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Impact evaluation of the Thailand-Australia HIV/AIDS Ambulatory Care Project

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COVER PHOTO: *Thai Dancer, World AIDS Day.*
PHOTO: *David Plummer.*

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Acronyms and Glossary

ACU	Ambulatory Care Unit	Bird Flu	Avian influenza
AIDS	Acquired Immune Deficiency Syndrome – the complications that arise once HIV severely compromises the immune system	CBO	Community based organization
ARV	Antiretroviral medications	CCC	Thai Comprehensive Community Care strategy
ART	Antiretroviral therapy	CD4 / CD8	Classes of white blood cells (lymphocytes) affected by AIDS
ARP	Antiretroviral program	CQI	Continuous quality improvement
ASC	Albion Street Centre, Sydney, Australia	DTEC	Department of Technical and Economic Cooperation
ATC	Access to CareA Thai Ministry of Public Health sponsored ARV program	ER	Emergency room
AusAID	Australian Agency for International Development	FHI	Family Health International
AVs	Audiovisual aids	HCW	Health care worker
BI	Bamrasnaradura Institute, formerly the Bamrasnaradura Infectious Diseases Hospital (BIDH) sometimes referred to as ‘Bamras’.	HA	Hospital accreditation
		HIV	Human Immunodeficiency Virus
		IDU	People who use injectable drugs / injecting drug users
		IEC	Information, education and communication
		IPD	Inpatient department

ISO 9001:2000	International Standards Organization standards for management (version promulgated in the year 2000).	STI	Sexually transmissible infections
IT	Information Technology	TAACP	Thailand-Australia HIV/AIDS Ambulatory Care Project
MDRTB	Multi-drug resistant tuberculosis	ToT	Training of trainers
MoPH	Thai Ministry of Public Health	USAID	United States Agency for International Development
MOU	Memorandum of Understanding	WHO	World Health Organization
MSF	Médecins Sans Frontières / Doctors without borders	WHO “3 by 5” initiative	‘Treat 3 million by 2005’ Initiative (WHO). A WHO initiative to promote access to HIV antivirals by providing treatment for 3 million people by the end of 2005.
NAPHA	National Access to Antiretroviral Programs for people with HIV/AIDS		
NGO	Non-government organization		
OPD	Outpatient department		
PDD	Project Design Document		
PT	Project Evaluation Team		
PLWHA	People living with HIV/AIDS		
PPTC	Pre and post test counselling		
PMTCT	Prevention of mother to child transmission		
QC	Quality control		
QA	Quality assurance		
QAG	Quality Assurance Group		
QI	Quality improvement		
RTC	Regional Training Centre		
SARS	Severe acute respiratory syndrome		
SOPs	Standard operating procedures		
SSPS	Statistical Package for the Social Sciences		

Executive Summary – English

The Thailand-Australia HIV/AIDS Ambulatory Care Project (TAACP) was implemented between 1997 and 2001. As a response to the heavy burden that the HIV/AIDS epidemic imposed on Thailand, the aim of the project was to assist Thailand's premiere infectious diseases hospital, the Bamrasnaradura Hospital, to develop its HIV/AIDS services and to provide education and training for clinical staff at the Hospital and beyond. Towards the completion of the project an evaluation was conducted which reported on the immediate outcomes. (Plant, Mijch, Malau and Songwathana 2002). The purpose of the present study was to revisit the Bamrasnaradura Institute¹ four (4) years after the project was completed to assess whether the project had delivered discernable long term benefits for the Thai people.

The following points summarize the findings of that study:

1. **The status of the ambulatory care model.** The ambulatory care model developed by the TAACP between 1997 and 2001 continues to operate successfully and to provide significant benefits. In the Bamrasnaradura Institute itself, the core elements of the project remain intact and are functioning well, albeit with adaptations made necessary by a changing epidemic. The services currently provided under the auspices of the Bamrasnaradura ambulatory care system are both multidisciplinary and client-oriented. There are, however, limited numbers of clinical staff, many of whom have a high workload, particularly as their roles are expanded to include training and research. There is a risk, as the Regional Training Centre expands, that

¹ As part of Government reforms under Department of Diseases Control, Ministry of Public Health, the Hospital's vision and mission were re-written in 2002 with a greater emphasis on research and training. To reflect these changes the Bamrasnaradura Infectious Diseases Hospital was renamed the Bamrasnaradura Institute.

the capacity of clinical staff to teach will be limited by the pressure to meet clinical obligations. There is also some evidence that certain training activities are becoming professionalized, at the expense of maintaining input from people with HIV. This latter trend is well recognized in professionalized settings and is not confined to the Bamrasnaradura Institute, or to Thailand. Outside of the Institute there is clear evidence that elements of the Bamrasnaradura ambulatory care model are being deployed by regional and community health services. Ministry of Public Health officials reported that the TAACP has been used as a model for policy development, most notably in the Thai Comprehensive Community Care (CCC) policy initiative.

2. **The status of the clinical training program.** The Bamrasnaradura clinical training program continues to deliver quality training to clinicians at the Institute, elsewhere in Thailand and for workers from the region. Many of these programs were developed directly as a result of the TAACP, although the course content has been updated and revised after the project concluded. These modifications have been in response to health care sector reforms, consumer feedback, an evolving HIV epidemic and new and emerging diseases such as avian influenza, multi-drug resistant tuberculosis and SARS. Professional staff, including grass-roots service providers, continue to be actively involved in program delivery. Moreover, there is clear evidence that participants benefited from the program on return

to their home institutions. There were recurring accounts from participants that the training empowered them. Attendees of the Bamrasnaradura clinical training programs reported:

- > improving their knowledge and attitudes;
- > developing greater professional confidence and clinical skills;
- > modifying their personal work practices in constructive ways;
- > passing their knowledge on to their colleagues by debriefing, ward meetings and professional seminars after the course; and
- > in many cases, actively participating in systemic reforms of policies and procedures as a consequence.

The clinical training programs are particularly appreciated by nursing staff both at Bamrasnaradura and elsewhere.

3. **Funding and sustainability of the training program.** Funding of the Bamrasnaradura Institute to provide clinical training programs comes from several sources: core funding originates from the Ministry of Public Health and the Institute's own budget; additional funding comes from international agencies and donors who contract the Bamrasnaradura training unit to deliver courses for specific audiences. Clinical staff employed in the Thai Public Hospital system reportedly have access to professional development funds which provide for relief staff, travel, accommodation, per diems and registration fees. Funding is allocated

- to staff based on applications which are assessed by local committees. There appears to be sufficient provision for all clinical staff to attend external professional development at least every couple of years. This is in addition to education and training which is available internally in most institutions. However, there is a lack of a similar system of support for staff working for non-government organizations and charitable bodies. This is an important issue because a significant burden of care for people with HIV in the community falls to temples, church bodies and self-help groups – particularly ambulatory and hospice care.
4. **Utilization of IEC resources.** During the TAACP a number of IEC materials were produced, including 22 pamphlets and a number of posters. These were developed for health care workers as well as people living with HIV/AIDS, their families and carers. Evidence concerning the production and use of IEC resources by the Bamrasnaradura Institute was mixed. Some materials originally developed for the project remain available. Others were quickly rendered out-of-date due to changing circumstances. This was notably the case for HIV treatments where the landscape has changed considerably since the completion of the project. New materials on antiretrovirals were subsequently developed jointly by the pharmacy department and key clinicians. Support for the production of some of these new materials was obtained from commercial sources. Other documentation has been developed since the project. For example, there has been extensive maintenance, updating and development of policies and procedures, many of which were a legacy of the project, in order to satisfy the requirements of ISO 9001:2000 accreditation.
 5. **Extension of the model.** As noted above, the ambulatory care and training model developed at the Bamrasnaradura Institute by the TAACP was found to have benefited regional and community health services both in Bangkok and elsewhere in Thailand. Not surprisingly, in all of these situations the deployment was highly influenced by local circumstances and administrative arrangements. While some modifications represent useful and often inevitable adaptations of the experience and external training provided by the Institute, there was also evidence of *ad hoc* and less systematic implementation (refer Chapter 5: Extension of the programs beyond Thailand). The result sometimes seems to have been less than ideal responses to HIV/AIDS by the recipient service, and a shortfall in the potential gains for patients. Beyond Thailand, there was evidence of benefit flowing to nearby countries from study tours to, and training by, the Bamrasnaradura Institute. This has maintained momentum because of (1) the good standing that the Institute has in the region for HIV/AIDS

care; (2) the continued availability of training provided by the Institute; (3) the ongoing support provided by the Institute, the Thai Ministry of Public Health and international donors; and (4) the recognition of the expertise of the Bamrasnaradura Institute in HIV/AIDS afforded by the World Health Organization, which has designated the Bamrasnaradura Institute as a Regional HIV/AIDS Reference Centre. Undoubtedly the TAACP laid solid foundations for these activities and contributed substantially to their sustainability.

6. Status of elements previously considered unsuccessful or partially successful. An *Evaluation of the Thailand–Australia HIV/AIDS Ambulatory Care Project* was published by AusAID soon after the project was completed (Plant, Mijch, Malau and Songwathana 2002). In the report, the authors noted several areas where the project was considered not to have been completely successful. The present impact evaluation revisited those areas to determine whether any developments had occurred since. Our observations include:

> *Medical involvement.* Thai medical involvement in the Bamrasnaradura training programs was largely at the managerial level, although certain key clinicians were involved in delivering elements of the training. Education of Thai medical staff on HIV/AIDS largely takes place in their professional societies, outside of the Bamrasnaradura system. However,

the Institute does provide training for medical personnel from nearby countries under the auspices of the WHO Regional Training Program.

- > *Nurse practitioners.* While the category ‘nurse practitioner’ exists internally at the Bamrasnaradura Institute, and some specially-trained highly-skilled nursing staff are referred to as nurse practitioners, the system seems to be largely *ad hoc* and yet to be formally externally recognised. In part this is due to changing training courses within the Institute, but also because nurse practitioner status is currently undergoing development at a national level through the Thai university system. Because Bamrasnaradura is not a university hospital, this situation seems to have left the status of internal specialist HIV/AIDS nurse practitioners in question. The Team noted that nursing staff in the Bamrasnaradura HIV/AIDS Ambulatory Care Clinic continue to undertake advanced clinical procedures under medical supervision, including lumbar punctures.
- > *Multidisciplinary care.* Multidisciplinary services for people with HIV are provided by the Institute. Access to these services is extended to family and significant others. External bodies which have previously allocated staff to attend Bamrasnaradura training programs were also found to provide multidisciplinary care to varying degrees.
- > *Library.* The library has a good core range of paper-based journals and

- books. The key journals are current. The library is organized in such a way that locating, reading and borrowing materials can be done quite efficiently manually. Users can also conduct literature searches on the internet on the premises. The electronic cataloguing system introduced during the project no longer exists largely because of lack of IT support, poor integration with existing software systems, because searching can be undertaken on the internet and because the manual system is simple and efficient.
- > *Laboratories.* The laboratories provide solid core diagnostic and monitoring services. Equipment purchased during the project continues to be useful. There seems to be low level resentment that the project did not provide additional, more sophisticated equipment. However, review of relevant project reports indicated that equipment was chosen in part based on in-country availability of support and maintenance. The Team notes that the laboratory arm was added as a necessary adjunct to support the clinical elements of the project, but was never intended to be the principal focus of the project.
 - > *Research.* With the conversion of the Bamrasnaradura Hospital to an Institute and as part of Thai health system reforms and ISO 9001:2000 accreditation strategies, professional staff are encouraged to undertake research, which has been made a pre-requisite for promotion. Nevertheless, the Team concluded that it will still take some time and effort for a research culture to be widely embraced. Moreover, many respondents report heavy time constraints which militate against undertaking research. The clinical laboratories engage in some research and development work, some of which has been presented at international conferences and published. The evaluation's findings confirm earlier impressions that the research fellowships which were established as part of the joint project were only partially effective.
 - > *Links.* The previous evaluation report noted shortfalls in the development of collaborative links with external organizations. Since that time, there is evidence that external links with HIV/AIDS organizations and academic and professional bodies have developed somewhat, but they remain limited. In particular, the Institute is actively involved in delivering training for clinical staff from the region as part of its role as a WHO Reference Centre. On the other hand, Bamrasnaradura Institute occupies an unusual position in the Thai health bureaucracy being directly administered by the Communicable Diseases arm of the Ministry of Public Health. While these arrangements have undoubtedly assisted the Institute to develop into a successful specialist clinical Institute, these same arrangements make the formalization of external links with universities and other health bodies more difficult.

7. **Further observations.** A number of factors have impacted on the sustainability of the outcomes of the TAACP since its completion in 2001.

First, local conditions understandably necessitate modification of policies, programs and procedures developed at Bamrasnaradura before they can be deployed elsewhere. Some of these modifications are constructive and adaptive; others reflect compromises because local resources and organizations cannot accommodate the full model. In either case then, it is not surprising that the Team was not able to identify a single case where the Bamrasnaradura ambulatory care model was deployed unaltered. Rather, it was usual for elements to be used in a more modular fashion.

Second, the Thai economic climate has been in a state of flux in recent years and this has affected public sector capacity. The health system in particular, has been subject to extensive reforms, including a drive to obtain ISO 9001:2000 accreditation and the introduction of the 30 Baht policy to guarantee universal health care access. Both of these policies offer the prospect of better care for people with HIV/AIDS, many of whom become impoverished because of AIDS and also suffer stigma and discrimination. The ISO 9001:2000 accreditation process does seem to have led to a systematic approach to managing health care services, although this cannot be assumed to automatically benefit patient care.

Third, new and emerging infectious diseases as well as the changing face of the AIDS epidemic have influenced the shape of programs delivered by the Bamrasnaradura Institute. The appearance of SARS and potentially dangerous influenza strains and the re-emergence of multi-drug resistant tuberculosis have triggered renewed interest in infection control procedures. The Bamrasnaradura Regional Training Centre has responded to these developments (and to consumer demand) by modifying existing courses and developing new materials. Moreover, the designation of the Bamrasnaradura Institute as a WHO Regional Training Centre has almost certainly contributed to the sustainability of programs originally developed by the TAACP.

The introduction of combination antiretrovirals has changed the landscape of HIV care in Thailand. The result has been an easing of demand for acute and in-patient services and a greater focus on ambulatory care and monitoring. Here too, the Institute has modified both its approach to clinical services and to training. While these developments are to the credit of the Bamrasnaradura Institute, there is a clear possibility that attention to HIV/AIDS will decline in the shadow of more generic approaches.

Finally, several areas were identified where there is scope for future development initiatives, which would substantially enhance the benefits already gained from the original project.

These include:

- > A need to develop STI services in Thailand, as STI control has been clearly shown to affect the spread of HIV.
- > A need to develop hospital infection control systems as the overcrowding observed by the Team in various Thai hospitals clearly poses infection control risks, including the risk of needle stick injury and the ready transmission of respiratory pathogens, such as tuberculosis.
- > It would be valuable to have field officers from the Bamrasnaradura Institute visit external hospitals and welfare organizations whose staff have previously attended training programs. The purpose of these field visits would be: (1) to support the subsequent development and implementation of policies and procedures, thereby translating training into practice in line with good adult learning principles; (2) for those field officers to use their field experience to develop and refine course materials so that they are in-tune with external circumstances; and (3) to further promote the Bamrasnaradura training programs.
- > A need for greater recognition of the role that charitable organizations play in the care of people with HIV in the community (ranging from prevention to ambulatory care to hospice services). These organizations require greater access to training, education and professional development for their staff, including funding.

- > The need to assist in developing research capacity, not merely in the biomedical sciences, but also in clinical care, health sociology, health services management and public health.

Clearly, the Team was able to confirm that the joint Thailand-Australia HIV/AIDS Ambulatory Care Project was a successful project, which continues to provide benefits for Thai people several years after the project was completed. There was clear evidence that systems developed as a result of the TAACP were largely intact, often being modified, improved and built upon in response to changing circumstances. There was also evidence that the benefits enjoyed by the Bamrasnaradura Institute were being extended to other facilities in Thailand and to neighbouring countries, largely because of the education programs that were developed and implemented by the Bamras Regional Training Centre. The Team suggests that this sustained positive outcome has been achieved because the project had its origins in, and was provided by, experienced grass-roots service providers in a genuine partnership with their Thai counterparts; by fostering the development of flexible systems and skills that can evolve and adapt; by the project being deployed in a timely manner when Thailand was in particular need and because the project was embraced as a priority by the Thai Government.

การประเมินผลกระทบจากโครงการดูแลและฟื้นฟูสุขภาพผู้ติดเชื้อและผู้ป่วยเอดส์ ภายใต้ความร่วมมือระหว่างประเทศไทยและออสเตรเลีย

บทสรุปผู้บริหาร

โครงการการดูแลและฟื้นฟูสุขภาพผู้ติดเชื้อและผู้ป่วยเอดส์ ซึ่งเป็นโครงการความร่วมมือระหว่างประเทศไทยและออสเตรเลีย ที่ได้ดำเนินการระหว่างปี พ.ศ. 2540-2544 เพื่อลดภาระของโรงพยาบาลบำราศนราดูรที่มีผู้ติดเชื้อและผู้ป่วยเอดส์เพิ่มขึ้นมาก โดยพัฒนาการบริการดูแลรักษาผู้ติดเชื้อและผู้ป่วยเอดส์ และให้การอบรมหรือความรู้แก่เจ้าหน้าที่ของโรงพยาบาลบำราศนราดูรอย่างต่อเนื่อง และได้มีการประเมินผลโครงการระยะสั้นตั้งรายงานที่ผ่านมา (Plant, Mijch, Malau and Songwathana, 2002) ในการศึกษาครั้งนี้เป็นการประเมินติดตามภายหลังเสร็จสิ้นโครงการไปแล้ว 4 ปี เพื่อประเมินผลโครงการว่ายังคงดำเนินอยู่และให้ผลระยะยาวต่อประชาชนไทยหรือไม่อย่างไร ผลการศึกษารูปได้ดังนี้

1. ด้านรูปแบบการดูแลและฟื้นฟูสุขภาพ (ambulatory care model) พบว่า รูปแบบการดูแลและฟื้นฟูสุขภาพที่พัฒนาขึ้นภายใต้โครงการนี้ ยังคงดำเนินมาอย่างต่อเนื่องถึงปัจจุบันและให้ผลประโยชน์หลายประการ กิจกรรมหลักของโครงการยังคงดำเนินอยู่และมีปรับเปลี่ยนตามสถานการณ์การระบาด การบริการที่ยังอยู่ภายใต้ระบบบริการดูแลและฟื้นฟูผู้ป่วยของสถาบันบำราศนราดูรโดยเน้นทีมสหวิชาชีพและคำนึงถึงผู้ป่วยเป็นศูนย์กลาง แม้จะมีข้อจำกัดในอัตราค่าล้างและภาระงานทางคลินิกที่เพิ่มขึ้น จากการที่ต้องขยายบทบาทด้านการอบรมและการวิจัย อาจทำให้ศูนย์อบรมระดับภาคหรือประเทศคู่ขนานชาติได้รับผลกระทบบ้าง แต่มีรายงานว่า กิจกรรมการอบรมมีลักษณะความเป็นวิชาชีพมากขึ้น โดยเป็นแหล่งเรียนรู้ที่มีผู้ป่วยมารักษาากของประเทศ เมื่อประเมินถึงการนำรูปแบบไปใช้ในโรงพยาบาลอื่นของประเทศ พบว่า มีการนำองค์ประกอบต่างๆของรูปแบบการดูแลนี้ไปปรับใช้ให้เหมาะสมในโรงพยาบาลทั่วไปและชุมชน จนกระทั่งเป็นส่วนหนึ่งของการพัฒนาโยบายของประเทศที่เน้นการดูแลในชุมชนอย่างต่อเนื่อง (comprehensive community care, CCC)
2. ด้านโปรแกรมการอบรมทางคลินิก พบว่า มีการอบรมให้แก่บุคลากรทั้งในและนอกสถาบัน รวมทั้งผู้ที่มาจากประเทศต่างๆในภูมิภาค หลายโปรแกรมพัฒนามาจากโครงการนี้ โดยปรับปรุงเนื้อหาให้ทันสมัยและตอบสนองต่อการเปลี่ยนแปลงที่เกิดขึ้นในช่วงเวลาต่างๆ เช่น การปฏิรูประบบสุขภาพ การประเมินของผู้มาใช้บริการ การระบาดของโรคติดเชื้อใหม่ๆ ได้แก่ ไข้หวัดนก วัณโรคที่ดื้อยา และซาร์ (SARS) ที่สำคัญคือ บุคลากรระดับปฏิบัติมีส่วนร่วมในการดำเนินงานอบรม นอกจากนี้ เมื่อประเมินผลผู้ที่มาอบรมถึงสิ่งที่

เกิดขึ้นภายหลังอบรมและกลับไปทำงานในหน่วยงานของตนเอง ในภาพรวมพบว่า การอบรมมีส่วนช่วยอย่างมาก โดยให้การสะท้อนผลการอบรมหลายประการ คือ ช่วยเพิ่มความรู้และทัศนคติ พัฒนาความเชื่อมั่นและทักษะทางคลินิก ช่วยในการปรับวิธีปฏิบัติในระดับบุคคลให้มีความถูกต้องเหมาะสม มีการถ่ายทอดความรู้ที่ได้จากการอบรมแก่คนอื่นๆในหน่วยงาน หลายคนได้มีส่วนร่วมในระดับนโยบายทำให้มีการปรับปรุงระบบการทำงานที่ดีขึ้น ทั้งนี้จะพบว่า โปรแกรมการอบรมที่จัดขึ้นเพื่อบุคลากรทางการแพทย์เป็นหลักเป็นที่ยอมรับของพยาบาลทั้งในสถาบันบาราศนราดูรและที่อื่นๆ

3. ด้านงบประมาณ(ทุน)และความยั่งยืนของโปรแกรมการอบรม พบว่าแหล่งทุนในการจัดอบรมของสถาบันบาราศนราดูรมาจากหลายแหล่ง แหล่งทุนที่เป็นหลักคือ จากกระทรวงสาธารณสุข และสถาบันบาราศฯ นอกเหนือจากนั้นจะเป็นแหล่งทุนจากต่างประเทศ หรือผู้ที่ให้ทุนเพื่อจัดอบรมในบางกลุ่มโดยเฉพาะ นอกจากนี้ ผู้ที่ปฏิบัติงานในโรงพยาบาลของกระทรวงสาธารณสุขโดยทั่วไปจะได้รับ การสนับสนุนให้เข้ารับการอบรม เช่น ค่าเดินทาง ที่พัก เบี้ยเลี้ยง และค่าลงทะเบียน ซึ่งขึ้นกับการสมัครและการพิจารณาของกรรมการที่ผู้ปฏิบัติงานสังกัด ทั้งนี้จะมีการหมุนเวียนกันเข้ารับการอบรมในแต่ละปีที่จัดโดยสถาบันต่างๆ ซึ่งเพิ่มเติมไปจากการอบรมภายในหน่วยงาน อย่างไรก็ตาม พบว่า ยังขาดการสนับสนุนที่เป็นระบบเดียวกันที่จัดให้กับองค์กรที่ไม่ใช่ของรัฐหรือในกลุ่มที่ทำงานเป็นอาสาสมัคร ด้วยพบว่ากลุ่มนี้ต้องดูแลผู้ป่วยเป็นจำนวนมากในชุมชน เช่นที่วัด โบสถ์ และกลุ่มช่วยเหลือกันเอง
4. ด้านการใช้สื่อเพื่อการถ่ายทอดความรู้ สื่อต่างๆที่ผลิตขึ้นเพื่อผู้ป่วย ครอบครัวและเจ้าหน้าที่ ซึ่งประกอบด้วย แผ่นพับ โปสเตอร์มี 22 รายการ พบว่า สื่อบางรายการที่ผลิตโดยโครงการนี้ ยังคงใช้อยู่จนถึงปัจจุบัน แต่บางรายการไม่ได้ใช้แล้วเนื่องจากมีเนื้อหาไม่ทันสมัย อย่างไรก็ตาม พบว่าฝ่ายเภสัชกรร่วมกับทีมสุขภาพได้ผลิตสื่อเรื่องยาต้านไวรัส ซึ่งได้รับการสนับสนุนด้านงบประมาณจากบริษัทฯ ส่วนเอกสารและสื่อเรื่องอื่นๆกำลังอยู่ในระหว่างการพัฒนา อันเป็นส่วนหนึ่งของนโยบายคุณภาพโรงพยาบาลเพื่อให้ผ่านการประเมินคุณภาพ ISO 9001 และเกณฑ์ประกันคุณภาพ 2000
5. ด้านการนำรูปแบบไปประยุกต์ใช้ ดังที่กล่าวไว้ข้างต้นแล้วว่าการอบรมและรูปแบบการดูแลและฟื้นฟูที่พัฒนาขึ้นภายใต้โครงการนี้ มีประโยชน์ต่อการให้บริการในภูมิภาคและชุมชนทั้งในเขตกรุงเทพมหานครและที่อื่น ด้วยการสนับสนุนและจัดการที่เหมาะสมกับพื้นที่แต่ละแห่ง ขณะเดียวกัน ก็มีการแลกเปลี่ยนประสบการณ์กับหลายประเทศที่มาศึกษาดูงาน ดังนั้นสถาบันบาราศฯยังคงเป็นที่ยอมรับมาจนกระทั่งถึงปัจจุบัน เพราะ 1) เป็นสถาบันที่ดูแลผู้ติดเชื้อและผู้ป่วยเอดส์ของภูมิภาค 2) เป็นสถาบันที่ให้การอบรมอย่างต่อเนื่อง 3) เป็นสถาบันที่ได้รับการสนับสนุนอย่างต่อเนื่องทั้งในและต่างประเทศ 4) เป็น

สถาบันที่มีชื่อเสียงทางด้านการดูแลผู้ติดเชื้อและผู้ป่วยเอดส์ ซึ่งได้รับการช่วยเหลือจาก องค์การอนามัยโลกให้เป็นศูนย์การดูแลผู้ติดเชื้อและผู้ป่วยเอดส์ระดับภูมิภาค ซึ่งเป็นผล ส่วนหนึ่งจากโครงการที่ได้พัฒนาให้มีความยั่งยืนอย่างต่อเนื่อง

