brothel use among men (more than 33 per cent of soldiers, policemen and moto-drivers reporting use of commercial sex in the past month - down from 58 per cent in 1997), there has been an explosive spread of HIV/AIDS. Just how far the infections have spread, however, is more difficult to assess.

In 1999, about 5 per cent of men who might be classified as high risk (policemen and soldiers) were estimated to be HIV-positive. In six out of the 20 provinces for which the Team members have data, more than 6 per cent of these men are said to be HIV-positive. Only in five provinces are fewer than 2 per cent HIV-positive. The 1999 household survey findings suggest that it is possible that rates among these men are representative of rates among all men.

Among antenatal women the figures are equally varied. Seven of the 20 provinces have prevalence rates among antenatal women of more than 3 per cent, with three more than 4 per cent and another seven more than 1.5 per cent. A household survey of the adult population in five provinces found prevalence rates as high as 2.3 per cent in women and 3.3 per cent in men. Of hospital in-patients, 11 per cent and 8 per cent of TB patients were found to be HIV-positive.

These data suggest that more than 165,000 people in Cambodia were infected with HIV in 1999. This is more than 3 per cent of the adult population aged 15 to 49 years. By 2000, projections suggest that 250,000 people will be infected. It is estimated that more than 17,000 young people have died from HIV infection and more than 4000 are living with AIDS. These projections estimate that 7000 children under 10 have already been orphaned by the epidemic. By the year 2003, an estimated 74,000 adults will have died from HIV with almost 19,000 dying that year alone. It is also estimated that by 2003, 16,700 children will have died from AIDS and 48,000 children under 10 will have lost both parents.

It is clear from the data that considerably increased numbers of people are going to become ill and die early as a result of HIV/AIDS and infections are going to spread more widely in the coming years.

CURRENT PRACTICE IN HIV/AIDS PREVENTION AND CARE

The policy on HIV/AIDS in Cambodia has focused on prevention and is only now addressing care and treatment support because the country is seeing an increasing number of patients with HIV/AIDS (reported by the Director of NCHADS). There are some organisations working in HIV/AIDS e.g. Central Hope, MSF. Much care is given by families and by KHANA, an association of non-government organisations.

CURRENT STANDARDS OF CARE

According to the central authorities, there are two types of care: institutional and home-based, with most care home-based. Discrimination has been a major problem but is decreasing. Theoretically, TB treatment including directly observed therapy is free, however the financial situation in Cambodia is such that other people advise that even when the medication is free at one point in the health system, it is very unlikely that it will still be free at the point of delivery.

There is very poor access to even relatively basic treatments for diarrhoea or opportunistic infections. Anti-retroviral drugs have begun appearing on the open market, raising the spectre of early and inevitable drug resistance. MSF is supporting 350 patients to receive anti-retroviral therapy.

There is said to be considerable interest in HIV at the so-called 'Russian hospital' but Evaluation Team members were unable to visit it.

There are several voluntary testing and counselling centres, two in Phnom Penh and one in each of four provinces. There is said to be pre and post-test counselling but confidentiality remains a problem. Most testing is based on two tests (ELIZA or RAPID tests).

Health education material is available, although limited, including material from the IEC unit in NCHADS consisting of books, radio information and pamphlets. There is no treatment and care information and only a little for home based care. Most information is about prevention. There is also a National Institute of Public Health which does research.

QUALITY OF CARE

There is general acceptance that the standards of health staff are quite low. Nurses are paid about US$12 (A$24) a month so are poorly motivated and have to earn more money for survival elsewhere. Some pilot studies for lifting incomes are being done but these are at best likely to be only a partial solution. This is complicated by the complex relationships between doctors and nurses who remain co-dependent for extra income. Generally, nurses have little say in patient care.

There is no hospital accreditation and there is a significant need for infection control.

TB is diagnosed on smear and chest X-rays but the quality of both is uncertain. There is likely to be a significant increase in TB in the near future.

KHANA, a collaboration of home-based care organisations, has limited capacity to undertake further training of its own staff. Most of the health workers provide basic but useful care, referring when appropriate, however their limited knowledge and skills make even a referral decision difficult.

CO-ORDINATION OF AGENCIES

After 1991 there were 120 NGO agencies, plus donor agencies, leading to 80 NGOs signing a Memorandum of Understanding with the Ministry of Health. At this time Cambodia set up co-ordinating mechanisms at the national and provincial level. This co-ordination needs to be strengthened. If an organisation wanted to start a new HIV/AIDS project, it would go to the NCHADS.

CENTRAL HOPE

This hospital aims to be a centre of excellence and, for its patients, the standard is excellent. The hospital has 10 medical and 10 surgical beds, and sees outpatients on a 'raffle' basis. Central Hope concentrates on training. The service that Central Hope delivers is excellent but it is probably not sufficiently flexible to deliver the volume of treatment that HIV/AIDS will require.

MILITARY HOSPITAL

The Military Hospital has about 800 beds and 900 patients with an average length of stay of two months, due to the lack of alternative accommodation for the military. There are 40 TB beds for about 90 patients. The hospital includes 20 beds for the terminal care of people with HIV/AIDS. The three doctors working in HIV/AIDS and the rest of the staff have not received more than a basic introduction to HIV/AIDS.

GENERAL COMMENTS

People in Cambodia have little understanding of modern health care and are consumed with intravenous infusions and antibiotics. People with limited resources will save their money to buy a drip from the pharmacy. On television they are told: 'I have been working very hard today, I need two drops before dinner.' There is a need for some basic changes in attitudes, even at the top levels of society.

The private sector is expanding, uncontrolled and unregulated, and the public sector is declining.

There is need for significant leadership in HIV/AIDS. Staff are generally extremely bright and knowledgeable, however without political leadership and appropriate resources the recent progress in decreasing the incidence of HIV/AIDS will be overshadowed by the burgeoning problem in treatment and care.

LESSON LEARNED AND RECOMMENDATION

HIV/AIDS cases seem to be handled in the community, using community-based facilities as an important resource of care and support. This model is appropriate for the culture and for the current resources available.

Prerequisites for the Bamras model include: high HIV/AIDS patient load and high population prevalence, a certain standard of care established in the hospital, a motivated leader in the hospital and an indication that the hospital is trying to improve its treatment and care practices. Most of these characteristics are not available at this time.

RECOMMENDATIONS FOR CAMBODIA

Any program must include community involvement in treatment and care. The Bamras model would have to be modified.

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HIV/AIDS Treatment and Care

Evaluation of the Thailand–Australia HIV/AIDS Ambulatory Care Project

The primary goal of the Thailand – Australia HIV/AIDS Ambulatory Care Project was to establish a fully integrated ambulatory care model at the Bamrasnaradura Hospital, in Bangkok, for the delivery of optimal care to patients with HIV/AIDS and the support of families and carers through the strengthening of health care worker training, organisational support and infrastructure development.

An external evaluation of the Project was requested by AusAID to coincide with the final stages of the Project. This is the report of the Evaluation Team.