6. ด้านผลการดำเนินงานในบางองค์ประกอบที่ยังไม่ประสบความสำเร็จหรือสำเร็จเพียง บางส่วน จากรายงานการประเมินผลครั้งก่อน (Plant, Mijch, Malau and Songwathana, 2002) ที่พบว่า การดำเนินงานบางส่วนยังไม่ประสบความสำเร็จ หรือสำเร็จเพียงบางส่วนนั้น แต่ในการประเมินครั้งนี้ พบว่า มีการเปลี่ยนแปลงไปจากเดิม บางประการ ดังนี้
 - a. การมีส่วนร่วมของแพทย์ ในโครงการนี้ พบว่ายังมีในระดับน้อย โดยส่วนใหญ่จะ เข้ามามีส่วนร่วมในการเป็นวิทยากรอบรมหรือเข้าร่วมในโครงการอบรมให้กับ ประเทศเพื่อนบ้านภายใต้โครงการอบรมขององค์การอนามัยโลก โดยแพทย์ที่ ปฏิบัติงานด้านการดูแลผู้ติดเชื้อของสถาบันบาราศส่วนใหญ่จะได้รับการอบรม จากภายนอก
 - b. บุคลากรทางพยาบาลที่อาจเรียกว่า พยาบาลเวชปฏิบัติ ซึ่งเป็นผู้ที่ผ่านการฝึกและมี ทักษะเฉพาะที่ชำนาญในระดับสูงและได้รับการยอมรับในสถาบันเท่านั้น โดย พบว่าพยาบาลเวชปฏิบัติที่ทำในหน่วยดูแลและฟื้นฟูผู้ป่วยมีความสามารถคัด กรอง ตรวจสอบเบื้องต้นและให้การช่วยเหลือแพทย์ในการเจาะหลังได้ โดยอยู่ภายใต้ การดูแลของแพทย์ อย่างไรก็ตาม การเป็นพยาบาลเวชปฏิบัติจะต้องผ่านการ อบรมหรือศึกษาในมหาวิทยาลัย จึงจะได้รับการยอมรับในทางวิชาชีพ
 - c. การดูแลร่วมกันเป็นทีมสหวิชาชีพ ซึ่งให้บริการครอบคลุมทั้งครอบครัวและคน ใกล้เคียง โดยผู้ที่ผ่านการอบรมในสถาบันบาราศฯ ได้มีการให้บริการเป็นทีมสห วิชาชีพในระดับต่างๆด้วย
 - d. ห้องสมุด ห้องสมุดของสถาบันบาราศฯมีวารสารและหนังสือมากมาย โดยเฉพาะ วารสารมีความทันสมัย นอกจากนี้ห้องสมุดให้บริการที่หลากหลายและมีการ จัดการที่เป็นระบบแบบปกติ ดังนั้นระบบการค้นวารสารหรือหนังสือด้วย โปรแกรมที่พัฒนาขึ้นจากโครงการจึงยกเลิกไป ส่วนหนึ่งเป็นเพราะขาดการ สนับสนุนด้านสารสนเทศ และขาดการเชื่อมโยงกับระบบข้อมูลที่มีอยู่ อีกประการ หนึ่งข้อมูลต่างๆสามารถค้นหาผ่านอินเทอร์เน็ตได้
 - e. ห้องปฏิบัติการทางคลินิก เพื่อให้บริการการวินิจฉัยและติดตามการดำเนินโรค อุปรณ์ที่ซื้อใช้ระหว่างการดำเนินโครงการ ยังคงใช้อยู่อย่างต่อเนื่อง แม้ว่าจะมี ประสิทธิภาพในระดับหนึ่งแต่ก็เป็นอุปกรณ์ที่ทำได้ในขณะนั้นและสะดวกในการ รักษา

- f. การวิจัย การปรับเปลี่ยนสถานะจากโรงพยาบาลเป็นสถาบัน อันเป็นส่วนหนึ่งของการปฏิรูประบบสุขภาพและระบบประกันคุณภาพโรงพยาบาล ISO 9001-2000 นุคลากรทางการแพทย์และพยาบาลจึงต้องทำการวิจัยอันเป็นส่วนหนึ่งของการเลื่อนขั้น อย่างไรก็ตามเท่าที่ประเมิน ยังพบว่า นุคลากรมีข้อจำกัดมากในเรื่องเวลาในการทำวิจัยและต้องอาศัยความพยายามอย่างมาก เพื่อให้เกิดวัฒนธรรมหรือบรรยากาศในการวิจัย แต่ก็พบว่า บางหน่วยงาน เช่น ผู้ที่ทำงานในห้องปฏิบัติการ มีงานวิจัยหลายเรื่อง และบางเรื่องสามารถนำไปเสนอผลงานและตีพิมพ์ในการประชุมระดับนานาชาติ
- g. เครือข่ายเชื่อมโยงกับสถาบันอื่น จากการประเมินครั้งที่ผ่านมา พบว่าการพัฒนาเครือข่ายเชื่อมโยงกับสถาบันอื่นๆยังมีน้อย และก็ยังมีความกังวลใจกับบางประการจนถึงปัจจุบัน แม้ว่าสถาบันบาราศฯจะมีการจัดอบรมให้กับบุคลากรในหน่วยงานแต่ก็เทียบบทบาทหนึ่งภายใต้การสนับสนุนขององค์การอนามัยโลกเท่านั้น นอกจากนี้ อาจเป็นเพราะ สถาบันบาราศฯอยู่ภายใต้กระทรวงสาธารณสุขจึงต้องการการจัดการที่เป็นทางการมากขึ้นเพื่อให้เกิดความสำเร็จในการมีเครือข่ายเชื่อมโยงกับมหาวิทยาลัยและสถาบันอื่น ๆ ได้มากขึ้น
7. ข้อสังเกตจากการประเมินผล จากการสังเกตโดยทั่วไป พบว่า ปัจจัยบางประการที่อาจมีอิทธิพลต่อความยั่งยืนของผลลัพธ์ที่เกิดภายหลังโครงการนี้ได้เสร็จสิ้นไปแล้วเมื่อปี พ.ศ. 2544 มีดังนี้
- 7.1 ทุกคนที่เข้าร่วมโครงการมีความเข้าใจในนโยบาย โครงการและวิธีการที่ปรับและพัฒนาขึ้นใช้ในสถาบันบาราศฯ ก่อนนำไปใช้กับที่อื่น แต่ผู้ที่นำไปใช้จะต้องมีการปรับให้มีความสอดคล้องกับทรัพยากรและโครงสร้างขององค์กรที่มีอยู่มากกว่าที่จะใช้เต็มรูปแบบเหมือนเช่นที่สถาบันบาราศฯได้ดำเนินการ ดังนั้น จึงไม่พบว่าที่อื่นมีการใช้รูปแบบการดูแลและฟื้นฟูของสถาบันบาราศฯได้ แต่จะประยุกต์เพียงบางส่วนที่สามารถนำไปใช้ได้
- 7.2 สภาพปัญหาทางเศรษฐกิจของประเทศไทยในช่วงที่ผ่านมา ในยุคที่มีระบบปฏิรูประบบสุขภาพและการมีนโยบายรักษา 30 บาททุกโรค รวมทั้งการผลักดันให้สถาบันได้รับการยอมรับในระบบประกันคุณภาพดังกล่าว มีผลกระทบต่อการทำงานของบริการ โดยทำให้นำไปสู่การพัฒนากระบวนการดูแลผู้ป่วยเอดส์ที่ดีขึ้น ทั้งในลักษณะการช่วยเหลือผู้ป่วยเอดส์ที่ยากจน และลดการรังเกียจในสังคม
- 7.3 จากการที่ต้องเผชิญกับการระบาดของโรคติดต่อชนิดใหม่ เช่น SARS และ ความก้าวหน้าของการรักษาโรคเอดส์ทำให้เกิดการคิดเชื่อชนิดคือต่อยาวโรค ทำให้เกิดบุคลากรหลายฝ่ายมีความตระหนักและสนใจต่อวิธีการควบคุมโรคติดต่อมากขึ้น ศูนย์การอบรมระดับภูมิภาคของสถาบันบาราศฯ จึงมีการตอบสนองต่อการเปลี่ยนแปลงนี้ โดย

ดัดแปลงและพัฒนาเนื้อหาและสื่อในการอบรมใหม่ๆ อันเป็นการต่อยอดจากเดิมที่ได้พัฒนาจากโครงการนี้

นอกจากนี้ จากการรักษาด้วยยาต้านไวรัส ทำให้มีการเปลี่ยนระบบการดูแลผู้ติดเชื้อและผู้ป่วยเอดส์ในประเทศไทย โดยมีผลให้ลดภาระการดูแลผู้ป่วยในระยะเฉียบพลันหรือจำนวนผู้ป่วยที่นอนในโรงพยาบาล และมีการดูแลแบบผู้ป่วยนอกหรือเป็นการติดตามผู้ป่วยในระยะฟื้นฟูมากขึ้น สถาบันบาราศฯจึงมีการดัดแปลงวิธีการให้บริการผู้ป่วยและการจัดอบรมซึ่งมีความเป็นไปได้ว่า ในอนาคต ความสนใจเรื่องการดูแลผู้ติดเชื้อและผู้ป่วยเอดส์ จะลดลงหรือมีความคล้ายคลึงกับวิธีการให้บริการให้บริการผู้ป่วยทั่วไป

สุดท้าย เพื่อพัฒนาสู่ความยั่งยืนในอนาคต ทีมประเมินมีความเห็นว่าควรมีการขยายหรือพัฒนาอีกหลายเรื่อง ที่สำคัญมี ดังนี้

- ควรพัฒนาการบริการโรคติดเชื้อทางเพศสัมพันธ์ (STI) เพราะการควบคุมโรคติดเชื้อดังกล่าวจะช่วยลดการแพร่กระจายของเชื้อเอชไอวีได้อย่างแน่นอน
- ควรพัฒนาระบบการป้องกันและควบคุมการติดเชื้อในโรงพยาบาล และนำไปปฏิบัติอย่างจริงจังโดยทีมประเมินพบว่า โรงพยาบาลบางแห่งที่มีผู้ป่วยจำนวนมากจะอยู่กันอย่างแออัด ซึ่งยากต่อการควบคุมการติดเชื้อ อันอาจนำไปสู่การแพร่กระจายเชื้อในระบบทางเดินหายใจได้ง่าย เช่น เชื้อวัณโรค รวมทั้งการลดความเสี่ยงจากเข็มตำอันเกิดจากการไม่ได้ใช้เทคนิควิธีการที่ถูกต้อง
- ควรให้เจ้าหน้าที่จากสถาบันบาราศฯได้มีการติดตามเยี่ยม โรงพยาบาลหรือหน่วยงานภายนอกของผู้ที่ผ่านการอบรมแล้ว เพื่อ 1) ให้การสนับสนุนช่วยเหลือในกิจกรรมการพัฒนาและผลักดันนโยบายไปสู่การปฏิบัติที่เหมาะสม ทั้งนี้เป็นการติดตามผลการอบรมไปสู่การปฏิบัติซึ่งเป็นกระบวนการเรียนรู้วิธีหนึ่ง 2) สามารถใช้ความชำนาญหรือความเฉพาะทางในการปรับสื่อการสอนที่ใช้เพื่อให้ความเหมาะสมกับการนำไปใช้ได้จริง 3) เป็นการประชาสัมพันธ์โปรแกรมการอบรมของสถาบันฯ
- ควรให้โอกาสกับผู้ที่เรียนอาสาสมัครในองค์กรที่ดูแลผู้ติดเชื้อและผู้ป่วยเอดส์ที่อยู่ในชุมชน ให้เข้าร่วมการอบรม การได้รับความรู้และพัฒนาด้านวิชาชีพ รวมทั้งงบประมาณสนับสนุนในกลุ่มผู้ดูแลดังกล่าว (ทั้งในลักษณะการบริการในเชิงป้องกันจนถึงดูแลผู้ป่วยระยะสุดท้าย)
- ควรมีการพัฒนาศักยภาพในการทำวิจัยที่นอกเหนือไปจากด้านวิทยาศาสตร์การแพทย์ แต่รวมถึงการวิจัยด้านการดูแลทางคลินิก สังคมศาสตร์การแพทย์ การจัดการบริการ และสาธารณสุข

โดยสรุป ผลการประเมินสามารถกล่าวได้ว่า โครงการการดูแลและฟื้นฟูสุขภาพผู้ติดเชื้อและผู้ป่วยเอดส์ ภายใต้ความร่วมมือไทย-ออสเตรเลียนี้ เป็นโครงการที่ประสบความสำเร็จโครงการหนึ่งที่ทำให้ประโยชน์กับประชาชนไทยอย่างต่อเนื่องภายหลังเสร็จสิ้นการดำเนินโครงการแล้ว เป็นที่ยืนยันชัดเจนว่าระบบการพัฒนาและ ผลลัพธ์จากโครงการยังคงอยู่ แม้จะมีการปรับเปลี่ยนรูปแบบไปบ้างทั้งนี้เพื่อตอบสนองต่อการเปลี่ยนแปลงของสถานการณ์ที่เกิดขึ้น โดยเห็นได้จากกรอบมโนทัศน์กลุ่มต่างๆที่ได้มีการนำความรู้ไปพัฒนาและลงมือปฏิบัติ ทั้งในลักษณะการพัฒนาระบบบริการ และทักษะของผู้ให้บริการ รวมทั้งส่วนหนึ่งสำเร็จได้เพราะเป็นโครงการที่ช่วยตอบสนองต่อนโยบายของรัฐบาลไทย

1 Background

SUMMARY

The joint Thailand-Australia HIV/AIDS Ambulatory Care Project (TAACP) was undertaken between 1997 and 2001. As a response to the heavy burden that the HIV/AIDS epidemic imposed on Thailand, the aim of the project was to assist Thailand's premiere infectious diseases hospital, the Bamrasnaradura Hospital, to develop its HIV/AIDS services, particularly the approach to ambulatory care, and to provide education and training for clinical staff at the hospital and beyond. At the completion of the project an evaluation study was conducted which reported on the immediate outcomes of the project (Plant, Mijch, Malau and Songwathana 2002). However, an important principle of international development is that the benefits of development are sustainable. The purpose of the present study was to revisit the Bamrasnaradura Institute four (4) years after the project was completed to assess its

sustainability and impact, including whether it had delivered long term benefits for the Thai people.

THE EPIDEMIC²

While the first diagnosis of AIDS in Thailand was reported in 1984, it is thought that transmission accelerated particularly in the late 1980s when HIV became widespread (Phanuphak, Locharernkul and Panmuong 1985; Limsuwan, Kanapa and Siristonapun 1986). The first major 'wave' of the epidemic occurred among injecting drug users (IDU) during 1988-1989. During the space of 12 months, the rate of infections rose from the occasional case to involve around 40% of people who were injecting drugs. At around the same time, a 'second wave' of infection occurred among sex workers. In 1989, it was found that 44% of sex workers in Chiang Mai were HIV positive (Weniger et al 1991). Subsequently,

2 Adapted from <http://www.avert.org/aidsthai.htm>

waves of the HIV epidemic were detected in male clients of sex workers, their wives and partners, and their children (Viravaidya et al 1993). To date up to one million people have been estimated to be infected with HIV in Thailand; 570,000 people were estimated to be living with HIV at the end of 2003; and 58,000 people died following AIDS in 2003 (UNAIDS/WHO 2004a:2).

The Government of Thailand acted decisively in response to the rapidly emerging epidemic, and its nationwide HIV prevention campaign remains one of the few examples of an effective national AIDS prevention program in the world. In 1991 AIDS prevention and control was made a national priority. To reflect its importance, the AIDS control program was moved from the Ministry of Public Health to the Office of the Prime Minister, and in 1993 the AIDS budget was increased almost 20-fold to USD\$44 million (Owens 1991). A comprehensive public information campaign on AIDS was launched and perhaps most importantly, the '100 percent condom program' was initiated (Hananberg, Rojanapithayakorn, Kunasol and Sokal 1994). This program aimed to enforce consistent condom use in all commercial sex establishments. Condoms were distributed free to brothels and massage parlours, and sex workers and their clients were required to use them. Brothels that failed to comply with the new regulations were at risk of being closed.

From 1992 to 1996, the National AIDS program received substantial increases in funding. By 1996 the Thai Government was providing an annual AIDS budget of more than USD\$80 million. The second 'National

Plan for the Prevention and Alleviation of HIV/AIDS' covered the period from 1997 to 2001. This plan maintained previously effective programs, while adopting a more holistic approach, including mobilizing communities and people living with HIV/AIDS (World Bank 2000:10-11).

The third 'National Plan for the Prevention and Alleviation of HIV/AIDS' in Thailand covered the period from 2002 to 2006. This plan was launched at the end of 2001 and had three key aims (National AIDS Prevention and Alleviation Committee 2001). First, to reduce the HIV prevalence among adults to less than 1%; second, to provide access to care and support for at least 80% of people living with HIV/AIDS and other affected individuals; and third, to support local administrations and community organizations throughout the country to plan and implement strategies to prevent HIV transmission and alleviate the impact of AIDS.

Initially, most HIV infections in Thailand were related to commercial sex, and major efforts were made to reduce the number of men visiting female sex workers; and to promote condom use in all commercial and casual sexual interactions. These efforts appear to have significantly changed the levels of risk behaviour in Thailand. The known HIV infection rate among commercial sex workers was reduced from 50% in 1991 to 20% in 2001 (Hart 2001). Prevalence rates of HIV in sex workers in certain urban areas of Northern Thailand remain at between 25% and 40%, and over 40% in Chiang Mai (UNAIDS/WHO 2004a:5). Sex work is a broad term; it can take place 'formally' in places like brothels

and massage parlours or ‘informally’ or ‘indirectly’ in bars and restaurants, transport centres or on the street. Sex can be provided for money or for gifts or favours. Sex work can be full-time or seasonal depending on financial necessity. It should also be noted that sex work can be involuntary when trafficking and coercion are involved (UNAIDS/WHO 2004b:42). Condom use among ‘indirect’ sex workers is low and there is evidence that HIV prevalence is on the rise among sex workers in some parts of the country, particularly Bangkok (World Bank 2000:2).

Despite the successes of strategies targeting the commercial sex industry, there has been more limited impact on the slow but steady transmission of HIV from infected male clients and male IDUs to their regular sex partners (WHO 2001:21-23). Currently, half of the newly identified infections are among the wives and sexual partners of men who became infected several years ago (UNAIDS 2002a:10).

HIV prevention for people who inject drugs and their sex partners has not enjoyed a similarly high priority in Thailand, even though transmission through drug injecting is an important feature of the AIDS epidemic (World Bank 2000:3). In 1991 transmission of HIV via drug injecting amounted to 5% of the total in Thailand; transmission from a spouse was also 5%. In 2002 50% of transmissions were from a spouse and 20% were as a result of drug injecting (UNAIDS/WHO 2004a). Infection rates among people who inject drugs have remained high, at 35-50%, and are still increasing in some areas. In addition to spreading among injecting drug users, HIV

can also spread to their sexual partners and their children. Left unchecked, the high infection rate among people who inject drugs will continue to be a key reservoir for HIV. However, at the end of 2002, UNAIDS urged Thailand and other countries in the region, to consider harm reduction strategies such as providing clean needles to people who inject drugs, because these strategies have been shown to be effective in this population elsewhere (Bhatiasevi 2002).

Although the rate of new infections has been reduced in Thailand from 140,000 in 1991 to 21,000 in 2003, the epidemic is ongoing. In a population of 65 million, one Thai in every 100 is infected with HIV, and AIDS has become the leading cause of death (UNAIDS 2002b:31-32). As in other countries, there are increasing demands for AIDS-related medical care – palliative and terminal care, prevention and treatment of opportunistic diseases and antiretroviral therapies. It has been estimated that over 50,000 Thais will die annually from AIDS-related causes by 2006. Over 90% of these deaths will occur in people aged 20-44, typically the most productive sector of the workforce (WHO 2001:21-23).

It was announced at the beginning of 2003 that Thailand will receive USD\$209 million over the next five years from the Global Fund to fight AIDS, TB and Malaria (www.avert.org/aidsmoney; Global Fund to Fight AIDS, Tuberculosis and Malaria 2003). The money is to be used to provide antiretroviral treatment for people with AIDS and HIV/AIDS-related activities. By May 2003, around 13,000 patients were reportedly receiving antiretroviral treatments. This figure rose to about 21,000 people by early 2004; and

the Thai government pledged to provide treatment for an additional 50,000 people by the close of 2004 (UNDP 2004:71). Access to treatment is planned to increase to 70,000, using funds from the Thai Government and the Global Fund. It is planned that 10% of people with HIV/AIDS in Thailand will receive treatment within two (2) years (Ford et al 2004).

THE THAILAND-AUSTRALIA HIV/AIDS AMBULATORY CARE PROJECT

The Thai Ministry of Public Health (MoPH) nominated Bamrasnaradura Infectious Disease Hospital (known as 'Bamras' or BIDH) in 1987 as the National Clinical Reference and Training Centre for HIV/AIDS in Thailand. As the epidemic grew so too did the demand on services at the Bamras hospital. Between 1988 and 1995 Bamras experienced a 45 fold increase in patients presenting with HIV infection. This increase in demand, coupled with limited inpatient beds, resulted in significant management difficulties. It was decided that a new model of care was required to utilise Bamras staff more effectively and to improve the quality of services available to patients. Senior staff reviewed a number of potential models, and in a visit to Albion Street Centre in Sydney in 1994 decided that the ambulatory care model was best suited to coping with the pressures of a growing epidemic in Thailand. This model provided integrated multidisciplinary care and a holistic patient centred approach. It was designed to optimise clinical outcomes for patients and families while simultaneously relieving pressures on scarce resources and expensive hospital beds.

AusAID first became involved in the project at the end of 1994/beginning of 1995, when a request for a small grant was approved for the Albion Street Centre (ASC) to conduct a three week needs assessment of HIV/AIDS ambulatory care capacity, hospital facilities, administrative structure and function and professional resources. In April 1995 the NSW Department of Health and the MoPH Thailand signed a memorandum of understanding endorsing their collaboration. Further negotiations between the Bamrasnaradura Hospital and the NSW Department of Health/ASC eventually led to a proposal with the clear support of the Thai MoPH which recommended approval by DTEC. After further discussions in January and February 1996, AusAID conducted a feasibility/design study for the project. This study assessed the feasibility of the project and prepared a draft AusAID Project Design Document.

The goals of the Thailand-Australia HIV/AIDS Ambulatory Care Project (TAACP) were:

- > to establish a fully integrated ambulatory care model at the BIDH for the delivery of optimal care to patients with HIV/AIDS and the support of families and carers by strengthening health worker training, organizational support and infrastructure development;
- > to assist in the development of the BIDH as a Clinical Reference Centre and as a National and Regional Training Centre in HIV/AIDS care.

To achieve these goals, the project was designed around four major components:

- > *Human Resources Development* – development of clinical and counselling skills of health care workers at Bamrasnaradura Hospital in the delivery of care to patients with HIV/AIDS and in providing psychosocial support to family and carers.
- > *Health Education and Information Services* – development of organizational 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.
- > *Administrative and Organizational Structures* – development of organizational capacities to develop and implement an ambulatory care model that would be transferable locally, nationally and regionally.
- > *Project Management* – to effectively and efficiently manage and implement the Project for the achievement of defined implementation targets and Project objectives.

The Project commenced in April 1997, and was due for completion in December 1999. A Technical and ‘Mid-Term’ Review was conducted in April 1998 to assess the extent to which the project had achieved its objectives during the initial 12 months, and to recommend changes that would strengthen the chances of achieving the project’s goals. One of these recommendations was to extend the project by another year to consolidate the skills and

capacity of health care workers at Bamras, particularly those actively involved in the Regional Training Centre.

An external evaluation of the Project was requested by the AusAID Thailand Desk to coincide with the last stages of the Project (Plant, Mijch, Malau and Songwathana 2002). In brief, the objectives of the evaluation were to assess the effectiveness, efficiency and impact of the TAACP, particularly with respect to identifying lessons learned. The evaluation included assessing the:

- > appropriateness of the objectives and design;
- > extent to which the activity had achieved its stated goals and objectives;
- > professionalism of management;
- > sustainability of benefits; and
- > adaptability and replicability of the ambulatory care model.

Overall, this evaluation found that the project was ‘*relevant to the needs of the Thai people, had been implemented in a satisfactory manner, had achieved almost all its objectives, and that its benefits were likely to be sustainable within the hospital*’ (Plant, Mijch, Malau and Songwathana 2002:ix)

More recently, as part of government reform in 2002, under Department of Diseases Control, Ministry of Public Health, the hospital’s vision and mission were re-written with a greater emphasis on research and training. To reflect these changes the Bamrasnaradura Infectious Diseases Hospital was renamed the Bamrasnaradura Institute (BI).

Vision:	<ul style="list-style-type: none"> > To become internationally and academically recognised as a centre of excellence in communicable diseases.
Mission:	<ul style="list-style-type: none"> > To contribute to the control of communicable diseases through researching better methods of diagnosis, treatment and rehabilitation. > To transfer knowledge, skills and technology, gained through research, to public health staff, nationally and internationally. > To become a regionally and internationally recognised training institute in communicable diseases.
Strategy:	<ul style="list-style-type: none"> > To produce high quality research in the field of communicable diseases that will benefit the society within five years. > To become a nationally and internationally recognised reference centre for the diagnosis, treatment and rehabilitation of communicable diseases within five years. > To develop competency of staff in the field of communicable diseases by improving their knowledge and skills in academic standards of research and clinical management of communicable diseases within three years. > To increase the efficiency of services provided by the Bamrasnaradura Institute – with a measurable improvement in three years. > To develop the focus of the learning centre to training in communicable diseases within five years.

Table 1.1 Extracts from the Bamrasnaradura Strategic Plan 2004-2007

Table 1.1 outlines the current vision, mission and strategy of the Bamrasnaradura Institute for the period of 2004 to 2007.

Appendix 1 provides an outline of the key time points in the development and implementation of the TAACP.

THE ALBION STREET MODEL FOR HIV CARE AND PREVENTION

The Albion Street Centre is Australia's largest community based ambulatory care service for the care and support of patients with HIV/AIDS, their families and carers. The Centre delivers a model of care based

on the clinical activities of an integrated multidisciplinary team with the needs of the patient as the focal point of the service. The patient is assessed and then referred to clinicians within the multidisciplinary team who provide medical, nursing, psychological, nutrition and pharmacy services as required. This model aims to provide holistic, patient centred care in order to minimize hospitalisation and maximize quality of life.

Analysis of various HIV service delivery models have shown that community based models of care, like that practiced at the Albion Street Centre, is a cost effective means of providing care and treatment to

HIV positive patients (Donnelly, Starkey, and Stewart 1994). The community based nature of the service facilitates a continuum of care from the clinical setting to home-based care. Further, the model integrates care with prevention, in meeting the many challenges of the HIV/AIDS epidemic in Australia.

One of the key elements of this model is the strengthening and building of networks with other clinical service providers, with the scientific community and NGOs, and liaison with government at all levels.

The model also focuses on building the capacity of health care workers through emphasis on training and ongoing education, as well as the development of organizational structure including protocols and standard operating procedures that are time, cost and resource effective (Donnelly, Starkey, and Stewart 1994).

Over the past five years the key elements of the model have been adapted for utilisation as part of a number of specific projects in South East Asia, focusing on Thailand and the Mekong region. This adaptation has involved delivering core components of health care worker education in a culturally sensitive manner to meet local needs. Table 1.2 outlines the key elements of the ASC Ambulatory Care Model.

Characteristics of HIV ambulatory care
HIV specific
Standalone unit
One stop shop
Day care unit
Multidisciplinary care
Support services
Continuity of care
Family & carers are involved
Monitoring, care & procedures

Table 1.2 Key elements of the Ambulatory Care Model

THE MODEL AS ADAPTED FOR THAILAND

The TAACP aimed to establish a fully integrated ambulatory care model at the Bamrasnaradura Hospital to deliver quality clinical care for people with HIV/AIDS.

The project also aimed to support families and carers through the strengthening of health care worker training, organizational support and infrastructure development. The TAACP was AusAID funded and has been successfully audited and evaluated, including an internal QAG desk study, where project management gained the highest ranking of five (5, best practice) and an independent final evaluation.

The model of care employed at Bamrasnaradura Hospital was adapted to focus on cost-effective care options, including improving the knowledge and skills of health care workers to provide a range of core HIV/AIDS care services – although at the time, the majority of patients were unable to afford antiretrovirals

and many could not afford drugs to treat opportunistic infections.

The model has a number of important elements, many of which influence and benefit the broader hospital setting, including:

- > treatment of people with HIV/AIDS who are ambulatory as 'out-patients' wherever possible, thus reducing the pressure on hospital beds. Prior to the Project most AIDS patients requiring any treatment had to be admitted to hospital.
- > 'de-stigmatisation' of HIV/AIDS for patients, relatives and carers, and hospital staff.
- > 'up-skilling' of nursing staff so that they can perform more complex (and rewarding) roles. For example, the project trained various specialist nurses including triage nurses, nurse counsellors, nurse nutrition counsellors and infection control nurses.
- > improved service flow, including assessment and triaging of patients by nurses at presentation, who then promptly request appropriate diagnostic tests such as X-rays. As a consequence, by the time the patient is due to be seen by a doctor, key information is already available on which to base a medical assessment and to decide on appropriate treatment.
- > a wider range of services available to people with HIV (and other hospital patients) including counselling, nutrition advice, improved dispensing of pharmaceuticals, and accurate

identification and treatment of AIDS-related conditions.

- > increased attention to the needs and roles of families and other community support groups in the care and support of people with HIV.

THE IMPACT EVALUATION

The primary goal of the impact evaluation was to identify and document evidence for the sustained impact of the TAACP, given the intervening changes in the Thai health system and the epidemic. Particular emphasis was placed on the ambulatory care model and the training program as these were the original goals of the project. The evaluation examined aspects of the Bamras model of care that have changed since the project was completed in the year 2001 and the factors that have contributed. The Team also re-visited those aspects of the project that were previously not deemed fully successful.

In evaluating the medium to long term impact of the project, the key questions that the Team asked were:

1. HAS TRAINING AND EMPOWERING OF WARD-BASED CLINICAL STAFF IN CONDUCTING HCW TRAINING BEEN SUSTAINED?

One of the central aims of the project was to shift the HIV/AIDS training paradigm at Bamras (and hopefully in Thailand) away from the traditional approach where the most senior staff, who are typically in non-clinical administrative or academic positions,

conduct training sessions for junior clinical staff. The aim was to encourage more junior and clinically active staff to become trainers and mentors for their less experienced colleagues. The project selected clinical staff that were directly involved in patient care and over several years enhanced their teaching ability and capacity to conduct training programs for their peers. Project staff actively developed and contributed to training of trainers (ToT) sessions and mentored the junior staff until they were independently capable of conducting and evaluating training themselves.

This part of the impact evaluation aimed to assess the sustainability of the project outcomes in clinical training, including the number and type of staff conducting training, their skills development and the relationship between these staff, who come from all areas of clinical care (medical, nursing, counselling, nutrition) and the more senior staff. The Team also examined the capacity of Bamras to train their own junior staff to become trainers.

2. DOES THE BAMRAS AMBULATORY CARE MODEL STILL EXIST AS IMPLEMENTED DURING THE PROJECT?

The project was designed to introduce an additional dimension of HIV/AIDS care into the Thai context, particularly to provide for ambulatory HIV patients with later stage disease. This ambulatory care based model was designed to fill the gap in services between the acute-care emergency room and the in-patient ward and between the walking well and the hospitalised person with HIV. The program introduced the use

of nurse practitioners and other staff to conduct preliminary patient assessments, thereby maximising the value of the limited time doctors were able to devote to each patient, given the increased patient loads at the time. During the project, considerable effort was spent in helping to change the conventional attitudes of doctors to nurses and other health care staff (particularly their reservations about giving nurses more clinical responsibilities) and to provide these non-medical staff with appropriate clinical training and assessment systems.

The Team examined the Bamrasnaradura ambulatory care system and compared it with archival accounts and the previous evaluation (Plant, Mijch, Malau and Songwathana 2002).

3. HAS THE MODEL BEEN EXTENDED INTO OTHER SETTINGS? IF SO, HOW HAS IT BEEN ADAPTED?

The project was designed to establish Bamras as the National and Regional HIV/AIDS Training Centre for HIV/AIDS clinical care and support. Effort was invested in inviting professionals to visit the hospital and to establish linkages between Bamras staff and their colleagues in Thailand and the Mekong countries. Additionally, the model was implemented so that it could be readily transferred into community based health care settings and be adapted for smaller district and community hospitals.

The Team examined to what extent the Bamras model, and aspects of the model, had been applied to other clinical settings in Thailand. The level and capacity of staff

in other centres to become engaged in a multidisciplinary approach to HIV/AIDS care was also assessed.

4. HAS THE BAMRAS TRAINING PROGRAM BECOME SELF-FUNDING AND SUSTAINABLE?

The project aimed to develop the Bamras education and training programs into a self-sustaining fee-for-service centre. It was envisaged that Bamras would become a key site for training health workers from Mekong countries, where funding would be provided by international donor agencies. Funds raised through these education activities would be used to enhance staff development, patient care services and to provide for ongoing research and evaluation. A specific costing structure for training courses, based on that used by the Albion Street Centre, was introduced by the end of the project.

The impact evaluation determined to what extent the Regional Training Centre had become self-funding. Data collected included the amount of income generated through training activities and the amount of income obtained through government grants.

5. HOW HAVE THE IEC RESOURCES BEEN UTILIZED BY BAMRAS E.G. PRINTED INFORMATION SHEETS/LEAFLETS AND VIDEO?

During the original project, funding was made available for the development and production of IEC materials. It was envisaged that income generated from training activities might be used to continue developing, updating and printing IEC

materials after the project had been completed. In addition, during the final stages of the project AusAID funded the production of a video and printed materials that were distributed throughout Thailand and the Mekong countries to promote Bamras as a regional training and reference centre for HIV/AIDS. The video was released in English and Thai and was disseminated to 742 sites in Thailand only.

The impact evaluation examined the distribution and effectiveness of IEC and other promotional material and determined to what extent the materials had been a catalyst in the development of linkages between Bamras and other health services in Thailand and the Region.

6. WHAT IS THE STATUS OF ASPECTS OF THE PROJECT DESCRIBED IN THE PREVIOUS EVALUATION AS BEING 'PARTIALLY OR NOT SUCCESSFUL'?

At the project's conclusion, it was determined that the primary goal, to establish a fully integrated ambulatory care model, had been fully met (Plant, Mijch, Malau and Songwathana 2002). The second major goal – to assist in the development of Bamrasnaradura Hospital as a clinical reference centre and as a national and regional training centre in HIV/AIDS care – was determined to have been partially met. Other elements of the project were found not to have achieved their full expected outcomes.

Areas evaluated as being partially successful included:

- > 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 made drawing conclusions difficult; and,
- > The library, which had improved but was not greatly accessed.

Areas considered to have been unsuccessful included:

- > The establishment of links with academic institutions and other HIV/AIDS research and care institutions; and
- > The integration with other hospital activities (WHO) and with NGOs (MSF).

The impact evaluation team revisited these areas of the project to establish their current status.

7. HAVE THERE BEEN ANY ADDITIONAL OR UNEXPECTED IMPACTS ON THE HOSPITAL THAT MAY HAVE AFFECTED THE MODEL OF CARE?

The impact evaluation identified a number of unexpected factors which influenced the ability of the hospital and hospital staff to provide care for people living with HIV/AIDS and to deliver training. These outside influences have in some cases been detrimental to the provision of multidisciplinary care, while others have positively influenced the health outcomes of Bamrasnaradura Institute patients.

2 Study Methods

SUMMARY

The present study uses standard methods developed in the social sciences and management research fields to evaluate the impact of the TAACP. The challenge, which made the study less usual among development studies, was the focus of the study on evaluating sustainability and impact, in particular, whether it was possible to document any ongoing influence of the project several years after its completion. In order to examine this possibility, it was necessary to place chronological data at the core of the analysis and to focus the data collection on documenting processes. Preliminary meetings were held between key AusAID personnel, Albion Street Centre staff and senior Thai counterparts to reach agreement on how the study should proceed. The study questions were then developed and refined and, once agreed on, provided the basis for developing the study methodology. It was considered that the study team should consist of a project 'insider' (Charmaine Turton), a member

of the project evaluation team (Praneed Songwathana) and an external reviewer as team leader (David Plummer). Each of these members was chosen to broaden the perspective and analytical expertise of the study. The project 'insider' brought a detailed working knowledge of the project to the table; the previous evaluator provided a baseline view of the project outcomes at the termination of the project; the external reviewer provided experience in HIV and development, but had no vested interests in the project. The research team consulted together on various occasions during October 2004, reviewed prior documentation from the project, clarified their respective roles and finalized an activity/work plan. The principal data collection phase occurred during a field visit to Thailand by the Team in late November and early December 2004.

APPROACH

Standard techniques developed for social sciences and management research, were used in this study (Owen & Rogers 1999; Sarantakos 1993; Ritchie & Lewis 2003; Layder 1993). The main research aim was to discern and document, where it exists, evidence for impact of a project several years after the project was completed. The study was conducted in three principal phases: preparation and planning; data collection and analysis and reporting.

The principal study questions that the Team was requested to examine are listed below (a detailed version can be found in Appendix 2).

- > Has training and empowering of ward-based clinical staff in conducting HCW training been sustained?
- > Does the Bamras Ambulatory Care model still exist as implemented during the TAACP?
- > Has the model been extended into other settings? If so, how has it been adapted?
- > Has the Bamras training program become self-funding and sustainable?
- > How have the IEC resources been utilized by Bamras e.g. printed information sheets/leaflets and video?
- > What is the status of aspects of the project described in the previous evaluation (Plant, Mijch, Malau and Songwathana 2002) as being 'partially or not successful'?

In essence these questions required the Team to examine the current state of the core elements of the original project and compare them with the status when the original

project terminated – that is, to evaluate the status of the Bamrasnaradura HIV/AIDS Ambulatory Care Unit; the status of the Bamrasnaradura clinical training program; extension of clinical and training models beyond the Bamrasnaradura Institute; and the status of those elements of the project that were considered not to have fulfilled their potential during the original project according to the project evaluation (Plant, Mijch, Malau and Songwathana 2002).

In order to examine these questions, various data collection methods were required: observation, document review, statistics, and individual and focus group interviews. In addition, it was necessary for the sampling strategy of the study to reflect the requirements implicit in the study questions (Owen & Rogers 1999; Ritchie & Lewis 2003). In particular, in order to evaluate impact, sampling had to take into account chronological events, thereby facilitating the comparison and analysis of project outcomes at different times. It was also necessary for sampling to be purposive, that is, to target particular elements of the project where sustainability was most likely to be detectable and to collect data which could be used to document a mosaic of project outcomes in order to produce as rich a picture as possible. Finally, the data was subjected to continual reflection and preliminary analysis as the project unfolded and sampling and data collection was progressively modified as various possible explanations emerged that needed testing and elaboration (Layder 1993).

Steps were taken throughout the study to ensure the validity of the study findings. The study was grounded in careful planning

and review of the archives from the original project. The study questions relate closely to the original aims and activities of the TAACP and reflected the requirements of an impact evaluation. In keeping with standard qualitative techniques, accounts were verified wherever possible and triangulation was achieved by comparing and contrasting data from more than one source. Moreover, the emerging picture was elaborated on by actively seeking confirmatory and variant cases; and negative cases were also sought and explored to ensure that emerging explanations were adequate and conclusions justifiable. While it was neither possible, nor valid, to compare the Ambulatory care model used at Bamrasnaradura with the experience of other institutions (almost as a 'control' case), it was both possible and meaningful to compare the same institutions at two different time points. These comparisons using a chronological timeframe in consort with validated qualitative data permit meaningful analysis of processes, including sustainability and medium/long term impact.

Finally, although it wasn't explicitly required in the study brief, the Team agreed in principle to carefully explore unexpected outcomes and to document lessons learned in order to maximize the value of the study for both Australia and our Thailand counterparts.

PREPARATION AND PLANNING

Preparation and planning occurred principally during the 2004 calendar year. Some delays were experienced in identifying and recruiting suitable team members; and in order to accommodate the XV

International AIDS Conference, which was held in Bangkok in July 2004.

Preliminary agreements on the desirability of the study and the study strategy were negotiated between AusAID, the Albion Street Centre and Thai counterparts in the Ministry of Public Health and the Bamrasnaradura Institute, which resulted in the signing of a memorandum of understanding. The team members for the study included Associate Professor David Plummer (University of New England), Associate Professor Praneed Songwathana (University of Songkla) and Ms Charmaine Turton (Albion Street Centre). Support staff included Mr Anusorn Quamman (health interpreting); designated staff from the Bamrasnaradura Institute, Bangkok; and designated staff from the Albion Street Centre, Sydney.

Consultations between the team members and support staff commenced in October 2004 and were conducted by e-mail, telephone and face-to-face meetings. These consultations involved reaching agreement on the roles that team members would play; reviewing the archives from the project; identifying key personnel and stakeholders who could contribute to the study; and identifying potential sites that could be visited during the data collection phase. Key stakeholders to be interviewed and sites to be visited were identified as suitable if they had roles relevant to the TAACP and/or had participated in any of the activities established during the project, such as training, staffing or study tours. Certain provincial sites initially identified as suitable were excluded because field visits were not feasible within the timeframe and budget of

the study; and similar facilities were already covered in the data collection strategy.

In light of the above consultations and document review a draft work plan and activity schedule was prepared. A draft interview guide was also developed, based on the principal study questions. A copy of the study questions, the interview guide and a list of sites visited are included in the appendices of this report (2, 3, 8 and 9). In accordance with established social science research methods, this interview guide was open ended and was intended to be modified as the study unfolded and the preliminary data analysis provided useful leads or suggested possible new explanations (Owen & Rogers 1999; Sarantakos 1993; Ritchie & Lewis 2003; Layder 1993). The approach constitutes a form of purposive sampling known as 'theoretical sampling'. When competing commitments precluded personal consultation with certain key stakeholders a brief e-mail questionnaire was sent for them to complete at their leisure. A list of people approached and representative e-mail questions are included in Appendix 10.

DATA COLLECTION

Data was collected from a wide range of sources: documents, statistical databases, field observation, interviews and focus groups. This approach allowed the study to access a comprehensive data set on which to base the analysis. Moreover, soliciting data from multiple sources adds to the richness of the picture gained and cross-checking contributes to the validity of the conclusions.

While the archives for the project were built up over a period of many years, and extensive

review of the documentation was undertaken in the preparation and planning phase of the project, the principal sources used in this report were obtained during two field visits to Thailand. The first was conducted during August 2004. This visit involved collection of information from a range of departments within Bamrasnaradura Institute to assess the current activities and service delivery changes since the completion of the project. Semi-structured interviews were conducted and written documentation was collected related to administration, medical, nursing, counselling, library, laboratory, research, pharmacy and training departments. This information assisted in the development of the draft work plan and activity schedule. Observation and evaluation of two training courses facilitated by the Bamrasnaradura staff also occurred during this first visit. During this period a survey was developed, translated and distributed to 742 sites throughout Thailand. This survey was designed to assess the impact of a training package that had been sent to these sites in late 2001 to promote the Bamrasnaradura Institute.

The second field visit was in late November and early December 2004. It was split into two main components. The first week involved visiting regional and urban hospitals and health services in the Mid North and Eastern Thailand and in and around Bangkok. A schedule of visits and a list of locations is provided in Appendix 9. As indicated above, the locations were chosen because of their potential to provide evidence of the external impact of Bamrasnaradura activities. In each case, staff from the local health service were

known to have attended training programs that were originally developed during the TAACP at the Bamrasnaradura Institute. The purpose of these visits was to examine local HIV/AIDS care arrangements and to document the interactions and experiences of staff with the ambulatory care and training services available through Bamrasnaradura. In particular, the investigators were keen to discern whether contact with Bamrasnaradura had any substantive impact, including new knowledge gained, whether knowledge was subsequently transferred to others, if there was evidence of changes to individual clinical practices and whether any systemic changes had resulted, such as modifying and developing institutional policies and procedures. In each case interviews were conducted with multiple personnel, both in focus groups and individually to ensure a comprehensive account and to resolve any differences. Moreover, after the interviews, site visits were made to wards and clinics and documentation was reviewed in order to complete the picture and to confirm (triangulate) the interview data.

Field notes were completed for all visits, and most interviews were recorded on a digital audio recorder. Participants were given the option of providing confidential or off-the-record feedback and it was also explained that in the event of unearthing sensitive issues, identifying details would not be revealed, and that recordings would be used for analytical purposes only. In the case of informants who became unavailable during the course of the study (usually due to competing commitments) an abridged e-mail questionnaire was developed

(Appendix 10). This questionnaire had a number of advantages including: busy informants could complete it at their leisure; a written record was obtained; travel to remote sites could in some cases be avoided; tight schedules and hectic programs could be managed more efficiently. Nevertheless, the Team did become aware of the importance of confirming interview data with site visits – it was clear that data collected by e-mail should not be used indiscriminately nor uncritically and was not a reliable substitute for confirming details with site visits and observation.

ANALYSIS AND REPORTING

The standard qualitative social science approach of conducting progressive (preliminary) analysis as the project unfolds was followed for this study (Owen & Rogers 1999; Sarantakos 1993; Ritchie & Lewis 2003). Field notes were collected and supplemented on a daily basis with reflections and possible directions to pursue. Interview guides were constantly varied in response to the emerging data. In the search for variant and negative cases which required further explanation, new informants were also sought during the project according to theoretical sampling principles.

Write-up was undertaken about a month after the visit. This provided a useful period to get some distance from the data and to work through the major findings. Once a draft report had been prepared it was circulated extensively internally prior to being peer reviewed and then submitted to AusAID for official release.

3 Status of the Bamrasnaradura Ambulatory Care Model

SUMMARY

The ambulatory care model developed by the TAACP between 1997 and 2001 continues to operate successfully and to provide significant benefits. In the Bamrasnaradura Institute itself, the core elements of the project remain intact and are functioning well, albeit with adaptations made necessary by a changing epidemic. The services currently provided under the auspices of the Bamrasnaradura ambulatory care system are both multidisciplinary and client-oriented; however there is some evidence that the delivery of certain training activities is becoming increasingly professionalized, at the expense of contributions from people with HIV. The reviewers note that this is a recognized problem in professionalized settings and is not confined to the Bamrasnaradura Institute, nor to Thailand. Outside of the Institute there is clear evidence that elements of the Bamrasnaradura ambulatory care model are being deployed by regional and community health services.

It was reported by Ministry of Public Health officials that the TAACP has been used as a model for policy development, most notably in the Thai Comprehensive Community Care (CCC) policy initiative.

THE BAMRASNARADURA AMBULATORY CARE MODEL

CLINICAL SERVICES STRUCTURE AND FUNCTION

The Bamrasnaradura Institute is located in the grounds of the Thai Ministry of Public Health precinct in Nonthaburi. The Institute specialises in treatment of, research in, and education about infectious diseases. An organizational chart for the Institute can be found in Appendix 4. Most HIV care at the Institute is delivered in one of several multi-story buildings on the hospital campus. The ground floor of this building is occupied by the HIV/AIDS Ambulatory Care Unit (ACU). The ACU occupies the entire floor and is arranged along an axis with patient

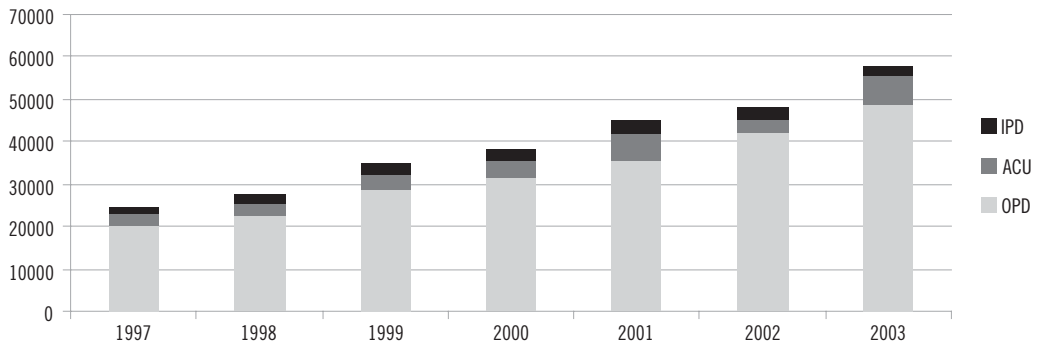


Table 3.1: Services to HIV-infected patients – Bamrasnaradura Institute 1997-2003

consultation desks, examination couches and day procedure beds along the left and store rooms, interview rooms, family rooms, nursing stations and offices running along the right of the floor as you enter.

The HIV inpatient wards are located on the floors above. They follow a similar arrangement to the ACU. Patient accommodation runs down the left axis of the floor and preparation rooms, interview rooms, family and counselling rooms and the nursing and clinical station occupies the right side of the floor. There are two principal male wards for HIV, one female ward and an additional ward which has a special role in managing people with tuberculosis and HIV and it also takes overflow from the other HIV wards. This ward has a limited number of single rooms where respiratory isolation procedures can be implemented for patients with open pulmonary tuberculosis. The wards were not over-crowded and all wards had at least one metre space around beds to make infection control more efficient and to minimise the risk of cross infection. This is in contrast to other hospitals that the Team visited, where overcrowding has resulted in beds being fairly tightly packed (spaced less

than one metre apart) and the cross-infection risks are much more evident.

Medical Ward rounds are usually conducted twice per day during weekdays (morning and afternoon) and each morning at weekends. Although the medical ward rounds are not truly multidisciplinary, the nurse-in-charge does accompany the doctors and nurses also undertake their own rounds which a counsellor or psychologist will attend if available. Additionally one counsellor is rostered to inpatient consult cases (the psychologist provides cover when needed) and in the evenings the ER nurse (nurse/counsellor) can provide counselling. If the counsellor judges that a patient needs nutrition counselling they will refer to the nutrition nurse counsellor. Doctors and nurses will also refer, although nurses are trained to provide basic nutrition counselling for patients.

Collaboration between the ambulatory care and inpatient units is professional and comfortable. Referral between the sections seems to occur readily. There is reportedly greater communication between departments and professions

Year	Ambulatory Care Unit	Inpatient HIV Positive	Outpatient HIV Positive	Outpatient Non-HIV
1997	2,701	1,774	20,006	177,499
1998	3,449	2,162	22,130	180,992
1999	3,718	2,522	28,541	161,061
2000	4,193	3,015	31,216	164,598
2001	6,654	3,205	35,360	175,898
2002	3,082	3,184	42,086	230,535
2003	6,684	2,441	48,780	187,868

Table 3.2 Patient attendances Bamrasnaradura Institute 1997-2003

(The Institute did not explain anomalies in the statistics)

about patients in recent years (through ward rounds, patient care team approach, informal discussions and regular case conferences). In close proximity to the ACU, are the clinical extension and support services, including counselling, social work, nutrition and peer support (the Candle Light for Life Club). Laboratory, pharmacy and diagnostic imaging services are located on the same campus within easy access of the ACU in adjacent buildings as are the other inpatient and outpatient services offered by the Institute.

A notable feature of the Bamrasnaradura Institute (and other clinical services that the Team visited) was the presence of a range of formal guidelines, and protocol and procedure documents. These documents cover a wide range of topics and most appear to be up-to-date. A list of policy and procedure documents inspected by the Team at the Bamrasnaradura Institute can be found in Appendix II. As we will see later, the impetus for developing these documents appears to have been the pursuit of ISO

9001:2000 accreditation (see www.iso.org). Nevertheless the Team concluded that the documentation developed during the TAACP preceded and formed the foundation for many of the current HIV policies and procedure documents.

The clients of the ACU enjoy access to the general inpatient and outpatient services of the hospital and these services often provide care for people with HIV. In particular, people with HIV had regular access to the emergency department and HIV positive pregnant women obtained care from obstetrics.

The outpatient department offers medical clinics in the following streams:

- > General medicine
- > Surgery
- > Orthopaedic
- > Urology
- > Paediatrics
- > Obstetrics and Gynaecology

- > Dental Clinic
- > Ophthalmology
- > ENT (Ear, nose and throat)
- > TB Clinic
- > Antiretroviral Clinic (increased from once a week to seven days per week with doctors, pharmacist, counsellors and nurses working together to help improve adherence and detect early signs of side effects etc.)
- > Prevention of Mother to Child Transmission (PMTCT) programme

The outpatient system of patient management has not changed significantly from that documented in the final evaluation (Plant, Mijch, Malau and Songwathana 2002:15) with the exception that nurse practitioners no longer appear to be involved in outpatient management. Patients are still screened by a screening nurse and directed to the most appropriate place. If they do not have an appointment the triage nurse first collects basic information including a medical history and a description of symptoms. The patient is then seen by the doctor who may send the patient for a lab work up, after which the patient may return to the doctor. If a second doctor visit is not required the patient may be referred back to the nurses if there is need for any further discussion or patient education.

New clients and emergencies are generally seen in the afternoon; follow-up patients are usually seen in the morning. Doctors run a 'user pays' after hours service (between 4.50 pm and 8 pm Monday to Friday and 9 am and 12 pm Saturday and Sunday) at the hospital for a fee of 150 Baht.

Table 3.1 shows the number of HIV/AIDS patients in outpatient and inpatient areas 1997-2003. One of the main aims of having an ambulatory care unit was to help to reduce the number of inpatients. Statistics in Table 3.2 indicate a decrease from 2002 to 2003. Whether this is the start of a new trend or is just an aberration in a trend of increasing HIV inpatients is yet to be seen. It may also be a reflection of the increasing availability and affordability of antiretroviral therapy, improving the health of people with HIV in Thailand.

CLINICAL EXTENSION AND SUPPORT

While the core clinical services for people with HIV are provided by designated nursing and medical staff, the care provided for people with HIV at the Bamrasnaradura Institute is multidisciplinary: additional services are provided by counsellors, social workers, nutrition advisors and pharmacy advisors. There is also an HIV peer-support organization called the Candle Light for Life Club based in the hospital. The club has staff, volunteers and a designated space in the hospital. While some of these multidisciplinary services were available prior to the TAACP, it is clear that this multidisciplinary approach was formalized and organized largely as a result of the TAACP.

Support is provided for the clinical services by the pharmacy, diagnostic imaging and laboratory services. The diagnostic laboratories at the Bamrasnaradura Institute provide core diagnostic procedures for HIV and related opportunistic diseases. The laboratories also provide key tests for

monitoring HIV progression, including CD4 counts.

The pharmacy dispenses a range of HIV-related medications including drugs for the prophylaxis of opportunistic infections; for treating AIDS-related complications; and combination HIV antivirals. Specialised advice and counselling is provided by nursing, counselling and pharmacy staff on dosage, administration, side effects and compliance. The pharmacy has also been involved in revising and developing new information materials on antiviral treatment.

POLICIES, PROTOCOLS AND STANDARDS OF PRACTICE

In 2000 Bamrasnaradura Hospital achieved ISO 9001:2000 accreditation. In preparing for accreditation, the hospital made maintaining, updating and developing policies, procedures and standards of practice a priority. Much of the documentation relating to HIV was originally developed with assistance from the TAACP. Since the completion of the project the number and type of policies, protocols and standard operating procedures has increased. The documentation reflects Thai health policies and development and formats provide evidence of the legacy left by the project. Introduction to general hospital policies, protocols and standard operating procedures form part of the orientation training which is held an average of three times per year.

Relevant policies and procedures are kept at individual wards/stations along with copies of hospital wide policies, for example 'Prevention of Fire'. Copies of all policies and procedures are also kept in the ISO Centre (known as the Quality Development Control Centre).

The Team sighted many of the available general hospital and departmentally specific policies, protocols and standard operating procedures. A list is available in Appendix 11.

Practical evidence of staff adhering to policies and procedures was found in the occupational exposure statistics for the hospital, which show a decrease in exposures to HIV infection from 1999 (Table 3.3). However, the initial increase in exposures from 1997 was due to the implementation of reporting policies within the hospital and reflects increased reporting of exposures and not necessarily increased occurrence of exposures.

YEAR	NUMBER OF EXPOSURES
1997	17
1998	20
1999	21
2000	18
2001	13
2002	16
2003	10

Table 3.3 Reported occupational exposures 1997-2003

PERSONNEL

It was notable that many of the senior staff working in the HIV/AIDS units have done so for years and are more highly experienced.

The atmosphere in the units was caring and the team approach was cohesive. Apart from hints at minor differences, the morale among the HIV clinical staff appears to be good.

The clinical skills among the senior nursing and medical staff appear to be highly developed. There is a notable emphasis on providing access to and support for the use of HIV antiviral medications. This level of priority afforded to antiviral medications appears to not have been present when the TAACP was in operation. At that time, antiviral combinations were more limited and mechanisms for access were less well organised. At least in part these changes appear to have taken place as a result of the WHO program to promote HIV treatment, known as the '3 by 5 program'.

The increase in antiviral usage seems to be having similar impacts on the AIDS landscape at the Bamrasnaradura Institute as has been seen in the West. Staff from the Ambulatory Care Unit and the inpatient wards report seeing fewer patients with severe or complicated presentations and are increasingly dealing with monitoring, antiretrovirals, compliance and managing side effects. Clinical staff indicated that the emotional pressure on them had reduced as a result. Nevertheless, there are ongoing issues with late presentations of advanced unsuspected disease. Additionally, the number of eligible people who are taking antiretrovirals is still a long way from its full potential.

The day-to-day organization of the wards and clinical areas is largely under the direction of the nursing staff in charge. Most of the clinical areas that the Team visited were very well organized, and it was apparent that careful attention was being paid to protocols and clinical systems designed to minimize both nosocomial³ and occupational exposures. The development and maintenance of up-to-date policies and protocols has obviously been a priority for the Bamras Institute.

³ Originating or spreading in a hospital.

Department	1997			2000			2003		
	Staff	Workload	Ratio	Staff	Workload	Ratio	Staff	Workload	Ratio
Ambulatory Care Unit	5 (1 doctor; 2 reg. nurses; & 2 other nurses)	2701 patients	540 patients/staff	6 (1 doctor; 3 reg. nurses; & 2 other nurses)	4193 patients	698 patients/staff	5 (1 doctor; 3 reg. nurses; & 1 nursing aide)	6684 patients	1336 patients/staff
Nursing Staff Inpatient Wards	3 reg. nurses & other technical nurses	30 beds	10 beds per reg. nurse	7 reg. nurses & other technical nurses	30 beds	4.3 beds per reg. nurse	7 reg. nurses	26 beds	3.7 beds per reg. nurse
Pharmacists (NB data for 1997 and 1999)	26 pharmacists & assoc. staff	197,212 scripts	7585 scripts/staff	26 pharmacists & assoc. staff	217,056 scripts	7235 scripts/staff	27 pharmacists & assoc. staff	237,150 scripts	8783 scripts/staff
Counselling	5 counsellors	4781 services	956 services/staff	number of counsellors N/A	8233 services	N/A	15 nurse counsellors	14399 services	959 services/staff
Laboratory TB tests		~3000			8300		19	1960	103

Table 3.4 Clinical staffing and workload Bamrasnaradura Institute 1997, 2000 and 2003

Year	Individual	Telephone
1996	2714	-
1997	4171	610
1998	4399	1680
1999	5287	1567
2000	6583	1650
2001	6515	1936
2002	6183	1686
2003	6172	1553

Table 3.5 Trends in individual and telephone counselling

The multifunctional roles of ‘Nurse Counsellor’ and ‘Nurse Nutrition Counsellor’ continue to be utilised. In addition nurses are taking on other roles such as in research and training. During the TAACP there was a strategy to develop specialist nurse practitioners in the HIV ambulatory care unit of the Bamrasnaradura Institute. Introducing nurse practitioners into the clinical staff mix was an attractive model because it offered the possibility of relieving the growing burden of HIV on the medical staff while simultaneously improving nursing skills and job satisfaction: both of which ultimately benefit patient care and make for a more efficient patient flow. In the Bamrasnaradura context, the nurse practitioner role was envisaged as being able to provide clinical assessment, ordering key diagnostic tests including blood tests and x-rays. The results of these investigations would subsequently be available for the OPD medical consultation. It appears however, that nurse practitioners are currently only undertaking their expanded role within the Ambulatory Care Unit. Under medical supervision

nurse practitioners are performing patient assessments and certain medical procedures, including lumbar punctures.

While there are currently some senior nursing staff that hold nurse practitioner status recognised within the hospital; and staff working in the ambulatory care unit do carry out the nurse practitioner role outlined above, their current status as nurse practitioners still lacks clarity. This was also reflected in the lack of any written documentation outlining the role. There are several reasons for this situation. The status of nurse practitioner as developed through the TAACP is largely an internal creation. At a national level moves are afoot to formalise nurse practitioner status based on advanced university-based training at a Masters Degree level. Given that nurse practitioner training has not been available to staff since the conclusion of the project, the role of nurse practitioner is not sustainable through the Institute itself. However, given the development of courses to achieve nurse practitioner qualifications through university level training, current senior nurse practitioners at Bamras will likely be superseded by those with formal and nationally recognised qualifications.

In light of the preceding comments, it is important to note that the staff focus group observed that medical staff at the Institute had come to embrace the role of nurse practitioner. In particular, the role of the nurse practitioner in ordering relevant laboratory work ups for the patient before being seen by the doctor had now become part of the ACU clinical routine. Nursing staff noted that doctors now seemed to prefer this way of working as it is efficient

and improves patient flow. The Team understands that there has been a distinct shift in attitudes since the end of the project. At that time, medical staff had reservations about giving nurses more clinical responsibilities.

In addition to ward rounds, staff also have regular case conferences (which usually occur during the lunch break due to time restrictions) and once a month there is a Patient Care Team (PCT) meeting. The PCT usually consists of a doctor, nurse, counsellor, psychologist, pharmacist, social worker, nutritionist, and often a physiotherapist. Staff noted that the PCT meetings were a useful means of problem solving especially in cases where patients have more complicated problems. Staff indicated that PCT meetings could also be called when patients were in crisis so that solutions could be found more expediently. Staff also discussed the fact that PCT meetings were important for accreditation. PCT teams exist for a number of departments including: paediatrics, medicine, surgical and obstetrics gynaecology.

It was noted however, that as far as supervision was concerned (as part of ongoing education) the counsellors and psychologist at Bamras did not have access to a clinical supervisor from within the hospital and so Bamras organised for an outside psychologist from the Department of Mental Health to provide this service. As Bamras has to pay for this service supervision does not occur often and there was no organised program of supervision for these staff.

Staff indicated that staff shortages were still an issue within the hospital. A 'downsizing' policy meant that staff who left the hospital were not replaced. This situation does not seem to have changed since the completion of the project at which time there was a 'staff freeze'. Moreover, available positions were only able to be offered as casual positions. These positions are not as appealing as they do not have the security or the entitlements that permanent positions do. As of November 2004 it became a requirement that all new staff have individual job descriptions that are signed by the relevant employee. These are kept on file in the Human Resources Department (Personnel).

CLIENTS, FAMILIES, SIGNIFICANT OTHERS AND CARERS

The study team interviewed representatives of the Candle Light for Life Club in order to gain access to the perspectives of clients.

The Candle Light Club was established prior to the TAACP. The purpose of the club is to provide advocacy and support for people with HIV. The club has designated offices / meeting room in the Bamrasnaradura Institute. The setting is friendly and comfortable and there is education and health promotion literature available as well as tea and coffee facilities. The club is staffed by volunteers and supported by hospital staff, particularly from counselling and social work.

The study team interviewed five (5) representatives of the Candle Light for Life Club, both male and female, in a focus group format in order to gain access to the

perspectives of the clients. The study team solicited opinions on HIV in general and the services and staff at the Bamrasnaradura Institute in particular. It should be borne in mind that the club is the key advocacy group for people with HIV at Bamrasnaradura Institute and would be expected to be aware of quality of care problems if they exist. Yet, although the participants were given plenty of opportunity to make constructive criticisms about the Institute, negative comment was uncommon. Some feedback was given that patients normally experienced a 'bottleneck' and delays at the pharmacy. Apart from this, the Team was left with the clear impression that the services received from the Institute were valued by people with HIV, that the staff were appreciated and that there did not appear to be a systemic problem with discrimination. On the other hand, if stigma or individual staff prejudice did exist, for example in terms of accessing surgery or emergency care, then there was no evidence that those issues featured in the clients view of Bamras or impinged heavily on them.

Both participants and staff indicated that family, carers and significant others were involved in care where appropriate and that their needs were attended to.

CHANGES SINCE THE END OF THE JOINT PROJECT

ISO 9001:2000 ACCREDITATION

The national push for health care institutions to gain accreditation under the ISO 9001:2000 system seems to have encouraged revision and further

development of policies, procedures and clinical guidelines. In the HIV area, many of these documents are based on those originally developed by the TAACP. The review team is of the opinion that the ISO accreditation system has contributed substantially to the sustainability of documentation and protocols originating from the original project.

NURSE PRACTITIONERS

The drive to develop the nurse practitioner role at the Bamrasnaradura Institute is likely to be superseded by events occurring in professional and academic circles at a national level. These events may well have contributed to the ongoing lack of clarity about nurse practitioners internally at Bamras. There is a possibility that the HIV-specific practice-based nurse practitioners in the Institute may be superseded by these larger events, in part because Bamras does not have a formal university affiliation like other teaching hospitals.

ANTIVIRALS AND A CHANGING CLINICAL LANDSCAPE

The introduction and growing availability of combination HIV antiretroviral therapy (ARV) has reportedly altered the clinical profile of patients accessing services at the Institute. Clinical services such as the outpatient department now provide more monitoring for relatively well patients and there is less pressure from serious complicated advanced disease, although late presentations continue to be a problem. Group and individual counselling has

been expanded to cover treatment of naive patients as part of the increasing role of the antiretroviral clinic (NAPHA 2004 Project).

The ARV clinic was established in 1997 as part of a project called ARVPROT 1. The counselling unit was involved in providing both group and individual counselling to patients as part of this project. At the time of the AusAID evaluation of the project (Plant, Mijch, Malau, Songwathana 2002) there were four ARV projects. At the time of the impact evaluation in 2004 there were eleven ARV projects, including the ATC 2001 project and the NAPHA 2004 project. These projects also use the ARV clinic. As a result the clinic has expanded from one day per week to seven days per week, the number of patients gaining access to ARVs through the hospital has increased and so has the demand for counselling regarding adherence, side effects and symptom management.

- > introduction of counselling (by social worker) for patients in the TB clinic
- > increase in community education e.g. presentations in schools and other community facilities

Review of the counselling unit data found that some types of ‘occasions of service’ had decreased since the project, particularly with respect to individual inpatient counselling and nutrition-related counselling (see Table 3.7). According to staff this was due to the introduction of, and demand for, other services such as counselling of patients attending the ARV Clinic. During these counselling sessions however if other needs were identified, such as nutrition counselling or patient education, appropriate referrals were made. In contrast, the number of occasions of service for children in both the inpatient and outpatient areas has increased.

COUNSELLING SERVICES

The range of services now offered through the Counselling Unit is shown in Table 3.6. Changes to services since completion of the project include:

- > less occasions of service of inpatient counselling
- > withdrawal of group counselling for family and carers of inpatients
- > introduction of individual counselling for family and carers of children with HIV
- > introduction of individual counselling for patients of the ARV clinic

Worker	Clients	Service
Counsellors	Individual	Inpatients Outpatient pregnant women and husbands (PPTC) and gynaecological Inpatient pregnant women Individual nutrition Quit smoking Hotline (telephone counselling) ARV project – NEW Children with HIV/AIDS and parents/carers – NEW
	Group	Outpatients: <ul style="list-style-type: none"> > only occasionally for ARV clinic since recent introduction of individual counselling > family counselling (members are all one family of patient) Candle Light Club according to program Pre-test counselling – pregnant women
Social worker	Individual	Socio-economic counselling Hotline (telephone counselling) Assistance with treatment fee Assistance in kind Referral Assistance with accommodation TB clinic
Psychologist	Individual	Referral Family members Inpatients Emergency/crisis counselling Psychiatric/mental health consultations

Table 3.6 Counselling services - Bamrasnaradura Institute 2003

CONCLUSIONS

Does the Bamras ambulatory care model still exist as implemented during the project?

For all intents and purposes, the services provided by the ambulatory care unit are the same as they were at the end of the project. Ambulatory care continues to bridge the gap between general outpatients and inpatients

in that it provides specialised day patient care in designated facilities from a dedicated team at a higher level than standard outpatient consultations do; and depending on test results and responses to treatment, there is the option of transferring patients to an inpatient ward at the end of the day.

	Nutrition Assess. & Mngmt	Counselling about HIV/AIDS				Total
		Pre-test	Post-test	Advice	ARV Project	
Oct. 2003	13	42	25	59	20	146
Nov. 2003	10	35	18	41	28	122
Dec. 2003	10	42	31	48	0	121
Jan. 2004	15	48	42	69	29	188
Feb. 2004	6	36	27	61	0	124
Mar. 2004	9	47	27	70	9	153
Apr. 2004	4	29	14	37	48	128
May 2004	3	42	36	44	30	152
Jun. 2004	5	37	25	49	49	160
Total	75	358	245	478	273	1,294

Table 3.7 Occasions of service by Nurse Nutrition Counsellor Oct 2003–June 2004

Is the model still multidisciplinary, i.e. what are the services being offered to people with HIV, their family and carers?

The Bamrasnaradura Institute offers people with HIV, their family and carers, a range of clinical services in inpatient, outpatient and ambulatory care settings. These clinical services are supported by the Pharmacy and Laboratory departments. As part of the clinical care available at Bamras, patients, families and carers have access to a range of multidisciplinary services including:

- > Medical services such as dermatology, ophthalmology, antenatal care, surgery, paediatrics, obstetrics, gynaecology, ENT, dental, physiotherapy ambulatory and emergency care
- > Nursing care including patient education sessions and individual patient education
- > Counselling services (as per Table 3.6)
- > Pharmacy services including pharmaceutical counselling
- > Peer support (Candle Light Club)

Referral between the units has improved according to staff and patients are more able to access multidisciplinary care according to their needs.

Has the model been replicated in any other health care facilities that treat/care for HIV infected patients, particularly at district and community hospitals and within community-based organizations?

Staff from various health services across Thailand have attended clinical training courses at the Bamrasnaradura Institute (see discussion about extension of the program in subsequent chapters). In addition, health workers from other countries in the region have been funded to attend training, largely because of the endorsement of the Bamrasnaradura Institute as a WHO Regional Training Center. As will be demonstrated in the following chapter, there is clear evidence that this training has indeed shaped the knowledge, practice and systems of the recipients. However, perhaps not surprisingly, the Team was not able to document a case of ‘replication’ of the

ambulatory care model. It is likely that local factors (such as low HIV case loads, mixed wards and lower numbers of staff) preclude the transfer of the Bamras Ambulatory Care model as a whole. Instead, elements of the Bamras training and aspects of the ambulatory care service were deployed in a modular fashion according to the course module that the trainee attended and the needs and priorities of their home service.

What are the roles of staff within the unit? Are staff still providing multi-functional roles e.g. nurse counsellors? Is there any blurring of roles and responsibilities? Is there any unnecessary repetition of procedures including data collection?

The unit provides multidisciplinary services. As was noted above, the multifunctional roles of 'Nurse Counsellor' and 'Nurse Nutrition Counsellor' continue to be utilized. Nurses are also taking on other roles such as research and training. Specialist nurse practitioner roles in the HIV ambulatory care unit of the Bamrasnaradura Institute exist in limited numbers but the future of these roles is unclear and may be overshadowed by national trends. Duplication of functions was not observed on any scale and does not seem to be a problem.

Are protocols and procedures developed during the project still being adhered to? Are they easily accessible to staff and are they used as part of ACU unit staff orientation/training.

Policies, protocols and standard operating procedures developed during the project have been maintained and updated. New documentation continues to be produced. Bamras staff were both aware of the policies and procedures and had ready access to

them. Practical evidence of staff adhering to policies and procedures was found in the occupational exposure statistics for the hospital.

4 Status of Bamrasnaradura Clinical Training

SUMMARY

The Bamrasnaradura clinical training program continues to deliver quality training to clinicians at the Institute, elsewhere in Thailand and for workers from the region. Many of these programs were developed directly as a result of the TAACP, although the course content has been updated and revised after the project concluded. These modifications have been in response to health care sector reforms, consumer feedback, an evolving HIV epidemic and new and emerging diseases such as avian influenza, multi-drug resistant tuberculosis and SARS. Professional staff, including grass-roots service providers, continue to be actively involved in program delivery. Moreover, there is clear evidence that participants benefited from the program on return to their home institutions. Indeed, there were recurring accounts from participants that the training empowered them. As a result of attending the Bamrasnaradura clinical training programs, attendees reported:

- > improving their knowledge and attitudes;
- > developing greater professional confidence and clinical skills;
- > modifying their personal work practices in constructive ways;
- > passing their knowledge on to their colleagues by debriefing, ward meetings and professional seminars after the course;
- > and in many cases, actively participating in systemic reforms of policies and procedures as a consequence.

The clinical training programs are particularly appreciated by nursing staff both at Bamrasnaradura and elsewhere. However, the Team noted an apparent decline in the involvement of people with HIV and AIDS in training courses, (both as participants and trainers) at least for the previous year.

THE BAMRASNARADURA CLINICAL TRAINING UNIT

The TAACP assigned high priority to developing the clinical training capacity of the Bamrasnaradura Institute. Since the completion of the project, there has been ongoing development of the training provided by the Institute in content, breadth and number of courses delivered. (Tables 4.1–4.4)

TRAINING UNIT STRUCTURE AND STAFFING

The Regional Training Centre has four (4) full-time staff who coordinate all the training courses, study tours and official visits to the hospital. According to the Quality Plan flowchart, the yearly training plan / calendar is developed as follows:

1. The five Deputy Directors of the Bamrasnaradura Institute (see Organizational Chart in Appendix 4) meet to discuss staff training needs, a list of requirements is developed which is supplied to the Training Centre in early July.

2. Training Centre staff plan the training taking into account the list provided by the Deputy Directors, the availability of trainers and the funding available.
3. The training plan is forwarded to the Deputy Director for Administration, the Deputy Director for Research and Development, the Assistant Director for Strategy and Planning and the Director of the Bamrasnaradura Institute for approval.
4. The training plan and calendar are sent to the Ministry of Public Health for final approval.

The training courses are run by the clinical nurses and counsellors who were originally trained as trainers by the project. Staff indicated that there has only been a small number of staff (mainly nurses) trained to become trainers since the completion of the project largely because the number of available staff is limited. It was noted that training positions carry a considerable extra workload which may be a disincentive for staff who already have heavy work loads. The Team received conflicting accounts

Year	1997			2000			2003		
	Staff	Workload	Ratio	Staff	Workload	Ratio	Staff	Workload	Ratio
Training courses	4 staff	4 courses	57 trained/ staff	4 staff	17 courses	119 trained/ staff	4 staff	78 courses	1561 trained/ staff
People trained		225			476			6242	

Table 4.1: Bamrasnaradura Institute training staff and workload 1997, 2000 & 2003

concerning support for staff to participate in delivering training. Some staff reported being given time off to prepare and deliver relevant components of training courses. Other staff reported having their usual duties to perform and that training responsibilities are in addition to their usual workload. We conclude that this probably reflects an *ad hoc* approach within individual disciplines and the pressure of other duties in some areas.

COURSE RANGE, CONTENT AND DEVELOPMENT

As noted earlier, the courses offered by the training unit have developed considerably since the end of the joint project. Training is now: broader in scope, content has been revised, and many courses are conducted more frequently.

Table 4.2 lists the training provided by the Institute for international delegates from 2001 – 2004. This training was conducted in conjunction with other agencies such as the *World Health Organization* and *Family Health International*. Table 4.3 lists the basic courses regularly offered to Thai health workers (up to three times per year), coordinated by the Bamras Institute and conducted by Bamras clinical staff. Pre and post HIV test counselling courses were among the most popular courses on offer. Of particular note are the nursing courses that are now university-linked, each of these basic courses has been accredited and earn credit points toward a nursing degree.

Course	Duration	Location	Trainers	No. of Delegates	Role of Delegates	Country
Inter-Country Training Course on Clinical Management of HIV/AIDS	15-26 January 2001			15	Physicians, O & G, Paediatricians	Sri Lanka
Inter-Country Training Course on Laboratory Diagnosis of HIV/AIDS	1-5 October 2001			9	Medical officers and medical technologists	Sri Lanka
3 rd WHO Inter-country Workshop on Clinical Management of HIV/AIDS	November 2001			17	Health Care workers	India 5, Indonesia 3, Myanmar 2, Bhutan 1, Nepal 2, Thailand 2, Bangladesh 2
4 th WHO Inter-country Workshop on Clinical Management of HIV/AIDS, Bangkok and Chiang Mai	29 July-9 August 2002	Bangkok & Chiang Mai	Dr. Somsit Tunsuphaswadikul and Team	34	Health Care workers	Bangladesh 6, Bhutan 2, Cambodia 2, India 8, Indonesia 6, Lao PDR 2, Maldives 2, Nepal 2, Sri Lanka 2, Thailand 2
5 th WHO Inter-country Workshop on HIV- associated Opportunistic Infections, Siriraj Hospital and Bamras Institute	14-25 July 2003	Siriraj Hospital & Bamras Institute	Dr. Somsit Tunsuphaswadikul and team of medical technologists	18	Medical officers and medical technologists	Bangladesh 1, India 5, Indonesia 4, Myanmar 3, Nepal 3, Sri Lanka 3
6 th WHO Inter-country Workshop on HIV care and antiretroviral treatment	October 2004			32	Medical officers and medical technologists	WHO Western Pacific Region
Regional Training on Principles of HIV/AIDS Clinical Management (BI/FHI/ARP/ USAID)	June & November 2004	Bamras Institute	Dr. Somsit Tunsuphaswadikul and Team	15 15	Health care workers	Papua New Guinea 2, Nepal 3, East Timor 1, Cambodia 5, China 1, Bangladesh 1

Table 4.2: Courses for international delegates – Bamrasnaradura Institute 2001-2004

Name of course	Dates conducted	Trainers	Number of delegates	Service of origin
Counselling				
Foundation Skills in Communication for Working in HIV/AIDS	June 2002	Counsellors	25	Public Health
Basic Telephone Counselling	June 2002	Counsellors	12	Bamras and Others
Pre and Post HIV test Counselling	June 2002	Counsellors	40	Bamras and Others
Foundation Skills in Communication for Working in HIV/AIDS	June 2003	Counsellors	30	Bamras and Others
Pre and Post HIV test Counselling	Sept 2003	Counsellors	25	Health Officer
Pre and Post HIV test Counselling	July 2004	Counsellors	32	Health Officer
Nursing				
Ambulatory Care in HIV/AIDS	July 2002	Nurses	37	Bamras and Others
HIV Transmission in Health Care Settings and Standard Precautions	August 2002	Nurses	29	Bamras and Others
Palliative Care	June 2003	Nurses	27	
HIV Transmission in Health Care Settings and Standard Precautions	July 2003	Nurses	29	
Ambulatory Care of HIV/AIDS	June 2004	Nurses	28	
Palliative Care	Feb 2004	Nurses	21	
Palliative Care	April 2004	Nurses	30	
HIV Transmission in Health Care Settings and Standard Precautions	March 2004	Nurses	27	
HIV Transmission in Health Care Settings and Standard Precautions	August 2004	Nurses	30	
Mixed				
Antiretrovirals and HIV care	August 2004	-	75	
Antiretrovirals	August 2004	-	60	

Table 4.3: Basic counselling and nursing courses – Bamrasnaradura Institute 2002-2004

Training Courses 2003 - 2004	No. of Times Offered	Participants		Total Attendees	Responsibility
		Inside	Outside		
Training and site-visit program on 'Quality Survey inside the Institute'	2	✓	-	50	Quality Development Centre
Workshop on 'Functioning as Internal Quality Survey Inspector'	1	✓	-	26	Quality Development Centre
Work Smart	11	-	-	733	Quality Development Centre
Training program on 'Quality Assurance and Management of Specimens Collected for CD4 / CD8 Testing Prior to Analysis'	1	✓	-	80	Immunology and Virology Section
Workshop on Research Skill Development for Personnel: 'Making a Research Design and Defining Sample Groups'	2	✓	-	25	Research Coordination Section
Statistics & SPSS for Research	3			22 17 20	Research Coordination Section
'Orientation' for new staff of the Institute	1	✓	-	48	Training Centre
Technical Meeting on Current Situation of 'Bird Flu' inside the Institute	1	✓	✓	428	Training Centre
Dangerous Diabetes: Prevention				172	Training Centre
Enhancing Work Efficiency to Reduce Energy Consumption in Work Units	-	-	-	30	Working group on energy saving and conservation
Laboratory Investigations for Diagnoses of Opportunistic Micro-organisms	-	-	-	17	Medical Technology Group
Presentation on QC and Recommendations of the Institute	1	✓	-	80	Dr. Praphanrat
Training on 'Efficient method for setting up an internal control system'	2	✓	-	70	Training Centre
Training on 'HOMC Fast Report' Software	1	✓	-	24	Information Unit
Workshop in preparation for dealing with SARS situation in the Institute	2	✓	-	513	Infectious Disease Control

Table 4.4 (part 1): Additional courses – Bamrasnaradura Institute 2003-2004

Training Courses (cont.) 2003 - 2004	No. of Times Offered	Participants		Total Attendees	Responsibility
		Inside	Outside		
Academic meeting	1	-	-	176	-
Flow cytometry	1	-	-	18	Medical Technology Group
Avian influenza	1	-	-	149	-
Resuscitation	-	-	-	50	-
Managing electronic documents	-	-	-	32	-
Excellence in services	-	-	-	694	Quality Development Centre
Using the internet	1	-	-	30	-
Using the intranet	-	-	-	20	-
Infection control	-	-	-	500	Infectious Disease Control
Monitoring infectious diseases	-	-	-	85	Infectious Disease Control
Respirators in paediatrics	-	-	-	70	-
MRSA and other resistant organisms	-	-	-	200	Infectious Disease Control
Quality control programs	-	-	-	400	Quality Development Centre
Barrier nursing	-	-	-	3	Infectious Disease Control

Table 4.4 (part 2): Additional courses – Bamrasnaradura Institute 2003-2004

(Note: while all of the above were Bamrasnaradura Institute activities, not all courses were run by the Bamrasnaradura Training Unit)

Name of course	Duration	Conducted	Trainers
Pre and post HIV test counselling	4 days	Nonthawet Private Hospital, Nonthaburi	4 counsellors
A foundation skills course	2 days	Thammasat University Hospital	4 counsellors
Nutrition training	2 days	'Live Home Project' - Phuket	counsellor & nurse nutrition counsellor
Pre and post HIV test counselling	4 days	Khon Khen province	4 counsellors

Table 4.5: Training conducted at external facilities

Table 4.4 lists examples of other courses that are offered by the Bamrasnaradura Institute depending on demand, trainer availability and funding. Off-site training is also provided on request (Table 4.5). In addition guest speakers from external bodies such as universities and other health facilities periodically present workshops at the Institute.

Bamras staff are regularly updated by attending Bamras training courses, in-services and external courses. It was clear from the interviews, staff at Bamrasnaradura and staff from elsewhere who had attended training at Bamras had gained a great deal of knowledge and clinical confidence from those courses (see *impact* below).

Orientation training for staff is held roughly three times per year (depending on the number of new staff). Training includes:

1. History, structure and background of Bamrasnaradura Institute
2. The quality improvement system – CQI, QA, ISO, HA
3. Entitlements and Rights

A member of the evaluation team observed two training courses in July 2004. The first – ‘pre and post HIV test counselling’ – is a four-day course regularly conducted by the counselling team at the Bamrasnaradura Institute. The second course – ‘HIV transmission in the health care setting and standard precautions’ – is a five-day module regularly conducted by the nursing team of the Bamrasnaradura Institute. A pre-designed evaluation form was used to guide the observations and to record comments. Details of the evaluation including the assessment instrument can be found in Appendix 6.

Overall, the assessor noted that in both training courses the trainers were confident and open and knew their subject matter well. They engaged the participants using interactive teaching methods and successfully facilitated various group activities and discussions. Handouts were available and slide presentations varied to keep the interest of the group. Both courses employed evaluation tools and demonstrated evidence of having modified the original course content based on participant feedback and new and emerging information and trends. The one area in which further

opportunity existed for improvement was 'follow-up'. While both courses offered contact details to trainees and encouraged them to contact the Training Centre should difficulties or further questions arise, there was limited discussion about implementing training and no formal mechanisms to later assist or assess the implementation of learning back into trainee workplaces.

Training continues to be actively developed at the Bamrasnaradura Institute. As already noted, courses are offered more frequently than was the case on completion of the joint project, and several courses originally developed by the joint project have been adapted to better meet the clients' needs – in some cases extensively so. Several training outlines were reviewed and most showed evidence of being developed, updated and modified by the training staff. Notable examples include:

- > The Team reviewed a counselling course where three sessions had been combined into one: psychosocial issues, attitudes and countertransference. This combined session used adult learning principles and non-didactic methodologies, such as role play. The associated training materials contained accurate information and the program was carefully planned.
- > Two of the nursing courses that were originally developed by the project for Bamras – 'Triage Nursing' and 'Nurse Practitioner' training – have been modified extensively. It was explained to the Team that most health facilities did not have the staff or the capacity to appoint dedicated triage nurses and

nurse practitioners. Instead, most nurses were expected to perform aspects of these roles. In response, the training provided by Bamras was adapted and re-organised into two new courses: 'Ambulatory Care' and 'Palliative care'. In addition, counsellors provide aspects of this training alongside nurses, for example, the nurse-nutritionist covers nutrition, which has been incorporated into the Palliative Care course.

- > The 'Standard Precautions' course developed by the project has been redeveloped as the 'HIV Transmission in Health Care Settings and Standard Precautions' course. This course also discusses other infectious diseases, besides HIV. This adaptation appears to have been driven by the appearance of new and re-emerging infections such as multi-drug resistant tuberculosis (MDRTB), Severe Acute Respiratory Syndrome (SARS) and avian influenza.
- > Trainers provided examples of new courses that had been developed by Bamras staff. An example is the 'Antiretrovirals and Nursing Care' course, developed as part of the WHO '3 by 5 initiative'. This course has already been piloted several times for Bamras staff, and the course is being further modified. These modifications are to meet the needs of other health workers in Thailand, and to meet the Thai Nursing Council standards so that the course can be accredited for university curricula.

ONGOING TRAINING FOR TRAINERS

Records of staff professional development are maintained by each organizational unit in the hospital and are also summarised in the Institute's annual reports. Very few of the training staff reported ongoing training in adult education techniques although most trainers had attended additional training in their respective fields of clinical expertise. The Institute supports the professional development of each staff member by funding their attendance at up to four courses per year.

Currently, courses for international delegates are conducted in English and the Bamras Training Centre eventually aims to deliver most of the training content in English. As a result, trainers are encouraged to improve their English language skills, and several trainers have undertaken some sort of English language course. One course specifically mentioned was a 10-week course conducted by Ajarn Rod Rhulman (USA). This consisted of a 50 hour program conducted in April 2004 (a program outline is available).

An unexpected disadvantage of being a Regional Training Centre is that other agencies and hospitals that provide courses often overlook inviting Bamras staff to participate. This oversight is presumably because Bamras staff are assumed to be familiar with the material, especially for HIV-related courses.

IMPACT OF BAMRAS TRAINING PROGRAMS

Since 2002 the quality of documentation kept by the Training Centre has improved. Training evaluations for several different courses were reviewed and collectively showed that around 95% of attendees were satisfied with the courses and there was an average 45% increase in participant's knowledge levels based on comparing pre to post course knowledge tests.

Furthermore, as part of the impact evaluation, the study team sought the feedback of past participants in Bamras training programs. To achieve this, the Team reviewed records of past participants in order to identify potential sites for field visits. Within the time and funding constraints of the project, the Team selected a range of sites in order to access multiple perspectives: two Regional Hospitals (Puttachinaras Hospital, Phitsanulok, & Sappasithiprasong Hospital, Ubon Ratchatani), one rural community hospital (Thatako Municipal Hospital), one urban general hospital (Charoenkrung Pracharak), two sexually transmitted diseases clinics (both in Ubon Ratchatani), a general/military hospital (King Bhumibol Adulyadej Airforce Hospital), one rural Buddhist Temple hospice (Wat Prabathnampu, Lop Buri) and an urban Catholic orphanage and hospice (the Mercy Centre, Bangkok). At these locations a combination of individual interviews and focus groups were conducted and each was followed by an inspection of the facilities in order to confirm the interview data. Data from the interviews and focus group discussions is included in the following sections.

TRAINING IMPACT: QUALITATIVE DATA ON ENHANCED CAPACITY TO CARE

During the interviews, it was clear that the Bamras training was appreciated and well received. The Team collected frequent accounts of how the training: improved technical knowledge, changed attitudes (greater clinical confidence and less fear), prompted constructive modifications of individual professional practices, and resulted in various ways of passing the information on to colleagues (debriefing, ward meetings and formal seminars).

A prominent theme among the accounts from the focus group interviews was the role that HIV-related training at the Bamrasnaradura Institute played in improving the capacity of health workers to provide improved care on return to their home facilities. In the following account, improved attitudes towards people with HIV after attending Bamrasnaradura training are apparent.

‘We gained positive attitudes [from the Bamras courses] for taking care of people with HIV/AIDS. We treat them as persons. We do not separate people with HIV from others – except for advanced TB.’

(Participant at King Bhumibol Airforce Hospital, Bangkok)

Improvements in attitudes were found to take various forms and translated into clinical practice as the following account illustrates. In this account although certain restraints at the home institution impinge on the respondent’s ability to care, the participant clearly sees a new role for families and significant others in HIV care.

‘I understand more about the [HIV] patient’s circumstances and how to help them. For example, I have a better understanding of how to give support to the patient and family during the terminal phases of AIDS. I keep the family informed and allow the family to stay with the patient. We can not do the same as Bamras because of the workload and there is no separate place [a designated ward] like Bamras.’

(Participant at Charoenkrung Pracharak Hospital, Bangkok)

In addition to care extending to, and involving a wider range of important others, care was reframed as more holistic in terms of both treatment modalities and services as the next account indicates:

‘There are now more choices for patients when I give them advice ... not only to take their medicine, but to use some alternative methods too. Care is now more holistic.’

(Participant at Charoenkrung Pracharak Hospital, Bangkok)

There were also suggestions that the lessons learned from training will influence the quality of care beyond a diseases focus, and likely even beyond people with HIV.

‘The palliative care course is useful. I now feel confident to educate and support the family. I think more holistically about care and beyond HIV.’

(Participant at Bhumibol Airforce Hospital, Bangkok)

TRAINING IMPACT: QUALITATIVE DATA ON IMPROVED PERSONAL CLINICAL SKILLS

In addition to data on a greater understanding of what is involved in care – involving significant others, using more holistic treatment modalities and improving attitudes towards the patient and their illness – there was also substantial data that training at the Bamrasnaradura Institute helped to develop and improve clinical skills. The following account illustrates the major theme of reducing fear and increasing clinical confidence:

‘[The Bamras training] changed my attitudes towards [HIV] patients from negative and fearful. ... I am now positive and confident when providing care. ... There is less fear and stigma than previously.’

(Participant at Sappasithiprasong Hospital, Ubon Ratchatani)

But these improvements go further than simply changing attitudes. The following quotation clearly indicates improved personal practice:

‘[The Bamras training] increased my awareness and participation in IC [infection control] including improved hand washing techniques and less fear of sharps when taking blood from [HIV] positive patients.’

(Participant at Sappasithiprasong Hospital, Ubon Ratchatani)

A similar change in practice can be seen in greater detail in the following:

‘[As a result of the Bamras training] we use the ‘one touch’ techniques to prevent sharps injuries. Some staff still re-cap needles out of habit. My knowledge has improved about disposing of sharps, preventing sharps injuries, preventing contact with body fluids, preventing cross-infection, hand washing ... I can take care of myself.’

(Participant at Charoenkrung Pracharak Hospital, Bangkok)

The Team notes the importance of conducting site visits following interviews. While the interview data is extremely valuable, it is likely that the Team would have underestimated the very difficult conditions that grass-roots health workers work in on a daily basis had the Team confined its visit to the administration areas of some services. It was particularly notable in certain locations that there were many impediments to implementing the training received at Bamras as the second account in this section suggests. These impediments include how systems and patient flows are organised; how influential the course attendees are in their home unit; and physical conditions in clinical areas including a lack of hand basins (70% alcohol was commonly used as a substitute), crowding of beds (much less than one metre spacing making cross-infection likely) and a lack of isolation facilities for communicable respiratory infections (such as MDRTB, suspected SARS, influenza).

TRAINING IMPACT: QUALITATIVE DATA ON IMPROVED CLINICAL SYSTEMS

There were also accounts of how participants actively contributed towards producing systemic reforms of policies and procedures in their home institution, which was assisted by, if not entirely attributable to, having attended the course. Perhaps the most prominent of the courses to feature in the feedback were Bamras infection control and pre- and post- HIV test counselling training. The Team notes particularly, the impressive systematic

approach to infection control taken at the Thatako Hospital.

In the first example, we see that training has reinforced the use of clinical guidelines:

‘Now I know how to manage sharps injuries ... we follow the guidelines.’

(Participant at Sappasithiprasong Hospital, Ubon Ratchatani)

Likewise, training also helped to reinforce the use of hospital policies and procedures, by giving them practical relevance and meaningful approaches to implementation:

‘I gained knowledge [from the Bamras course] on how to handle sharps and to avoid sharp injuries – on how to dispose of sharps and to protect myself. These procedures are part of the hospital infection control policy/campaign.’

(Participant at Sappasithiprasong Hospital, Ubon Ratchatani)

Developing this theme even further, we can see that Bamrasnaradura training has assisted in bringing about systemic changes in policies, procedures and practices. In the two examples that follow, good leadership and a systematic approach to clinical systems was supported by training with very positive outcomes:

‘I still keep the Bamras course materials and pass them on within the hospital. I used the materials for developing a checklist as part of hospital infection control policy because I am a member of the infection control committee.’

(Participant at Thatako Municipal Hospital)

In the second example from Thatako Hospital, adaptation of the ambulatory care approach is apparent in a low case-load setting:

‘HIV/AIDS caseloads are not high [about 1-3 cases per month], but we run several activities including a one stop service for patients taking anti-retroviral drugs.’

(Participant at Thatako Municipal Hospital)

TRAINING IMPACT: QUALITATIVE DATA ON LIMITING THE IMPACT OF TRAINING

The capacity for training to lead to systemic change can often be limited by factors that are beyond the control of the participant. In particular, the Team found that the relative authority of the participant,

the organization of the institution, the availability of ongoing professional support and sheer pressure of work are all influential factors.

In the following extract, the participant acknowledges how her relatively powerless position limits her ability to influence dominant modes of practice, even when they are relatively unsafe.

‘After I came back from the Bamras training course [HIV and standard precautions course] I presented a 15 minute oral presentation to the staff here as part of the monthly ward meeting. However, I am only a little woman [in terms of authority]. I cannot make everyone do the same as me. To change practice, the training also requires policy enforcement. Hand washing is more effective partly due to the infection control unit campaign and hospital policies which focus on quality care.’

(Junior nurse, Puttachinaras Hospital, Phitsanulok)

The design of wards, whether they are mixed medical or HIV-specific and whether they are overcrowded and carry with them a heavy workload also limits the implementation of training obtained from Bamras.

‘I educate family members and get them involved in patient care. This is important. However, it is not possible to provide as much spiritual support as Bamras because of our workload.’

(Palliative care course participant, Puttachinaras Hospital, Phitsanulok)

The final account in this section illustrates how a lack of formal mechanisms for ongoing professional support impacts on the capacity of training to influence practices at the home institution. This issue will be discussed further in the section on ‘training gaps’ below.

‘I have not contacted Bamras ... I do not feel able to make contact without good connections or formal collaboration ... even though I personally have a telephone number to make contact I feel this is not appropriate.’

(Participant from King Bhumibol Airforce Hospital, Bangkok)

IMPACT OF REGIONAL TRAINING CENTRE PROMOTIONAL MATERIALS

During the final stages of the project, AusAID provided funding for production of a video and published material to promote the activities and resources of the Bamrasnaradura Institute as a training and reference centre for HIV/AIDS. These resources were intended for distribution in Thailand and the surrounding Mekong countries. The video was completed in both English and Thai and disseminated to over 700 sites in Thailand. The Team determined that the video was not disseminated to any of the Mekong countries but accompanying IEC materials were. A short survey was developed and translated and sent to the 742 sites in Thailand that had received the promotional materials. The survey questions aimed to determine whether staff at the site remembered receiving the package; if they had sent staff to the Institute on a study visit or to attend training as a result of receiving the package; and whether they felt the package had been useful. Other questions examined whether professional links had been established or strengthened as a result of the package and subsequently, if any aspects of care had been influenced by the Bamras Ambulatory Care model. A copy of the questionnaire along with a full report on the results of the survey can be found in Appendix 7.

In summary, a total of 310 surveys were returned. This constituted a return rate of 42%. This is not considered particularly high and so care should be taken when interpreting the results of this study, however, considering the package was sent over three years ago, this return rate exceeded researcher expectations. Data was analysed using SPSS (Version 10). The analysis showed that 49% of those who replied remembered having received the package. Most (91%) of the respondents were aware of the Institute's reputation for working with people with HIV. Only a small number of respondents had established links with the Institute prior to the completion of the project (17%).

Of the respondents who had received the promotional package 82% said that their hospital had 'very much' to 'moderately' benefited from the materials. The most common benefits described were (in order of rank):

- > Improved staff knowledge
- > An increase in staff understanding about HIV/AIDS issues
- > Improved patient care for PLWHA
- > Improved staff attitudes towards PLWHA
- > Improved staff skills

Survey item	Percent of survey recipients
Sites that have sent staff to training at BI since 2001	10 %
Sites that have sent staff to tour BI since 2001	9 %
Sites that have established or strengthened links with BI since 2001	13 %

Table 4.6: Impact of Regional Training Centre promotional materials

Of the respondents who had either received the promotional package, sent staff to the Institute for training or on a study tour, 73% said that their facility had implemented aspects of care, treatment and support for people with HIV that were learned from the Bamrasnaradura Institute.

UTILISATION OF IEC RESOURCES

A comparison of IEC materials available at the end of the project (2001) to those available in 2004 showed that the majority of IEC were still in use. The Team noted however that while IEC developed during the project had been professionally printed the IEC observed were mainly photocopies of those originals. Staff reported that little funding was available for the reproduction of existing IEC or the development of new materials. In some cases funding had been obtained. The Pharmacy for example had solicited support from pharmaceutical companies to develop and professionally print their new flipchart booklet 'General knowledge on immunodeficiency patients'. Some materials originally developed for the project have been updated. This was notably the case for IEC on newer HIV treatments. Client access to antiretrovirals has improved greatly and new treatments have emerged. The number of possible drug combinations has increased and so have the possible drug interactions and side effects. As a consequence, many of the existing IEC were updated and new IEC were developed.

Staff confirmed that IEC were still used as an active part of patient counselling and education. The Team observed a number of dispensing points in the hospital for IEC

materials for patients, family and carers: at the entrance to the Ambulatory Care Unit and in the Candle Light for Life Club. Materials relating to antiretrovirals were also available at the pharmacy counter.

Examples of IEC were given to attendees as part of the Bamras training programs. Discussions with staff from other institutions during field visits revealed that Bamras IECs had often been modified for use in the delegate's health facility. Notable examples include infection control materials such as hand washing posters and nutrition IEC. Staff indicated these had been extremely useful for personal reference and to inform patient care and local procedures as the following account illustrates.

'The information, education and communication materials from Bamras are useful. I review them when I experience problems taking care of patients.'

(Participant at Sappasithiprasong Hospital, Ubon Ratchatani)

Unit	Title	Availability as of 2004/ Comments
Pharmacy	Taking TB medications > 'TB treatment combination' (Pirazinamide, Isoniazid, Ethambutol, Rifampicin) > 'ethambutol'	Still in use
	Taking antiretroviral medications 'AZT' – zidovudine	Updated
	Taking antiretroviral medications 'ddl' – didanosine	Updated
	Taking antiretroviral medications 'Indinavir'	Updated
	Taking PCP Prophylaxis: 'co-trimoxazole'	Still in use
	Taking antifungals: 'itraconazole'	Still in use
	Taking antiretroviral medications 'GPO-VIR' – Combivir (lamivudine/zidovudine) and nevirapine	NEW
	Taking antiretroviral medications '3TC' – lamivudine	NEW
	Taking antiretroviral medications 'D4T' – stavudine	NEW
	Taking antiretroviral medications 'EFV' – efavirenz	NEW
	Common side effects of ARVs	NEW
	General knowledge of immunodeficiency patients – flip chart book	NEW
Nutrition	Easy ways to gain weight	Still in use
	Weight gain- low fat	Still in use
	Food that is easy to chew and swallow	Still in use
	Improving appetite	Still in use
	Assisting with problems of nausea and vomiting	Still in use
	Cheap, healthy eating- 50 baht per day menu	Currently out of stock
	When you have diarrhoea	Still in use
	Healthy snacks (Street Food)	Still in use
	Snacks- low fat	Still in use
	Food hygiene	Still in use
Food hygiene for children	Still in use	
Nursing	We can live together without getting HIV/ AIDS- infection control for home care	Still in use
	Symptomatic care of AIDS patients	Still in use
	Information about lumbar punctures	Still in use

Table 4.7: Information, education and communication printed resources identified by the impact evaluation team as available at the Bamrasnaradura Institute

Counselling	The 'Get to know others, get to know ourselves, and get to know AIDS' series:	Still in use- photocopies only
	1. General knowledge of HIV	Still in use- photocopies only
	2. Body Care	Still in use- photocopies only
	3. Mental care	Still in use- photocopies only
	4. Problem solving by oneself	Still in use- photocopies only
	5. Safe sex	5. and 6. now in one document
	6. Safe use of needles	5. and 6. now in one document
	Having a blood test for HIV	Still in use- photocopies only
	Understanding a HIV negative result	Still in use- photocopies only
	Understanding a HIV positive result	Still in use- photocopies only
	The Bamras social welfare system	Still in use- photocopies only
	Psychosocial services for people affected by HIV/AIDS	Still in use- photocopies only
	Rights and benefits for those on social support	Still in use- photocopies only
	Manual for people who love to be healthy	Still in use- photocopies only
	AIDS	Still in use- photocopies only
General information about ARVs	NEW	
Others	Hemorrhagic fever	Not found

Table 4.7 (cont.): Information, education and communication printed resources identified by the impact evaluation team as available at the Bamrasnaradura Institute

TRAINING GAPS

Several potentially important gaps in the Bamras training programs were identified by the Team and are noted here in the hope that they might be useful for further exploration.

- > *Post-training support.* Trainers expressed regret that they were unable to follow up participants after training courses, to establish the impact of courses. It was indicated that participants were routinely invited to contact the training staff if they had any questions or needed further assistance following a

course. However, while the evaluation team found that participants from smaller agencies providing mixed services experienced problems in implementing some of the skills and knowledge learned at Bamras, they were nevertheless reluctant to call Bamras staff for advice in the absence of a formal mechanism to do so. The Team concluded that: (i) training staff should consider further adaptation of training materials to suit the needs of these smaller agencies or at least include additional case studies to suit smaller, generalist services; (ii) explore

- the possibility of implementing a ‘Clinical Advice Hotline’ as a formal avenue to encourage participants to phone the training staff for further advice and support; (iii) an additional strategy that emerged during the study and attracted some support during interviews was the possibility of having field visits by Bamras training staff. There would be three main advantages of such a system: first, people who have attended courses could obtain assistance in adapting the material to local conditions; second, Bamras staff would be able to inspect local conditions and adapt course content appropriately; third, staff would be able to recruit additional trainees during field visits.
- > *Health and welfare sector training gaps.* The reviewers identified charities as members of the health and welfare sector that do not enjoy easy access to training. This is regrettable because a significant burden of care for people with HIV in the community falls to temples, church bodies and self-help groups – particularly ambulatory and hospice care. This care is mainly funded by donations and in doing so delivers considerable savings to the public purse. Three (3) organizations visited by the reviewers fall into this sector – a self-help group, a Buddhist temple, and a Christian charity. All had previously sent staff to training at Bamras. In one case, the staff member left soon after being trained and no one has been trained since. In another case, staff were trained early in the project and the organization has not accessed similar training since, despite finding it very valuable. In the third case, the group previously participated in training, but their role has decreased. The likely explanations for these outcomes include: the cost of training and the lack of funding to support staff to undertake training and to cover them while absent (unlike the public system); the increasingly mainstreamed nature of some training to cover infectious diseases more generally and a corresponding decrease in a focus on people with HIV; and charities falling outside the formal communication networks of the public system which may mean that they are not aware that training is available or they may be unaware of how to access it.
 - > *Level of consumer involvement in training.* It seems possible that recent revisions in course content making courses more generic and changes within Bamras have led to increasing dominance of professional perspectives in training and a decrease in the involvement of people with HIV. While this might be coincidence, the Team notes that the loss of the consumer perspectives in training is a well recognised problem in professional fields and would be detrimental to the quality of training provided.

FUNDING AND SUSTAINABILITY OF THE TRAINING PROGRAM

Funding of the Bamrasnaradura Institute to provide clinical training programs originates from several sources: core funding from the Ministry of Public Health and the Institute; and additional funding from international agencies and donors who contract the Bamrasnaradura training unit to deliver courses for specific audiences. Clinical staff employed in the Thai Public Hospital system are reportedly able to access professional development funds, which support training by providing for relief staff, travel, accommodation, per diems and registration fees. Funding is allocated to staff based on applications which are assessed by internal committees within each health service. There appears to be sufficient provision for all clinical staff to attend external professional development at least every couple of years. These arrangements are in addition to internal education and training, which is available in most institutions. As mentioned above, the Team found that a weakness in the current arrangements is a lack of a similar system of support for staff working for non-government organizations and charitable bodies. The Team recognises that this issue is beyond the control of the Bamrasnaradura Institute, but is worthy of further policy attention by the Thai Government and international donors.

The Bamras Regional Training Centre has not become self-funding in terms of meeting its training budget through money raised from fee paying courses. There are still very few fee paying courses offered through the Centre. While training conducted in collaboration with other agencies such as

Family Health International and the *WHO* were mostly fee paying courses, Bamras was not directly responsible for administering the funding of these courses. Instead, the Institute received a contracted lump-sum fee from the respective organization for each course delivered on their behalf.

However, the Training Centre has grown and the courses have diversified and in that sense it is both sustainable and continues to provide training, which has mixed funding from various sources. Where funding can be obtained from government or other sources there are no individual course fees, where funding cannot be raised participants are charged. Table 4.8 shows the yearly budget of the Training Centre with contributions from the government and income from courses. As can be seen the yearly government contributions fluctuate. The Team notes that the financial documentation provided in the Table 4.8 lists funding from public sources, however, additional sources are listed in the Training Centre's Quarterly Report (January to March 2004) including hospital income and the social security fund.

Although there appears to be relatively good documentation of the budget as far as public sector income and expenditure are concerned, it was more difficult to determine what happens to fee-for-service income from training. One source suggested that this money goes into a central hospital fund (The Bamras Foundation), and is used in part to offset deficits on occasions when courses do not cover costs.

Fiscal year	Budget from Bamras Institute (Baht)	Budget from Thai Government (Baht)
2001	3,798,053.25	367,600.00
2002	1,085,250.00	243,725.00
2003	1,148,338.20	286,771.00
2004	1,699,502.16	269,998.00 (End of July 2004)

Table 4.8: Annual budget of the Bamrasnaradura Training Centre (Hospital and Government sources only)

CONCLUSIONS

Has training and empowering of ward-based clinical staff in conducting health worker training been sustained?

The clinical training unit continues to provide quality clinical training for staff from Bamras, external organizations and health workers from nearby countries. Training is conducted by a range of staff including experienced clinicians. There are varying accounts of how much support is given to hospital staff to deliver training, which probably indicates a fairly *ad hoc* arrangement depending on the unit involved. In general, trainers have undertaken additional education in their own clinical discipline, and many have had additional education in English language skills, but few have had further training in adult education. There is evidence that course delivery extends beyond didactic presentations. There have been modest steps towards mentoring new trainers. Available courses cover a broad range of topics and have been expanded in range, revised in content and increased in the frequency of delivery since the collaborative project was completed. The evidence is that at least some of the training has led to improvements in

knowledge, competence, praxis and clinical systems. Importantly, these do not appear to be isolated improvements. Under the auspices of the WHO and international donors training is being delivered to health workers from nearby countries including, Bangladesh, Bhutan, Cambodia, China, East Timor, India, Indonesia, Lao PDR, Maldives, Myanmar, Nepal, Papua New Guinea, Sri Lanka and Thailand.

Has the Bamras training program become self-funding and sustainable?

The Bamrasnaradura training programs have grown since the end of the joint project. There is evidence (outlined in this and subsequent chapters) that the programs deliver valuable outcomes for Thailand and the region. In that sense, the programs are sustainable. However, sustainability of the programs depends on continued support of the Thai Government, the Bamrasnaradura Institute and international donors. Some courses are run on a fee-for-service basis as was originally planned and others are funded through contract-based lump sum payments. The courses are best suited to public employees, and provide a particularly rich curriculum for nurses. It appears as if charities and non-government groups are

particularly disadvantaged when accessing the system (this is not the 'fault' of the Institute, but is an issue that is worthy of MoPH attention).

How have the information, education and communication resources been utilized by Bamras e.g. printed information sheets/leaflets and video?

Information, education and communication materials continue to be produced by the Institute. Some from the original project have been discontinued, some have been revised and others have been newly developed in response to changing circumstances (notable in response to emerging infectious diseases and new antivirals). Some funding for materials has been accessed from the private sector (e.g. drug companies). Many of the materials used now are photocopies of the professionally printed originals. The video developed by the joint project has been widely distributed in Thailand, but not to neighbouring countries. Nevertheless, training is provided to nearby countries and this will be discussed in the following chapter.

5 Extending Bamrasnaradura HIV Programs

SUMMARY

As noted in a previous chapter, the ambulatory care and training model developed at the Bamrasnaradura Institute by the TAACP was found to have benefited regional and community health services both in Bangkok and elsewhere in Thailand.

Not surprisingly, in all of these situations the deployment was highly influenced by local circumstances and administrative arrangements. While some modifications represent useful and often inevitable adaptations of the experience and external training provided by the Institute, there was also evidence of *ad hoc* and less systematic implementation. The result sometimes seems to have been less than ideal responses to HIV/AIDS by the recipient service, and a shortfall in the potential gains by patients. Beyond Thailand, there was evidence of benefit flowing to nearby countries from study tours to and training by the Bamrasnaradura Institute. This has maintained momentum because of

(1) the good standing that the Institute has in the region for HIV/AIDS care; (2) the continued availability of training provided by the Institute; (3) the ongoing support provided by the hospital, the Thai Ministry of Public Health and international donors; and (4) the recognition of the expertise of the Bamrasnaradura Institute in HIV/AIDS afforded by the World Health Organization, which has designated the Bamrasnaradura Institute as a regional HIV/AIDS reference centre. Undoubtedly the TAACP laid solid foundations for these activities and contributed substantially to their sustainability.

EVALUATING THE EXTERNAL IMPACT OF THE BAMRASNARADURA PROGRAMS

The study team was asked to examine the influence and extension of the Bamrasnaradura programs outside of the Institute, both in Thailand and the Region. In order to assess the external impact the Team visited a range of external sites as

discussed earlier. Table 5.1 lists the principal sites visited.

The field sites were chosen by the study team because of their theoretical importance for the impact evaluation – namely that they had previously sent staff to undertake training at Bamrasnaradura Institute and the Team was interested in the impact that this training had on return to their home institution.

In addition, rather than attempting to select multiple similar cases, the Team ‘purposely’ sampled a range of locations (urban & rural), institutions (hospitals, clinics, charities) and collected multiple data forms (interviews, focus groups, observation, documents, statistics) in order to build

as far as possible, a comprehensive, rich picture. The Team considered that it was not methodologically sound to conduct ‘random’ sampling nor to identify ‘control’ institutions in order to obtain ‘representative’ samples or to undertake comparisons. It was not feasible to visit all institutions that had sent staff to Bamras for training. In the years 2002 to 2004 inclusive, 99 hospitals had sent a total of 302 staff to six different training courses offered by the Regional Training Centre. Within the available budget, a total of nine site visits were selected and completed. It was also not possible to conduct site visits external to Thailand within the resources available to the study.

Facility	Name & location
Regional Hospitals outside Bangkok	Puttachinaras Hospital, Phitsanulok (1000 beds) Sappasithiprasong Hospital, Ubon Ratchatani (1000 beds)
Rural Community Hospital	Thatako Municipal Hospital, Thatako Municipality (60 beds)
Urban General Hospital	Charoenkrung Pracharak Hospital, Bangkok (400 beds)
Sexually Transmitted Diseases Clinics	Municipal Clinic, Ubon Ratchatani Regional MoPH Clinic, Ubon Ratchatani
Urban General/Military Hospital	King Bhumibol Adulyadej Airforce Hospital (700 beds)
Rural Buddhist Temple Hospice	Wat Prabathnampu, Lop Buri
Urban Catholic Orphanage & Hospice	The Mercy Centre, Bangkok

Table 5.1 Principal external sites visited by the study team

The facilities visited represented the three general classes of hospitals recognised within the Thai system. These include community hospitals (< 150 beds), general hospitals (150-500 beds), and regional hospitals (> 500 beds).

EXTENSION OF THE PROGRAMS WITHIN THAILAND

Data on the impact of the Bamrasnaradura Clinical Training program was presented in the previous chapter. In that chapter evidence was presented that, as a result of attending Bamras training, participants from external health services have:

- > improved their knowledge;
- > developed greater confidence and clinical skills;
- > modified their personal work practices;
- > passed new learning on to their colleagues by debriefing, ward meetings and professional meetings; and
- > in many cases have actively participated in systemic reforms of policies and procedures.

It was also noted that these accounts were identified across various external sites that were visited by the Team, and therefore it was reasonable to conclude that these improvements represented a widespread phenomenon rather than isolated cases. Qualitative data was also identified that showed that participants retained the printed materials obtained during Bamras courses and subsequently used them as reference materials.

Since the conclusion of the project, links with academic institutions have strengthened somewhat. The Bamras clinical training programs have recently been revised and accredited for university-based nursing education. Guest speakers from external institutions are involved in Bamras training initiatives. Bamras staff participate

in a range of clinical trials. Unfortunately, a weakness of the academic collaborations to date is that many are initiated externally and Bamras largely acts as a resource for clinical material.

Nevertheless, academic links warrant further development, and these are restrained partly because of the slightly anomalous administrative arrangements for the Bamrasnaradura Institute, which complicate negotiations with academic institutions because they are managed by different government departments. This is not the case with many other teaching hospitals, many of which fall under the Department of Education. It was also noted that several other government departments, including Transport, Defence and the Bangkok Municipal Department, also administer hospitals.

Notwithstanding the above comments, the Team notes that the stage is set at Bamras for increasing academic collaborations. Since being restructured as an institute, teaching and research have been formally endorsed as core responsibilities of Bamras and higher level promotion has been made conditional on being involved in research. A strategy is currently being undertaken by the Bamras Research Coordination Section to promote in-house research at Bamras and training is being provided in research design and methods (including for example in the use of SPSS software).

The Team found that identifying evidence of impact and extension of the Bamrasnaradura Ambulatory Care model was less clear cut than identifying evidence of the impact of Bamras training. Certainly all services

visited by the Team had elements of their approach that resembled the Bamras approach, but no case was identified where the Bamras model had been exported and implemented intact. On reflection this is not surprising. First, the HIV epidemic has been evolving in Thailand for more than a decade and services were already growing in a reactive and *ad hoc* manner by the time the TAACP was implemented. Second, over the recent 15 years, there has been widespread interest in the epidemic in Thailand from many quarters and there have been many players and many approaches, some of which have developed systems similar to that of Bamras seemingly independently (for example elements of the ambulatory care system at Sappasithiprasong Hospital in Ubon Ratchatani, which was developed with US assistance). Third, Bamras is a specialised urban infectious diseases hospital and many of the approaches and systems used at Bamras are not easily adapted to smaller, generalist hospitals, particularly those in the community and in rural settings. Paradoxically, these smaller generalist hospitals are often already quite familiar with multi-skilling staff, providing multidisciplinary care and engaging with family and significant others – something that large, specialised, urban hospitals like Bamras probably had to relearn. Fourth, Bamras training is delivered in modular forms and staff from external institutions are generally supported to attend specific training modules, rather than training in the composite Bamras system. For all of these reasons, the deployment of the Bamras Ambulatory Care model elsewhere is much less likely than is the adoption of

elements of that model according to local needs, HIV caseloads, patient flows and internal organizational dynamics. While this process has led to the development of some very useful services for people with HIV (for example at Thatako Hospital), the Team also noted that the *ad hoc* growth of services sometimes produced unpredictable results: a failure to retain sufficient trained staff, long periods between training, fragmented patient flows, separation between STI and HIV services, and facilities that compromise essential procedures, such as infection control. The Team concluded that it was inevitable that elements of the Bamrasnaradura model would be adapted and deployed rather than ‘replicated’ as the original impact evaluation questions state at one point. Far more important is whether the adaptation is constructive and whether it is nested in a coherent approach that efficiently serves the needs of people with HIV in the catchment area of that service.

Finally, an interview conducted with a senior health bureaucrat in the Ministry of Public Health revealed that the Bamrasnaradura Ambulatory Care approach has influenced the ongoing development of Thai health policy; in particular the model was influential in development of the Comprehensive Community Care (CCC) approach.

EXTENSION OF THE PROGRAMS BEYOND THAILAND

The provision of training for health workers from the region has developed considerably since the end of the joint program. The Team was able to establish that as of late 2004 Bamras has provided training for delegates from at least 14 countries including Bangladesh, Bhutan, Cambodia, China, East Timor, India, Indonesia, Lao PDR, Maldives, Myanmar, Nepal, Papua New Guinea and Sri Lanka (see Table 4.2).

The development of international linkages by the Bamras Institute appears to have been aided by several factors, including: the growing reputation of the Bamras Training unit and its continued position as a WHO Regional Training Centre; support for the Bamras system from the Thai Government; and the utilisation of the programs by international agencies such as the WHO and FHI. Since the completion of the project there has been a significant number of regional and international visitors to the Bamras Institute (Table 5.2), undertaking both hospital tours and more in-depth study tours.

Year	# Regional Visitors	# International Visitors
2001	253	1348
2002	563	764
2003	368	1651
2004 (to June)	204	560

Table 5.2 Regional and international visitors to Bamras Institute

CONCLUSIONS

Has the model been extended into other settings? If so, how has it been adapted?

The Team is not aware of any attempts to faithfully replicate the Bamras Ambulatory Care model, although various examples were identified where elements of the model were adapted for local use. These elements include pre and post test counselling, infection control procedures, aspects of HIV ambulatory and palliative care and nutritional counselling. Barriers to the wholesale adoption of the ambulatory care model are various and include: the relative inauthority of the staff who undertake training; relatively high generic patient load and lower HIV caseload; the organization of patient flows; the physical environment of the service; the competing pressures exerted by other clinical issues; the disposition of key personnel towards HIV-related issues; the affordability of certain treatments and procedures; stigma and privacy issues mitigating against highlighting HIV (in Bamras there is an expectation that patients may have an infectious disease, in other hospitals in smaller communities however, this is often not the case and privacy and confidentiality are more of an issue); and pressures to mainstream HIV and to conform to generalist approaches in health care.

The major differences between ambulatory care implementation at the Bamrasnaradura Institute and external services relate to the specialised focus of Bamras. Lower patient loads in other services make it difficult to justify facilities specifically dedicated to HIV care. Unlike Bamras, most external

services have adapted the Bamras training so that patients with HIV are managed in general hospital wards and ambulatory HIV patients access clinical services from general emergency and outpatients departments, albeit with access to specialised staff and clinical sessions within that framework (for example, antiviral clinics and counselling). The ‘mainstreaming’ of HIV in this way understandably results in pressure to treat people with HIV in similar ways to other patients. While logically this could be seen as an argument to upgrade care for everyone, in reality the physical environment and service organization prevent this ideal from being achieved.

Finally, there are methodological reasons why the impact evaluation is unable to directly assess whether adoption of the ambulatory care model had been more successful in services that sent staff for training; however it is clear that many staff who did attend training subsequently translated that training into better practice and improved clinical systems in their home service.

6 Project Elements Previously Considered Partially or Not Successful

SUMMARY

An *Evaluation of the Thailand–Australia HIV/AIDS Ambulatory Care Project* was published by AusAID in December 2001, soon after the project was completed (Plant, Mijch, Malau and Songwathana 2002). In the report, the authors noted several areas where they felt that the project had been partially successful, or not at all. The present impact evaluation revisited those areas in order to determine whether any developments had occurred since. For a number of these items, substantial progress appears to have occurred since the conclusion of the joint project (patient satisfaction, multidisciplinary care). For others, there have either been few advances or a mixed picture (medical involvement, nurse practitioners, and library). In all cases, the Team offers reasons why this might be so.

AREAS OF PARTIAL SUCCESS

The areas considered in the previous AusAID evaluation (Plant, Mijch, Malau and Songwathana 2002) to be partially successful are listed in Table 6.1.

Partially successful areas in the joint Thailand-Australia HIV/AIDS Ambulatory Care Project

- > 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 patient satisfaction survey. This was implemented twice, but the methodology made drawing conclusions difficult
- > The laboratory component
- > The library is improved but not greatly accessed

Table 6.1 Areas in the TAACP that were considered to be only partially successful in the previous project evaluation (Plant, Mijch, Malau and Songwathana 2002)

MEDICAL INVOLVEMENT

Medical involvement in the Bamrasnaradura training programs was largely at the managerial level, although certain key clinicians were involved in delivering elements of the training. The Bamrasnaradura Institute has been a WHO collaborating centre since 1997 and has been actively involved in training for medical personnel, both locally, regionally and internationally. However, the Team noted that other donor agencies such as Family Health International (FHI) are now also utilizing the Bamras Institute for the training of doctors and the number of training courses seems to have increased.

Bamras medical staff appear to accept the expanded role of nurses and other allied health professionals. Discussion with staff highlighted that doctors had become more truly multidisciplinary in their orientation, with greater motivation for involvement in patient care teams, debriefings and patient case consultations. Allied health staff are also reporting a greater number of referrals from doctors especially for counselling and patient education regarding antiretroviral therapy.

NURSE PRACTITIONERS

While the category 'nurse practitioner' exists internally at the Bamrasnaradura Institute and some specially-trained highly-skilled nursing staff are referred to as nurse practitioners, their role seems to have declined from what was initially planned. The Team received conflicting views about the nurse practitioners but determined that the nurse practitioner model was still intact in the Ambulatory Care Unit.

Here, the role involved advanced clinical procedures, including lumbar puncture under medical supervision, and this role provided important support for the work of the doctors. No formal job descriptions for the nurse practitioner positions were identified. The Team notes that 'nurse practitioner' status is currently undergoing development at a national level through the Thai university system, so it is likely that the internal role of nurse practitioner will eventually be superseded by this accredited position.

MULTIDISCIPLINARY CARE

Multidisciplinary services are available for patients on the wards. Circumstances still preclude the use of multidisciplinary ward rounds with staff largely due to lack of staff and competing responsibilities. Doctors do regular ward rounds usually accompanied by at least one senior nurse, while counsellors and other allied health professionals do their own ward rounds when appropriate. Staff meet to discuss patient cases in several forums including regular case conferences (which usually occur during the lunch break), at debriefings, staff handovers and monthly Patient Care Team (PCT) meetings. The PCT meetings, a result of the ISO accreditation process, usually comprise a doctor, nurse, counsellor, psychologist, pharmacist, social worker, nutritionist, and often a physiotherapist. Staff noted that the PCT meetings are useful for problem solving especially in complicated cases and where patients are in crisis (in which case unscheduled meetings are arranged).

PATIENT SATISFACTION

The Patient Satisfaction surveys used during the TAACP have been modified considerably (shortened and simplified) for use as part of the Institute's requirements for accreditation. Since completion of the project, surveys have been conducted yearly with the results being collated from each department and analysed by the Quality Development Control Centre. The results were inspected by the Team and an example of results from 2003 is presented in Table 6.2. The survey material was not HIV specific, but covered most aspects of the Institute where there was an interface with patient care. The Team noted however that there was inconsistency between different Departments with some areas not completing the survey annually. These studies constituted the basis for a Masters Degree at Chulalongkorn University by one of the training unit staff (Pornladda Boonjun). On the basis of peer-reviewed university examinations these studies were awarded a Masters Degree.

LABORATORIES

The laboratories provide solid core diagnostic and monitoring services.

Equipment purchased during the project continues to be useful. There seems to be low level resentment that the project did not provide additional, more sophisticated equipment. The Team notes that the laboratory arm was added as a necessary adjunct to support the clinical elements of the project, but was never intended to be the principal focus of the project. Moreover, a review of relevant project reports indicated that equipment was provided depending on the availability of in-country after-sales maintenance and support.

LIBRARY

The library has a good core range of paper-based journals and books. The key journals are current. The library is organized in such a way that locating, reading and borrowing materials can be done quite efficiently manually. Users can also conduct literature searches on the internet on the premises. The statistics supplied by the Institute (Table 6.3) show that access to the library has decreased significantly since 1999. The library is nevertheless functioning and viable. The electronic cataloguing system introduced during the project no longer exists largely because of lack of IT support, little common-ground with existing

Satisfaction	OPD	Social security unit	Vaccine injecting room	IPD	Total
1 Process	64.56	86.83	100.00	85.08	84.11
2. Staff	79.25	89.19	99.25	89.89	89.39
3. Convenience	75.14	84.20	86.67	87.26	83.31
Mean	72.98	86.74	95.30	87.41	85.60

Table 6.2 Results from Patient Satisfaction Survey 2003

(Per cent of patients satisfied with service)

	1999	2003
Customers	6573	2158
Books borrowed (Thai)	568	558
Books borrowed (English)	83	53
Journals borrowed (Thai)	212	123
Journals borrowed (English)	304	233
Assisted searches	138	70
Assisted outside searches	48	30
Internet (persons / day)	-	4-5 average
Internet (hours / day)	-	2-3 average

Table 6.3 Library statistics comparison: 1999 and 2003

software systems, because searching can be undertaken on the internet and because the manual system is simple and efficient. Review of the project documentation however, revealed that ISIS was a “stand alone” system, not requiring integration. Additionally, library staff had been trained by the WHO library with which linkages already existed.

AREAS PREVIOUSLY CONSIDERED UNSUCCESSFUL

The areas considered in the prior AusAID evaluation (Plant, Mijch, Malau and Songwathana 2002) to be unsuccessful are listed in Table 6.4.

EXTERNAL LINKS

The previous evaluation report (Plant, Mijch, Malau and Songwathana 2002) noted shortfalls in the development of collaborative links between the hospital and external organizations. Since that time, external links with HIV/AIDS organizations and academic and professional bodies have developed somewhat, but these still have some way to go to achieve their considerable potential.

As noted in the previous report the Institute is not a teaching hospital under the Department of Education but is under the control of the Centre for Disease Control. While these arrangements have undoubtedly assisted the Institute to develop into a successful specialist clinical institute, it

Unsuccessful areas in the joint Thailand-Australia HIV/AIDS Ambulatory Care Project

- > The establishment of links with academic institutions and other HIV/AIDS research and care institutions
- > The integration with other hospital activities (WHO) and with NGOs (MSF)

Table 6.4 Areas of TAACP that were considered to be unsuccessful in the project evaluation

is likely that these same arrangements make the formalization of external links with universities and other health bodies more difficult. Notwithstanding the above comments, the Team notes some of the Bamras clinical training programs have recently been revised and accredited for university-based nursing education. This is significant progress and hopefully sets the foundation for increasing collaboration with academic institutions.

Links with other HIV/AIDS Care Institutions remain under-developed. Bamras has many links with other health facilities for the purpose of patient referral. Many patients are accepted from other health facilities and eligible patients are referred from Bamras to relevant NGO services. Social workers play a particularly significant role in these referrals. However, beyond the service aspects, there are few collaborative projects with NGOs. The Training Centre periodically invites speakers from other health care institutions to present guest lectures largely on an *ad hoc* basis and depending more upon the skills and knowledge of the individual practitioners than any formal linkages.

The Institute is actively involved in delivering training for clinical staff from the region as part of its role as a WHO Reference Centre.

RESEARCH

Review of documentation showed a range of collaborative research projects undertaken since project completion. As one of the pivotal infectious diseases hospitals in Thailand the role of the Bamras hospital as a resource for clinical material in research is undisputed, and this along with the growing reputation of the Institute, has most likely contributed to the increase in research linkages. Although many of these are externally coordinated, through either academic institutions or research institutions, Bamras staff have played key roles in the coordination and collection of key clinical information.

With the conversion of the Bamrasnaradura Hospital to an institute and as part of Thai health system reforms and ISO 9001:2000 accreditation strategies, professional staff are encouraged to undertake research, which has been made a pre-requisite for promotion. Nevertheless, the Team concluded that it will still take some time and effort for a research culture to be widely embraced. Moreover, many respondents report heavy time constraints which work against undertaking research.

CONCLUSIONS

What is the status of aspects of the project described in the previous evaluation as being 'partially or not successful'?

- > The status of 'nurse practitioner' continues to exist internally at the Bamrasnaradura Institute, but its future is precarious and it is likely that the role will be superseded by a newly evolving generalist 'nurse practitioner' with national accreditation that is emerging in the Thai university system.
- > The inpatient clinical services at the institute are multidisciplinary and are available for people with HIV and their families, carers and significant others. These services consist of medical, nursing, counselling (as per Table 3.6) and some peer support.
- > Patient satisfaction surveys are still being undertaken although the methodology has changed considerably. The survey itself has been simplified and each department is responsible for undertaking the survey with clients. Results are collated and analyzed by the Quality Development Control Centre.
- > The library services are functioning well, although there appears to have been a decline in patronage since 1999. The electronic catalogue established during the project no longer exists but library staff consider the older methods sufficient.
- > The laboratories provide sound HIV diagnostic and monitoring services. The equipment obtained during the project continues to be useful.
- > The establishment of external links has progressed since the end of the project. The Institute provides contract training for Thailand and the region with the support of international agencies.
- > Links with universities have progressed with some Bamras training courses having achieved accreditation towards university-based nursing degrees. Collaborative research projects have also strengthened these links.
- > A strategy is in place to develop the internal research capacity of the Institute.

7 Additional Observations, Implications and Lessons Learned

SUMMARY

A number of factors have impacted on the sustainability of the outcomes of the TAACP since its completion in 2001. These, along with lessons learned and implications for the future, are discussed below.

THE IMPACT OF LOCAL CONDITIONS

Local conditions understandably dictate the modification of policies, programs and procedures developed at Bamrasnaradura before they can be deployed. Some of these modifications are constructive and adaptive; others reflect compromises because local resources and organizations cannot accommodate the full model. In either case then, it is not surprising that the Team was not able to identify a single case where the Bamrasnaradura ambulatory care model was deployed in its entirety. Rather, it was usual for elements to be used in a more modular fashion.

HEALTH SYSTEM REFORMS

The Thai economic and policy climate has been in a state of flux in recent years and this has affected public sector capacity. The health system in particular, has been subject to extensive reforms, including a drive to obtain ISO 9001:2000 accreditation and the introduction of the '30 Baht policy' in order to guarantee universal health care access. Both of these policies offer prospects for better care for people with HIV/AIDS, many of whom are impoverished because of AIDS and also suffer from stigma and discrimination (Brown, Chan, Mugrditchian et al 1998; Linge & Porter 1997). The ISO 9001:2000 accreditation process does seem to have led to a systematic approach to managing health care services, although this cannot be assumed to automatically benefit patient care.

IMPROVED INTEGRATION BETWEEN HOSPITAL DEPARTMENTS

Bamras staff reported that cooperation and collaboration between hospital departments had improved considerably. This had resulted in better coordination of patient care and a genuine multidisciplinary approach. Departments are more aware of the work of other departments and refer to workers in other disciplines where necessary. Referral between departments/professions appears to be occurring more frequently with better communication about patients through ward rounds and case conferences. Staff morale in general was high, trainers who were interviewed said that their hospital professed to be a centre of excellence, and although the training was an additional strain to their workload, they felt proud to contribute.

ONGOING SUPPORT FOR TRAINEES AND NON-SPECIALISED SERVICES

The issue of ongoing support for people who attend Bamrasnaradura training courses emerged as a potentially useful way to drive the benefits of training further. It was clear from the accounts of former trainees that the Bamras training was very beneficial and often translated into improved clinical practice. However, local circumstances often reduced the benefits that could be gained for the home service after staff had been trained. It was clear that a system of ongoing support for attendees after training could be useful, in much the same way that the peer mentoring between the Albion Street Centre and the Bamrasnaradura Institute produced sustained benefit some years earlier. The strategies that received some

support during interviews were: (i) to adapt training materials even further so that there was greater attention given to translating education into practice in the trainees' diverse services of origin; (ii) to explore the possibility of formalizing access to advice and ongoing support by establishing a 'Clinical Advice Hotline' with the express brief of supporting infection control and infectious diseases practice externally; (iii) to explore the possibility of having field officers from the Bamrasnaradura Institute whose role would be to visit external hospitals and welfare organizations whose staff have previously attended training programs. The purpose of these field visits would be: to support the subsequent development and implementation of policies and procedures, thereby translating training into practice; for those field officers to use their field experience to develop and refine course materials so that they are in-tune with external circumstances; and to further promote the Bamrasnaradura training programs.

STUDY TOURS AND SITE VISITS

Bamras staff mentioned the benefits of study tours arranged by the project. Some staff considered these as being particularly useful and inspirational. One example was given of a hospice that was visited that arranged recreational activities for people with HIV, their families and carers. These activities gave terminal stage people with HIV the opportunity to interact with their loved ones in a happy, supportive environment. This example was then implemented in Bamras, providing clients, their families, carers and

friends the opportunity to spend quality time together. The Team noted during the field visits that participants of Bamras training programs had also experienced similar benefits from touring Bamras facilities. Many sites reported greater involvement of the significant others of people with HIV in care after observing these practices at Bamras. The findings emphasise the potential of observation to influence work practices and highlight the importance of study tours and site visits as an essential component of training.

CHARITABLE ORGANIZATIONS

There is a need for greater recognition of the role that charitable organizations play in the care of people with HIV in the community (ranging from prevention to ambulatory care to hospice services). These organizations save the public purse a considerable amount in providing these services, and the Team recognised considerable potential benefit from improved access to training, education and professional development for staff and volunteers from those organizations; and greater funding to support personnel from those organizations who want to participate in training.

THE CHANGING LANDSCAPE OF HIV TREATMENT

The increased access to, and affordability of, combination antiretrovirals has changed the landscape of HIV care in Thailand. There has reportedly been a resulting ease of demand for acute and in-patient services and a greater focus on

ambulatory care and monitoring. Here too, the Institute has modified its approach both to clinical services and to training. While these developments are to the credit of the Bamrasnaradura Institute, there is a clear possibility that attention to HIV/AIDS will decline in the shadow of more generic approaches to infectious diseases, particularly new and re-emerging infections.

NEW AND EMERGING INFECTIONS

New and emerging infectious diseases as well as the changing face of the AIDS epidemic have influenced the shape of programs delivered by the Bamrasnaradura Institute. The appearance of SARS and potentially dangerous influenza strains and the re-emergence of multi-drug resistant tuberculosis have triggered renewed interest in infection control procedures. The original courses developed as part of the Thailand-Australia collaboration at Bamras have been modified and used widely in response. Convincing evidence emerged during the Team's visits to other health centres that staff who attended Bamras training on Standard Precautions, ('HIV transmission in health care settings and standard precautions'), introduced their new knowledge and skills into their daily practice and some were instrumental in updating and developing Infection Control Policies and Procedures for their facility.

THE THREAT OF MULTI-DRUG RESISTANT TUBERCULOSIS

Tuberculosis continues to be a serious problem in Thailand. Many hospitals do not have adequate access to hand basins in wards or isolation rooms for smear positive (infectious) cases (Chin 2000). Wards in some hospitals are over-crowded to the point that there is considerable risk to patients and staff in the wards. The Team received various reports of staff having contracted TB.

INFECTION CONTROL VULNERABILITIES

While interest in infection control appears to have grown in recent years, the capacity of some services to respond adequately is compromised by clinical systems and physical conditions. During site visits, the Team noted the severe overcrowding in some Thai clinical facilities, the lack of sufficient basic equipment such as hand basins, and insufficient single rooms available to contain serious suspected pathogens (such as pulmonary tuberculosis). Problems with clinical systems and the physical environment clearly pose important infection control risks in the hospital (Chin 2000). The Team was made aware of staff who had contracted tuberculosis apparently in the course of their work and other staff who had apparently sustained needle stick injuries and were HIV positive. Moreover, the capacity to control certain airborne infections has potentially important strategic and economic implications for Thailand and the region. The Team therefore recognised an important need to further assist in developing hospital infection control systems.

SYNERGIES WITH OTHER SEXUALLY TRANSMISSIBLE DISEASES

During 1992 in a landmark paper on the links between HIV and other STI, Judith Wasserheit introduced the concept of 'epidemiologic synergy' (Wasserheit 1992). Wasserheit's analysis of the available research demonstrated the intimate relationship between the presence of other STI and the potential for HIV to spread. In short, other STI (more often than not, silent and widespread) act as potent amplifiers of the HIV epidemic (Wasserheit 1992; Brown, Chan, Mugrditchian et al 1998). With this in mind, the Team notes the apparent disassociation between HIV and STI in terms of service provision, at least for the services reviewed during the present study. While not an uncommon situation also seen in other countries, given the extensive common ground between HIV and other STI – transmission, synergy, behaviour, prevention, clinical skills, stigma and working with marginalised populations – it is surprising that more concerted, systematic efforts have not been undertaken to *minimise* the epidemiological synergies by *maximising* the clinical synergies and service efficiencies. Improved STI services would deliver a range of additional benefits too, including maternal and child health, women's health, sexual health education and improved access to health care for some marginalised populations (Brown, Chan and Mugrditchian et al 1998; Linge and Porter 1997). There is clearly a case for assisting in the development of STI services in Thailand – and better links between STI and HIV strategies and service delivery in particular.

RESEARCH FELLOWSHIPS

A fellowship program was planned as part of the original collaboration to provide training in design, implementation and analysis of health research. Initially three full-time fellowships were allocated and it was agreed that they be offered nationally. Subsequently six half-time fellowships were awarded with one fellowship awarded to a clinician outside the Institute and five fellows drawn from the Hospital staff. The changes were based on recipient negotiations, returns to the Hospital and sustainability issues. Of the six fellowships awarded, only one has been completed to date (Dr Prasithsirikul) and that completion resulted in a single local publication (Prasithsirikul, Prasithsirikul, Sirisakulveroj, Chumpathat and Chaovavanich 2004) and a presentation at an international conference.

The Team found that although the system of research fellowships established by the project was well intended it was only partially successful and had less than ideal outcomes. There were several barriers to the success of this part of the project, the most important being the lack of available time to dedicate to the individual projects. One fellow could not get approval by the ethics committee and another fellow left to work at another institute. The other projects, although not completed by the end of the allotted time, seem to have become a low priority. For the three remaining fellows who are still actively involved in research at the Institute, the skills and knowledge gained through the fellowship process seem to have been valuable.

DEVELOPING RESEARCH CAPACITY

The Team identified a need for more effective assistance to develop the research capacity in infectious diseases and public health at the Bamrasnaradura Institute – not merely in the biomedical sciences, but also in clinical care, health sociology, health services management and public health. There is a wealth of information collected by staff at the Institute that could be transformed into research papers, conference abstracts or presentations. The Bamras Institute is constantly refining its care models and should be supporting staff to disseminate these developments. The Team concluded that in order to develop research capacity, a research culture is needed and to establish a research culture, a more systematic, focused, dedicated, funded approach is required.

CONCLUSIONS

- > Local conditions strongly influence the implementation of training received at Bamras and need to be taken into account when training is designed and delivered.
- > Economic conditions and health system reforms affect the delivery of clinical services and training. The pursuit of ISO 9001:2000 appears to have strengthened the documentation of policies and guidelines. The '30 Baht policy' and the '3 by 5' strategy promise improved access to HIV care and treatments for many Thais.

- > Better communication between hospital departments is associated with better multidisciplinary care and improved morale.
- > Increased systems of support for external trainees after attending Bamras programs are recommended to maximise the benefit gained from programs.
- > Greater exposure of Bamras staff to external models of care will lead to cross fertilisation of ideas and improve training and clinical services at Bamras, as was seen in the case of palliative care.
- > The charitable sector is an important provider of services for people with HIV. This sector could benefit from strategies aimed at improving access to Bamras training and services.
- > Greater affordability and improved access to a wider range of HIV antivirals is changing the landscape of HIV care.
- > New and emerging infections appear to have stimulated a raised awareness of the importance of infection control and have provided impetus for the modification and expansion of Bamras training programs.
- > The combination of multi-drug resistant tuberculosis and HIV potentially constitute a grave public health problem. This combination alone warrants greater attention to improved infection control strategies.
- > Exploiting the potential synergies between HIV and STI clinical services has considerable potential for improving HIV control and for a range of other benefits.
- > A strategy to support the development of research, needs to focus on generating a new 'research culture' in an institution.

8 Impact Evaluation Conclusions

The present impact evaluation was commissioned to study the outcomes of the TAACP. On the surface, this evaluation appears unusual because the target project was completed several years ago and has already been the subject of an evaluation during its closing phases (Plant, Mijch, Malau and Songwathana 2002). However, the present evaluation was designed specifically to examine questions of sustainability – whether or not the project benefits have survived, developed and continue to provide direct and indirect benefits for the Thai people several years later. To do this the study team was asked to investigate six primary questions. A consolidated summary of the impact evaluation findings for each of these questions is provided below.

DOES THE BAMRAS AMBULATORY CARE MODEL STILL EXIST AS IMPLEMENTED DURING THE PROJECT?

For all intents and purposes, the services provided by the ambulatory care unit are the same as they were at the end of the project. Ambulatory care continues to bridge the gap between general outpatients and inpatients in that it provides specialised day patient care in designated facilities from a dedicated team at a higher level than standard outpatient consults do; and depending on test results and responses to treatment, there is the option of transferring patients to an inpatient ward at the end of the day.

The Bamrasnaradura Institute offers people with HIV, their family and carers, a range of clinical services in inpatient, outpatient and ambulatory care settings. These clinical services are supported by the Pharmacy and Laboratory departments. As part of the clinical care available at Bamras, patients, families and carers have access to a range of multidisciplinary services including:

- > Medical services such as dermatology, ophthalmology, antenatal care, surgery, paediatrics, obstetrics, gynaecology, ENT, dental, physiotherapy ambulatory and emergency care
- > Nursing care including patient education sessions and individual patient education
- > Counselling services (as per Table 3.6)
- > Pharmacy services including pharmaceutical counselling
- > Peer support (Candle Light Club)

Referral between the units has improved according to staff and patients are more able to access multidisciplinary care according to their needs.

The Institute provides multidisciplinary services for people with HIV and their family, carers and significant others. The multifunctional roles of ‘Nurse Counsellor’ and ‘Nurse Nutrition Counsellor’ continue to be utilized. Nurses are also taking on other roles such as research and training. Specialist nurse practitioner roles in the HIV ambulatory care unit of the Bamrasnaradura Institute exist in limited numbers but the future of these roles is unclear and may be overshadowed by national trends. Duplication of functions was not observed on any scale and does not seem to be a problem.

The number and type of protocols and standard operating procedures available at the Bamrasnaradura Institute has increased since project completion. Policies and operating procedures reflect Thai health policies and development and adaptation of

documentation established during the life of the project. Many policies and procedures were developed to meet International Standards Organization accreditation and some have been developed since.

A list of policies and procedures inspected by the evaluation team can be found in Appendix 11. Relevant policies and procedures are kept at individual wards/stations along with copies of hospital wide policies such as ‘Prevention of Fire’. Copies of all policies and procedures are also kept in the ISO Centre (known as the Quality Development Control Centre). Counselling Unit operating procedures (including nutrition) are also available. Evidence of staff adhering to policies and procedures was found in the occupational exposure statistics for the hospital, which show a decrease in reported exposures from 1999.

HAS TRAINING AND EMPOWERING OF WARD-BASED CLINICAL STAFF IN CONDUCTING HEALTH WORKER TRAINING BEEN SUSTAINED?

The clinical training unit continues to provide quality clinical training for staff from Bamras, external organizations and health workers from nearby countries. Training is conducted by a range of staff including experienced clinicians. There are varying accounts of how much support is given to hospital staff to deliver training, which probably indicates a fairly *ad hoc* arrangement depending on the unit involved. In general, trainers have undertaken additional education in their own clinical discipline, and many have had additional education in English language

skills, but few have had further training in adult education. There is evidence that course delivery extends beyond didactic presentations. There have been modest steps towards mentoring new trainers. Available courses cover a broad range of topics and have been expanded in range, revised in content and increased in the frequency of delivery since the collaborative project was completed. The evidence is that at least some of the training has led to improvements in knowledge, competence, praxis and clinical systems. Importantly, these do not appear to be isolated improvements. Under the auspices of the WHO and international donors training is being delivered to health workers from nearby countries including, Bangladesh, Bhutan, Cambodia, China, East Timor, India, Indonesia, Lao PDR, Maldives, Myanmar, Nepal, Papua New Guinea, Sri Lanka and Thailand.

HAS THE BAMRAS TRAINING PROGRAM BECOME SELF-FUNDING AND SUSTAINABLE?

The Bamrasnaradura training programs have grown since the end of the joint project. There is evidence that the programs continue to deliver valuable outcomes for Thailand and the region. In that sense, the programs are sustainable. However, the financial sustainability of the programs depends on continued support by the Thai Government, the Bamrasnaradura Institute and international donors. Some courses are run on a fee-for-service basis as was originally planned and others are funded through contract-based lump sum payments. The courses are best suited to public employees, and provide a particularly

rich curriculum for nurses. It appears as if charities and non-government groups are at a particular disadvantage when accessing the system.

HOW HAVE THE INFORMATION, EDUCATION AND COMMUNICATION RESOURCES BEEN UTILIZED BY BAMRAS E.G. PRINTED INFORMATION SHEETS/LEAFLETS AND VIDEO?

Information, education and communication materials continue to be produced by the Institute (albeit often photocopies of the originals). Some from the original project have been discontinued, some have been revised and others have been newly developed in response to changing circumstances (notable in response to emerging infectious diseases and new antivirals). Some funding for materials has been accessed from the private sector (e.g. drug companies). The video developed by the joint project has been widely distributed to 742 sites in Thailand, but not to neighbouring countries.

HAS THE MODEL BEEN EXTENDED INTO OTHER SETTINGS? IF SO, HOW HAS IT BEEN ADAPTED?

The Team is not aware of any attempts to faithfully replicate the Bamras Ambulatory Care model, although various examples were identified where elements of the model were adapted for local use. These elements include pre and post HIV test counselling, infection control procedures, aspects of HIV ambulatory and palliative care and nutritional counselling. Barriers to the

wholesale adoption of the ambulatory care model are various and include: the relative lack of authority of the staff who undertake training; relatively high generic patient load and lower HIV caseload; the organization of patient flows; the physical environment of the service; the competing pressures exerted by other clinical issues; the disposition of key personnel towards HIV-related issues; hospital budgets; stigma and privacy issues mitigating against highlighting HIV; and pressures to mainstream HIV and to conform to generalist approaches in health care.

The major differences between ambulatory care implementation at the Bamrasnaradura Institute and external services relate to the specialised focus of Bamras. Lower patient loads in other services make it difficult to justify facilities specifically dedicated to HIV care. Unlike Bamras, most external services have adapted the Bamras training so that patients with HIV are managed in general hospital wards and ambulatory HIV patients access clinical services from general emergency and outpatients departments, albeit with access to specialised staff and clinical sessions within that framework (for example, antiviral clinics and counselling). The ‘mainstreaming’ of HIV in this way understandably results in pressure to treat people with HIV in similar ways to other patients. While logically this could be seen as an argument to upgrade care for everyone, in reality the physical environment and service organization prevent this ideal from being achieved.

Finally, there are methodological reasons why the impact evaluation is unable to directly assess whether adoption of the ambulatory

care model had been more successful in services that sent staff for training; however it is clear that many staff who did attend training subsequently translated that training into better practice and improved clinical systems in their home service.

WHAT IS THE STATUS OF ASPECTS OF THE PROJECT DESCRIBED IN THE PREVIOUS EVALUATION AS BEING ‘PARTIALLY OR NOT SUCCESSFUL’?

- > The status of ‘nurse practitioner’ continues to exist internally at the Bamrasnaradura Institute, but its future is precarious and it is likely that the role will be superseded by a newly evolving generalist ‘nurse practitioner’ with national accreditation that is emerging in the Thai university system.
- > The clinical services at the Institute are multidisciplinary and are available for people with HIV and their families, carers and significant others. These services consist of a range of medical, nursing and counselling services and access to a peer support group.
- > The library services are up-to-date and functioning well, although they appear to have had a decline in patronage since 1999. The electronic catalogue established during the project no longer exists, largely due to lack of sustainable IT support arrangements.
- > The laboratories provide sound HIV diagnostic and monitoring services. The equipment obtained during the project continues to be useful.

- > External links have improved since the end of the project. The Institute is providing contract training for Thailand and the region.
- > Links with universities are starting to progress, and some training courses are accredited towards nursing degrees.
- > A strategy is in place to develop the research capacity of the Institute. There have been less than ideal outcomes from the research fellows established as part of the joint project.
- > Greater exposure of Bamras staff to external models of care will lead to cross fertilisation of ideas and improve training and clinical services at Bamras, as was seen in the case of palliative care.
- > The charitable sector is an important provider of services for people with HIV. This sector could benefit from strategies aimed at improving access to Bamras training and services.
- > Access to improved HIV antiviral drugs is changing the landscape of HIV care.
- > New and emerging infections appear to have stimulated raised awareness of the importance of infection control and the subsequent modification and expansion of Bamras training programs.

ADDITIONAL OBSERVATIONS, IMPLICATIONS AND LESSONS LEARNED

- > Local conditions strongly influence the implementation of training received at Bamras and need to be taken into account when training is designed and delivered.
- > Economic conditions and health system reforms affect the delivery of clinical services and training. The pursuit of ISO 9001:2000 appears to have strengthened the documentation of policies and guidelines. The '30 Baht policy' and the '3 by 5' strategy promise improved access to HIV care for many Thais.
- > Better communication between hospital departments is associated with better multidisciplinary care.
- > Increased systems of support for external trainees after attending Bamras programs is recommended to maximise the benefit gained from programs.
- > The combination of multi-drug resistant tuberculosis and HIV potentially constitute a grave public health problem. This combination alone warrants greater attention to infection control.
- > Exploiting the potential synergies between HIV and STI clinical services has considerable potential for improving HIV control and for a range of other benefits.
- > A strategy to support the development of research needs to focus on generating a new 'research culture' in an institution.

SUMMARY

The Team was able to confirm that the TAACP was a very successful project, which continues to provide enduring benefits for Thai people some years after the project was completed. The Team suggests that this outcome is because the project had its origins in, and was provided by, experienced grass-roots service providers in a genuine partnership with their Thai counterparts; that the project was deployed in a timely manner when Thailand was in particular need; and that there has been ongoing support from the Bamrasnaradura Institute, the Thai Ministry of Public Health and international donor organizations.

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Appendix 1

KEY DATES FOR THE THAILAND-AUSTRALIA HIV/AIDS AMBULATORY CARE PROJECT

TAACP timeline	
September 1994	Visit to ASC by Dr Udomsil Srisangnam, Deputy Minister for Health to review the Centre's activities and to determine the potential for collaboration with Thailand.
November 1994	Visit by ASC representatives to the Bamrasnaradura Hospital, Bangkok, nominated by the MoPH as the National HIV/AIDS Training Centre. Submission for AusAID Thailand Small Grants Assistance Scheme (SAS) for funding of a needs assessment.
February 1995	Following approval by AusAID, DTEC and MoPH, a needs assessment and initial appreciation of Thai HIV/AIDS health care delivery issues was conducted by a team from ASC.
January 1996	Feasibility study undertaken in Thailand by AusAID-ASC team. Project Design Document (PDD) commenced.
April 1997	Commencement of the collaborative Project and establishment of the Project office at the BIDH.
Early 1997	Bamrasnaradura Hospital becomes a WHO Collaborating Centre for Training and Research on HIV/AIDS Clinical Management and Counselling.
April 1998	Technical and Mid-term Review – increases the scope and length of the Project. A further year is funded with agreed outputs in Pharmacy, Laboratory and Research.
May 2001	AusAID sponsors external evaluation of the Project to coincide with the final stages of the Project. A Project Evaluation Team (PET) is formed.

June 2001	<p>Four year (50 month) Project completes contractual objectives with outcomes to be independently assessed and reported by the PET. AusAID agreed to provide a small amount of additional funding (A\$55,000) for an additional six month period, in order to further strengthen the Regional Training Centre (RTC). Funding enabled:</p> <ul style="list-style-type: none"> - appointment of two Thai staff to provide administrative support to the RTC - ASC technical advice to develop a marketing plan - assistance with IT including in-house training of BIDH staff and development of the RTC web page
October 2002	Bamrasnaradura Infectious Diseases Hospital becomes the Bamrasnaradura Institute
December 2003	Bamrasnaradura Regional Training Centre formally established

Appendix 2

IMPACT EVALUATION STUDY QUESTION MATRIX

Title	Questions
<p>Has training and empowering of ward-based clinical staff in conducting HCW training been sustained?</p>	<ul style="list-style-type: none"> > Who is doing the training? (clinical vs administrative staff, junior vs senior staff) > Are trainers being supported by hospital to conduct training i.e. given time off normal duties to prepare, review etc > Any ongoing education programmes for trainers? > What training programs are being offered? Have Thais expanded courses offered from project related training courses? > What methodologies are being utilized e.g. didactic vs participatory? > Are younger/clinical based staff being trained by ToT? > How well is training being conducted? > Are training programmes being accessed by health professionals outside of Thailand, e.g. Lao PDR, Vietnam, Cambodia?
<p>Does the Bamras Ambulatory Care model still exist as implemented during the Project?</p>	<ul style="list-style-type: none"> > Does the model still exist? Is the model still multidisciplinary, i.e. what are the services being offered to PLWHA/ family and carers? e.g. counselling, nutrition etc > Has the model been replicated in any other health care facilities that treat/care for HIV infected patients, particularly at district and community hospitals and within CBOs? > What are the roles of staff within the unit? Are staff still providing multi-functional roles e.g. nurse counsellors? Any blurring of roles and responsibilities? Any unnecessary repeating of procedures including data collection? > Are protocols and procedures developed during the project still being adhered to? Are they easily accessible to staff and are they used as part of ACU unit staff orientation/training?

<p>Has the model been extended into other settings? If so, how has it been adapted?</p>	<ul style="list-style-type: none"> > Has the Bamras model as a whole been adopted/ adapted by other health care facilities? If so have there been any adaptations to the model? > Have aspects of the model, been implemented in other health care facilities? If so, which are the most popular aspects and why, and why have other aspects not been adopted (identification of barriers)? > Has adoption/adaptation of the model been more successful in facilities that have sent staff to Bamras for training or in facilities where Bamras staff have been sent to conduct training? > How does the type of care provided by hospitals and community health centres that have adapted the model or aspects of the model compare to the type of care provided by hospitals and community health centres that have not been involved in the Bamras training programme? (i.e. have traditional methods of care adapted aspects of multidisciplinary care, ambulatory care and multi-tasking of staff or do these exist only as part of the Bamras model of care?)
<p>Has the Bamras training program become self-funding and sustainable?</p>	<ul style="list-style-type: none"> > Are participants paying to attend courses? > Is costing structure (or adapted version) implemented by ASC still being utilized? > If so does this cover the cost of conducting training adequately i.e. is Training Centre making any profits? > If so, how are these profits being used e.g. to fund further education for Bamras staff (particularly training staff)
<p>How have the IEC resources been utilized by Bamras e.g. printed information sheets/leaflets and video?</p>	<ul style="list-style-type: none"> > Are IEC leaflets/sheets still being produced and disseminated by Bamras? > Has Bamras utilized knowledge and skills in developing IEC to produce their own IECs? > How is production of IECs currently being funded? > How successful has the video been in attracting business from Mekong countries? > Have any linkages with Mekong health care facilities been established/ strengthened through the Bamras training programmes and/or the transfer of Bamras ACU model?

<p>What is the status of aspects of the project described in the previous evaluation as being ‘partially or not successful’?</p>	<ul style="list-style-type: none"> > Does the role of ‘nurse practitioner’ still exist, and if so, how is it being utilized within the Bamras model, particularly within the inpatient setting? Is the role of nurse practitioner recognised in any written protocols/ SOPs? > What multidisciplinary services are available for inpatients? > Review of library services offered and utilization of library by hospital staff. > Review of laboratory services – have project developed protocols, knowledge and skills continued to be used? > Have nature/ strength of links with other HIV/AIDS research and care institutions changed? If so how and why? > Have nature/ strength of links with academic institutions changed? If so how and why? > Have the research fellows continued to be involved in research and has any of the research been published or utilized by the hospital to inform clinical practice?
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Appendix 3

THAI IMPACT EVALUATION INTERVIEW GUIDE

Introduction

- > Thanks
- > Interviewers
- > Participants
- > Project

1. Does the Bamras Ambulatory Care model still exist as implemented during the Project?

2. Has training and empowering of ward-based clinical staff in conducting HCW training been sustained?

3. Has the model been extended into other settings? If so, how has it been adapted?

4. How have the IEC resources been utilized by Bamras e.g. printed information sheets/leaflets and video?

5. Has Bamras training program become self-funding and sustainable?

6. The status of elements of the project described as being 'partially or not successful'

- > Status of the role of 'nurse practitioner'. How is it being utilized, particularly in the inpatient setting? Is the role recognized in any written protocols/SOPs?
- > What multidisciplinary services are available for inpatients?
- > Review of library services offered and utilization of library by hospital staff.
- > Review of laboratory services – are project protocols, knowledge & skills still used?
- > Have links with other HIV/AIDS institutions changed? If so how and why?
- > Have links with academic institutions changed? If so how and why?
- > Have the research fellows continued to be involved in research? Has any of the research been published or utilized to inform clinical practice?

7. Other observations / unintended consequences

- > Lessons learned
- > Elements survived V modified V declined
- > Timeline – situation before / during / since project
- > Introduction of ARV; 3 by 5 program
- > Economic issues; staff freeze; staff / patient ratios ; private hospitals
- > Added stress; workloads; caseloads
- > Loss of staff b/c training; poaching once trained
- > IT development
- > WHO collaboration

8a. Area Specific Issues: Clinical Services

- > Admin support
- > External support / donors
- > External links / model used elsewhere?
- > Visitors
- > Training / higher duties / supervision
- > Service range
- > Multidisciplinary team / roles / nurse practitioners / lumbar puncture
- > Family / carers / outreach / Candle Light club
- > Long term staff v new staff
- > Documentation / protocols / procedures / flow chart
- > Stats / occasions of service / staff levels / staff turnover / workload / patient numbers / procedures / hours / waiting times

8b. Area Specific Issues: Education, Training & Professional Development

- > Admin support
- > Funding sources
 - external support / donors
 - Bamras funding
 - user pays / participant funding / cost recovery / sale of resources / marketing
- > 'Competing' programs
- > Who delivers programs?
- > Training / translates into practice / higher duties / supervision
- > Timeout / clinical relief / professional development support
- > Train the trainer recruitment?
- > Original staff / new staff / turnover
- > Program range (cf published booklet)
- > Programs responsive to demand & needs?
- > Program quality indicators / evaluations / stats / trainee demographics
- > IEC resources / range / stock levels / reprints
- > Fate of materials / revisions / QA / pamphlet committee / adaptation / export
- > External links / model used elsewhere?
- > External participants / external delivery / Mekong countries
- > Cultural issues / languages / resource poor settings
- > Additional documentation

8c. Area Specific Issues: Administration

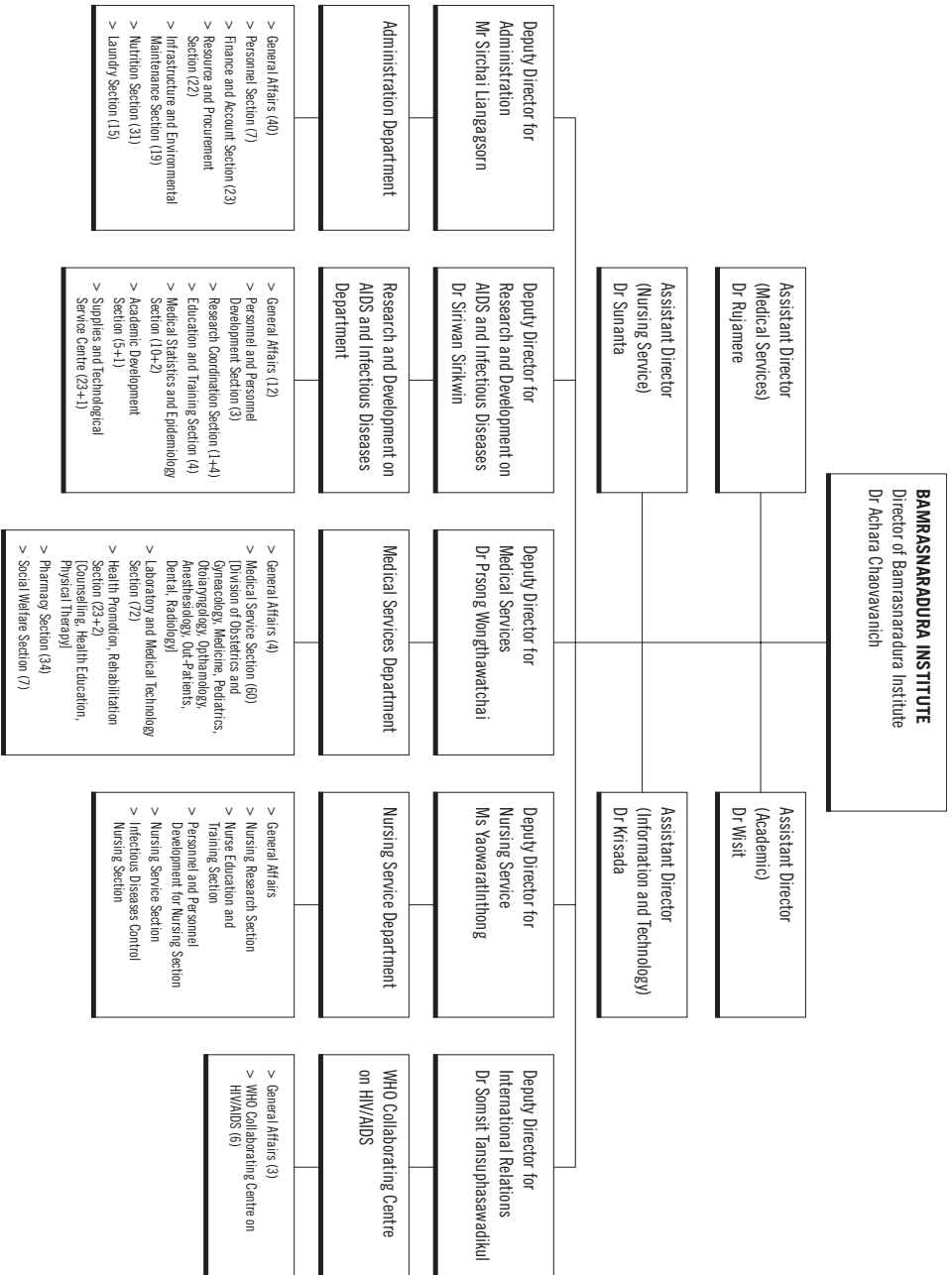
- > External links
 - WHO / UNAIDS
 - Donors
 - NGO's / MSF
 - Universities
 - National AIDS Council
 - HIV Nat
 - Thai Red Cross
 - Other hospitals / provincial health services
 - Mekong countries
- > External service delivery / export of model / other hospitals
- > Visitors / study tours / placements / training intake
- > Professional development
- > Pressures
- > Funding
- > Donors
- > Comparison with other hospitals
- > Nurse practitioners
- > Stats / occasions of service / staff levels / workload / patient numbers / procedures / hours / waiting times
- > Additional documentation

8d. Area Specific Issues: External Agencies & Linkages

- > WHO / UNAIDS
- > Donors
- > NGO's / MSF
- > Universities
- > National AIDS Council
- > HIV Nat
- > Thai Red Cross
- > Other hospitals / provincial health services
- > Mekong countries
- > Awareness of Bamras roles / 'social marketing'
- > Access to Bamras materials / use of
- > Utilization of Bamras services
- > Collaboration with Bamras
- > Support for Bamras work
- > Interagency competition / rivalry / collaboration
- > Additional documentation

Appendix 4

BAMRASNARADURA INSTITUTE ORGANIZATIONAL CHART



Appendix 5

HIV LABORATORY TESTS AT THE BAMRASNARADURA INSTITUTE

The table lists the number of tests performed for the fiscal year 2003/4. The tests listed were selected because they are regularly used in HIV care and reflect the diagnostic capacity of the Bamrasnaradura Laboratories. In addition, the Bamrasnaradura Institute performs a range of tests used in general clinical care (not listed).

Rapid (1hour) HIV test	<p>Office hours</p> <p>General patients: 1 HIV patients: 1789 Total office hours: 1790</p> <p>After hours</p> <p>General patients: 301 HIV patients: 101 Total after hours: 402</p> <p>Total: 2192</p>
CD4, CD8 counts	<p>Office hours</p> <p>General patients: 1 HIV patients: 1789 Total office hours: 1790</p> <p>After hours</p> <p>General patients: 465 HIV patients: 698 Total after hours: 1163</p> <p>Total: 2,953</p>
Toluidine Blue Stain for PCP	16
Mod. AFB stain for Cryptosporidium	857
India ink preparation for yeasts	1,180
Acid Fast Bacillus microscopy	7,812
Mycobactium tuberculosis culture	1,960
Toxoplasma antibodies (IgG)	56
Cryptococcus antigen	796
Cerebrospinal fluid examination	2,960

Appendix 6

EVALUATION OF TRAINING COURSES

A member of the evaluation team observed two training courses in July 2004. The first – ‘Pre and post HIV test counselling’ (PPTC) – is a four-day course regularly conducted by the counselling team at the Bamrasnaradura Institute. The second course – ‘HIV transmission in the health care setting and standard precautions’ (HIV TRANS) – is a five-day module regularly conducted by the nursing team of the Bamrasnaradura Institute.

A pre-designed evaluation form was used to guide the observations and to record comments. Overall, the Team noted that in both training courses the trainers were confident and open and knew their subject matter well. They engaged the participants using interactive teaching methods and successfully facilitated various group activities and discussions. Handouts were available and slide presentations varied to keep the interest of the group.

Both courses employed evaluation tools and demonstrated evidence of having modified the original course content based on participant feedback and new and emerging information and trends. In the counselling course, three sessions had been combined into one to address common difficulties that trainees had previously experienced in role play activities. This adjustment reportedly alleviated those difficulties. In the nursing course, the content had been updated

and new information had been included to address new and emerging infectious diseases, such as SARS and avian influenza.

The one area that further opportunity existed for improvement was ‘follow-up’. While both courses offered contact details to trainees and encouraged them to contact the Training Centre should difficulties or further questions arise, there was limited discussion about implementing training and no formal mechanisms to later assist or assess the implementation of learning back into trainee workplaces.

CRITERIA	1 PPTC	2 HIV TRANS
Evidence of preparation		
Presenter has knowledge about trainees/participants needs and backgrounds	✓	✓
Room set up	✓	✓
Equipment checked	✓	✓
Audiovisual aids and notes prepared	✓	✓
Activities designed and “props” assembled	✓	✓
Content		
Presenter familiar with content – able to answer questions	✓	✓
Presented in a logical order	✓	✓
Structured – introduction, body, conclusion	✓	✓
Prior knowledge assessed (pre-training or at beginning) and built on	✓	✓
Appropriate to level of trainees/participants	✓	✓
Aims and objectives made explicit to trainees/participants	✓	✓
Appropriate to meet aims and objectives of session	✓	✓
Presentation skills		
Establishes rapport with trainees/participants	✓	✓
Facilitates motivation of trainees/participants through positive feedback etc	✓	✓
Maintains attention of trainees/participants	✓	✓
Uses a variety of presentation techniques	✓	✓

Uses participatory learning techniques appropriate to the content	✓	✓
Uses appropriate examples, anecdotes, or case studies	✓	✓
Appropriate non verbal behaviour – voice, posture, gestures, eye contact	✓	✓
Demonstrates enthusiasm	✓	✓
Gives trainees/participants ample opportunities to ask questions	✓	✓
Is able to facilitate small and large group activities	✓	✓
Is able to deal with difficult trainees/participants e.g. those who dominate group work etc?	✓	✓
Audio-visual aids (AVs)		
Uses AVs	✓	✓
AVs appropriate to content	✓	✓
AVs clear and non-distracting	✓	✓
Presenter demonstrates skill in using AVs – ease of use, does not obscure, etc	✓	✓
Evaluation		
Seeks (verbal/written) evaluation from participants and/or peers	✓	✓
Uses evaluation technique appropriate to content, objectives and participants	✓	✓
Uses evaluation results to modify subsequent training sessions	✓	✓
Follow up (this is not always appropriate)		
If learning skills – how will these be assessed?	×	×
Has implementation of training been considered and planned for?	Minimal	Minimal

Appendix 7

IMPACT OF REGIONAL TRAINING CENTRE PROMOTIONAL MATERIALS SURVEY

AIM

The aim of the survey was to assess the impact that the IEC/video package had on encouraging facilities to send staff to the Bamrasnaradura Institute (BI) for training or study tours, establishing or improving networking pathways and encouraging other health facilities to adopt aspects of the Bamras model of care for people living with HIV/AIDS.

METHOD

The survey (included at the end of this Appendix) was developed prior to the initial visit by one of the evaluation team to BI. The Director of the BI approved the content and the survey was then translated. A survey was sent to each facility that had initially been sent a copy of the IEC/video package. A stamped self-addressed envelope was also sent to increase the chances of the survey being returned. Returned surveys were collected by BI and relevant qualitative information was translated into English. After three months all the surveys were sent to Australia where they were entered into an SPSS (Version 10) database and analysed.

RESULTS

Return rate

The survey was distributed to 742 sites throughout Thailand and 311 surveys were returned. This equals a 42% return rate, which by social research standards is considered fairly low and therefore care should be taken when interpreting the results of this study. This return rate was, however, better than expected considering it had been roughly four years since the IEC/video package had been distributed.

Data entry

One of the surveys was unable to be entered as it had been photocopied and enlarged therefore much of the information was either missing or unable to be matched to the relevant questions. Additionally, the second half of question 6, which was to assess which areas/departments facilities had already established links with BI prior to 2001, was also unable to be entered. Most of the results presented are given as percentages of facilities responding to the question.

Question 1

Of 310 facilities that returned the survey, 154 (49%) recalled having received the IEC/video package.

Question 2

Before receiving the package in 2001 91% of the 309 respondents were aware of BI's (then referred to as Bamrasnaradura Hospital) reputation in working with PLWHA.

Question 3

17% of the 306 respondents had established professional links with the BI, then known as Bamras Hospital, prior to the completion of the project.

Question 4

Since receiving the package 34 facilities (11% of respondents) had sent staff to BI for training. Of those who had:

- > 56% were encouraged to do so due to receiving the IEC/video package
- > 26% did so because other staff had been sent to BI in the past and had found the training useful
- > 8% were encouraged to send staff to BI for training on the recommendation of other facilities
- > 12% of facilities sent staff for training because they had been invited to attend

Question 5

Since receiving the package only 28 facilities (9% of respondents) had sent staff to BI for a study tour or official visit. Of those who did send staff to BI for this purpose:

- > 32% were encouraged to do so due to receiving the IEC/video package
- > 43% did so because other staff had been sent to BI in the past and had found the visit useful

- > 11% were encouraged to send staff to BI on the recommendation of other facilities
- > Other reasons for study tours and official visits given included: invitations to attend conferences or meetings and to see how BI had established their infection control responses to HIV and other communicable diseases.

Question 6

Since 2001 40 facilities (13% of respondents) had established or strengthened professional links with BI. Of those that had improved linkages:

- > 18% were encouraged to do so due to receiving the IEC/video package
- > 33% had strengthened links because their existing links had proved to be of value
- > 8% were encouraged to strengthen or establish links with BI on the recommendation of other facilities
- > Other reasons contributing to the establishment or strengthening of links with BI included: having guest speakers from BI present at their facility and having a need for referral of (and greater consultation about) HIV positive patients.

Question 7

The responses to question seven can be summarised in the table below. Not all of the facilities who initially indicated they had received the video package, attended training, undertaken a study tour or visit or strengthened/established links with BI completed this question.

Intervention	DEGREE OF BENEFIT			
	Very Much	Moderate	A little	None
IEC/Video package	35%	47%	15%	3%
Training	65%	32%	3%	-
Study tour/official visit	70%	23%	7%	-
Linkages with BI	53%	35%	10%	2%

- > 136 of a possible 154 respondents completed this question. 82% of respondents who had received the IEC video package found the materials either very useful or moderately useful.
- > 31 of a possible 34 respondents completed this question. 97% of those facilities who had sent staff to BI for training had found the training either very beneficial or moderately beneficial.
- > 27 of a possible 28 respondents completed this question. 93% of facilities who had sent staff to BI on official visit or for a study tour had found the experience either very beneficial or moderately beneficial.
- > 40 of a possible 40 respondents completed this question. 88% of those facilities who had strengthened or established linkages with BI since 2001 had found the linkages either very beneficial or moderately beneficial.

In summary the majority of facilities who had received some intervention from BI had found the experience worthwhile. When asked to indicate how their staff had benefited the following were the top five responses (in order of popularity).

- > Improvement in staff knowledge
- > Improvement in understanding of HIV/AIDS
- > Improvement in care of PLWHA
- > Improvement in staff attitudes
- > Improvement in staff skills

Question 8

Of the 195 facilities who completed this question 73% said that they had implemented aspects of care, treatment and support of PLWHA learned through the interventions provided by BI. When asked to indicate which particular intervention/s had been the impetus for these changes in practice the following were the most popular responses (in rank):

- > IEC/video package
- > Attending training courses
- > Strengthening or establishing links with BI
- > Official study visits or tours of BI

DISCUSSION

In the four years since the IEC/video package was distributed many staff from the recipient facilities may have moved on or changed positions. In several of the responses were handwritten comments that the person completing the survey had not been employed by the facility when the package would have been received. It is not known to what extent these staff, and others assigned to complete the survey, would have checked with other staff who may have remembered receiving the materials. This aspect of the survey negatively biases the results, effectively lowering the number of respondents who would indicate that their facility had received some form of intervention from BI.

A number of surveys returned also indicated that their facilities had never received the package, however the records kept by the BI staff involved in the marketing of the IEC/video package were very thorough and only those facilities that were sent a package were also sent a survey.

Although the survey results indicate that the IEC/video package was not as effective as it was hoped it would be in attracting business to the BI Training Centre there is considerable evidence to suggest that the package was effectively used as a tool to instigate changes in practice in the care, treatment and support of PLWHA. There may have been many limiting factors for facilities who wished to visit BI, for example time, staffing, money, distance etc. With hindsight it may have been useful to have examined some of these limitations in the survey.

To conclude however, it was clear that those facilities who had received some intervention from BI, whether it be the package, training, study tours, professional linkages or a combination of these, not only felt that they had benefited in some way from the experience but had also been influenced to such an extent that they changed their practice, adopting aspects of the BI model of care, treatment and support of PLWHA.

THE SURVEY

Question 1

In 2001 your facility was sent a package of materials from Bamrasnaradura Infectious Diseases Hospital? The package included three items:

1. a video,
2. a document titled 'Regional Training Centre – Bamrasnaradura Hospital', and
3. a training course calendar.

Do any of the staff in your facility recall receiving the materials?

YES NO

Question 2

Prior to 2001 when this package was sent, was your facility aware of the work Bamrasnaradura Infectious Diseases Hospital was doing with people living with HIV/AIDS (PLWHA)?

YES NO

Question 3

Prior to 2001 when this package was sent, did your facility have any professional links with the Bamrasnaradura Infectious Diseases Hospital?

For example: did any of your staff have ongoing contact with staff at Bamrasnaradura to ask questions, refer patients, share information etc.

YES NO

Question 4

Since 2001 has your facility sent any staff to training courses at Bamrasnaradura Infectious Diseases Hospital?

YES NO

If yes, why did you send staff to training at Bamrasnaradura?

(Please tick all those that apply)

- 4a interested in training after receiving the package of materials
 - 4b other staff at our facility had attended training and found it useful
 - 4c heard about training courses offered at Bamrasnaradura from other facilities
 - 4d Other – please provide details
-

Question 5

Since 2001 have any staff from your facility visited Bamrasnaradura Infectious Diseases Hospital as part of an official visit or study tour?

YES NO

If yes, why did staff from your facility visit or tour Bamrasnaradura?

(Please tick all those that apply)

- 5a interested in visiting after receiving the package of materials
 - 5b other staff at our facility had visited Bamrasnaradura and found it useful
 - 5c it was recommended to us by other facilities
 - 5d Other – please provide details
-

Question 6

Since 2001 has your facility established or strengthened professional links with Bamrasnaradura Infectious Diseases Hospital?

YES NO

If yes, why did your facility establish/strengthen links with Bamrasnaradura?

(Please tick all those that apply)

- 6a interested in having links after receiving the package of materials
- 6b professional links already existing had been useful to our facility
- 6c it was recommended to us by other facilities

6d Other – please provide details

If yes, with what departments and areas does your facility have professional links with Bamrasnaradura Hospital?

(Please tick all those that apply)

6e medical

6k nursing

6f counselling

6l pharmacy

6g nutrition

6m infection control

6h laboratory

6n research

6i library

6o clinical treatment and care

6j training for staff

6p management and human resources

6q Other – please provide details

Question 7

Has your facility benefited from any of the following:

Receiving the package of materials in 2001 7a	Very much 1	Moderately 2	A little 3	No benefit 4
Sending staff to attend training courses at Bamrasnaradura 7b	Very much 1	Moderately 2	A little 3	No benefit 4
Sending staff to visit or tour Bamrasnaradura 7c	Very much 1	Moderately 2	A little 3	No benefit 4
Establishing or strengthening professional links with Bamrasnaradura 7d	Very much 1	Moderately 2	A little 3	No benefit 4

If yes, to any of the above, what benefits has your facility experienced?

(Please tick all those that apply)

- 7e increased staff understanding about HIV/AIDS issues
 - 7f improved staff knowledge
 - 7g improved staff skills
 - 7h improved staff attitudes towards PLWHA
 - 7i decreased stigma and discrimination towards PLWHA
 - 7j improved referral networks
 - 7k improved patient care for PLWHA
 - 7l Other – please provide details
-

Question 8

Has your facility implemented any of the aspects of care, treatment and support of PLWHA that staff have learned through the Bamrasnaradura Hospital?

YES NO

If yes, what has contributed to the implementation of this learning?

(Please tick all those that apply)

- 8a receiving the package of materials
 - 8b sending staff to attend training courses at Bamrasnaradura
 - 8c sending staff to visit or tour Bamrasnaradura
 - 8d establishing or strengthening professional links with Bamrasnaradura
 - 8e Other – please provide details
-

Appendix 8

PEOPLE INTERVIEWED BY THE IMPACT EVALUATION TEAM

BAMRASNARADURA HOSPITAL

Organizational, administration and operations

Dr Archara Chaovavanich

> Director

Dr Napha Chiraguna

> Assistant Director for Strategy and Planning

Regional Training Centre

Ms Pornladda Boonjunt

> Training Centre Team Leader

Medical Department

Dr Wiroot Mankhatitham

> Head of Medical Department

Counselling Department

Khun Punthip

Khun Somjit

Khun Jaroonsri

Khun Chantana

Khun Aree

Khun Areewan

Nursing Department

Ms Yaowarat Inthong

> Head of Nursing

Khun Kob RN

Khun Peng RN

Ms Tongdee Yonchoho

> Nurse – Academic Centre

Pharmacy

Ms Wilaiwan

Library

Ms Wipawee

Laboratory

Mr Boonchuay

> Microbiology

Ms Sirirat

> Immunology

Ambulatory Care Unit

Dr Somsit

Research

Mr Nopphanath

Ms Supida

Staff Focus Group

Khun Yaowarat

> Director of Nursing

Khun Thanomchit

> Deputy Director of Nursing

Khun Supalak

> RN

Khun Thongdee

> RN

Khun Simakan

> Head Nurse OPD Paediatric

Khun Penpim

> Head Nurse – 3/4 Medical General

Khun Patcharra

> Head Nurse – 7/6 Medical Male/
Female TB

Khun Puthiporn

> Head Nurse – 7/3 Male HIV Adult

Khun Boonchuay

> Laboratory – Microbiology

Khun Sirirat

> Laboratory – Immunology

Khun Kreuwan

> RN

Khun Lamom

> Ambulatory Care

Khun Jaroonsri

> Psychologist

Khun Pattamawadee

> Nurse Counsellor

Khun La-eid

> Head Nurse – 7/4 Female HIV Adult

Khun Pornladda

> Training Centre

MINISTRY OF PUBLIC HEALTH

Dr Sombat Thanprasertsuk

> Director of Bureau of AIDS, TB
and STI

MERCY CENTRE, BANGKOK

Ms Sudaporn Sanckori

PUTTACHINARAS HOSPITAL

Ms Lamoon Somboon

Ms Chuenmanus Jadyangtone

Ms Yubon Junfong

Ms Jittika Sungpanich

Ms Panawan Pliksri

Ms Puntipa Buaboon

Ms Benjawan Thinkreujan

Ms Namkang Yoktri

Ms Supicha Ardkidkarm

Ms Sopa Kongsawat

Dr Narong Lertpianthumma

Dr Somboon Tansuphasawaikul

THATAKO HOSPITAL

Dr Kittisok Sarthuan

> Hospital Director

Ms Supaporn Srichewanen

> Director of Nursing

Ms Somklieng Promtang

Ms Katenipa

Ms Chawewon Romruen

Ms Pisacha Jenjai

Ms Nuanjan Direcwuthikul

Ms Sriwilai Koonatassanadikul

Ms Wanpen Sukejam

Ms Wallapa Weengoen

SAPPASITHIPRASONG HOSPITAL

Ms Kuankeaw Subcheu

Ms Jarin Sirawan

Ms Jureerat Jantamud

Ms Ubon Kammoongkun

Ms Urairat Saehreu

CHAROENKRUNG HOSPITAL

Ms Jirawan Kuwattanachai

Ms Chatchakorn Kulthongket

Ms Ratreer Sangprajak

Ms Prakongsri Hongaromkit

Ms Supanee Japrayoon

BHUMIBOL MILITARY HOSPITAL

2nd Lt Sirirat Siriyananant

2nd Lt Pranee kumka

Flt Lt Prapha Yoosuk

2nd Lt Jiraporn Thanesongtham

2nd Lt Punawadee Jathuphamornsri

Dr Obkaen

Dr Thanasol

Appendix 9

FIELD VISIT AND DATA COLLECTION SCHEDULE

JUNE – AUGUST 2004 PLANNING VISIT

Meetings for preparation and planning

Semi-structured interviews and initial discussions

Organizational, administration and operations

Dr Achara Chaovavanich

> Director

Dr Napha Chiraguna

> Assistant Director for Strategy and Planning

Regional Training Centre

Ms Pornladda Boonjunt

> Training Centre Team Leader

Medical Department

Dr Wiroot Mankhatitham

> Head of Medical Department

Counselling Department

Khun Punthip

Khun Somjit

Khun Jaroonsri

Khun Chantana

Khun Aree

Khun Areewan

Nursing Department

Ms Yaowarat Inthong (Head of Nursing)

Khun Kob (RN)

Khun Peng (RN)

Ms Tongdee Yonchoho (Nurse – Academic Centre)

Training course observations:

‘Pre and post HIV test counselling’
(4 day course)

‘HIV transmission in the health care setting
and standard precautions’ (5 day course)

NOV – DEC 2004 IMPACT EVALUATION TEAM VISIT

Monday 22 November 2004

Team planning

Site visit – Bamrasnaradura Institute
Orientation

Team preparation

Site visit scheduling

Preliminary visits to inpatients &
ambulatory care

Tuesday 23 November 2004

Site visit – Puttachinaras Hospital
Phitsanulok Province
Regional Hospital (1000 beds)

Wednesday 24 November 2004

Site visit – Thatako Hospital
Nakorn Sawan Province
Community Hospital (60 beds)

Thursday 25 November 2004

Site visit – Sappasithiprasong Hospital

Ubon Ratchatani Province

Regional Hospital (1000 beds)

Site visit – STI Clinic – CDC of MoPH

Ubon Ratchatani Province

Site visit – STI Clinic – Primary Care Unit

Ubon Ratchatani Province

Friday 26 November 2004

Site visit – Charoenkrung Pracharak Hospital

Bangkok Province

General Hospital (400 beds)

Site visit – King Bhumibol Adulyadej

Airforce Hospital

Phaholayothin Road, Bangkok, Bangkok

Regional, Military & General Hospital

(700 beds)

Saturday 27 November 2004

Site visit – Wat Prabathnampu

(Thamamruk Foundation)

– Lop Buri Province

Sunday 28 November 2004

Team debriefing and planning

Monday 29 November 2004

Team planning

Briefing with Anusorn Quamman

(interpreter)

Bamrasnaradura Institute

Tuesday 30 November 2004

Site visit – Ministry of Public Health

Site visit – Bamrasnaradura Institute

Site visit – Mercy Centre, Bangkok

Wednesday 1 December 2004

Site visit – Bamrasnaradura Institute

Laboratories

Staff focus group

Thursday 2 December 2004

Site visit – Bamrasnaradura Institute

World AIDS Day activities

HIV wards and related areas

Training Centre, Bamrasnaradura Institute

Friday 3 December 2004

Site visit – Bamrasnaradura Institute

Candle Light for Life Club

Debriefing with Dr Achara Chaovavanich

and Dr Napha Chiraguna

Saturday 4 December 2004

Team debriefing

DEC 2004 – FEB 2005 IMPACT EVALUATION

Data analysis & write-up

Appendix 10

EMAIL SURVEY

Due to time considerations the Team was unable to visit all of the key organizations with links to the Institute. A short email survey was developed to try to glean information about the types and quality of linkages organizations had established with the Institute. The survey was sent to the following contacts and organizations:

EMAIL SURVEY RECIPIENTS	
Organization	Contact Person
Chiang Mai University	Ms Sarunya Chaisang
Chulalongkorn University	Dr Narin Hirunsuthikul
Family Health International	Dr Nigoon Jitthai
HIV>NAT	Dr Chris Duncombe
Mahidol University	Dr Kanuengnit
MSF	Dr David Wilson
Thai Red Cross	Dr Nittaya
UNAIDS	Mr Patrick Brenny
UNICEF	Mr Arjan Dewagt
World Health Organization	Ms Suebsaeng

Six organizations emailed responses to the survey. These were Family Health International (FHI), the HIV Netherlands Australia Thai Research Collaboration (HIV>NAT), Mahidol University, Thai Red Cross, UNAIDS and UNICEF. Responses to the survey questions were as follows:

1. **Since completion of the project in 2001 have you had any kind of links or relationship with the Bamrasnaradura Institute?**

[FHI] – Yes

[HIVNAT] – Yes

[Mahidol Uni.] – Yes

[Thai Red Cross] – No

[UNAIDS] – No

[UNICEF] – No

2. **Please describe the nature of the links or relationship you have had with Bamrasnaradura Institute and provide a brief outline of any collaborative activities.**

[FHI] We have worked with the Institute to modify the existing training curricula for both VCT and HIV Clinical Management and have contracted them to organize the trainings for FHI. This has involved supporting participants from 13 countries in Asia and the Pacific. A few of FHI's staff are also directly involved in conducting the training at the Institute on some sessions that Bamras does not have a great deal of experience in, i.e. BCC, planing for continuum of care strategy etc.

We also support Bamras's activities that are not under contract with FHI – e.g. we provide our staff time to conduct some training sessions that the Institute organizes on a yearly basis as the WHO's Collaborating Centre.

[HIVNAT] Bamrasnaradura Institute is a clinical trial site for HIV-NAT studies. HIV-NAT conducts twice yearly training for physicians from China sponsored by the NIH. Field visits are conducted to Bamrasnaradura Institute as part of the physician training. Bamrasnaradura Institute is the Training Centre for WHO South East Asia Regional Office (SEARO). HIV-NAT collaborates with Bamrasnaradura Institute in the training courses.

[Mahidol Uni.] The Joint WHO C.C. for Nursing and Midwifery Development at Mahidol University, in collaboration with Bamrasnaradura Institute and other two schools of nursing in Thailand, have developed a 12-week training program on nursing and midwifery management of HIV/AIDS prevention, care and support under some technical and financial support from WHO/SEARO. This program will be offered twice a year during 21 February-13 May, and 1 August-21 October 2005. In addition, a number of collaborative research projects on HIV/AIDS prevention and care have been conducted. The work is in progress.

3. Please indicate two strengths or benefits of the links your service has had with the Bamrasnaradura Institute.

[FHI] Bamras has a great facility for lectures, bed-side study, field visits, etc. They also have experienced staff and are a good resource for the region.

[HIVNAT] Bamrasnaradura Institute is a member of HIV-NAT's clinical trials network in Thailand. Bamrasnaradura Institute is a training centre for HIV-NAT's regional physicians' training course.

[Mahidol Uni.] It has provided a great opportunity for nurses, in education and service provision, to share knowledge and experiences in nursing management of HIV/AIDS prevention and care in health care settings. A continuation of such collaboration among these two institutions will lead to creating further activities which will be of benefit for improving quality of nursing care which will ultimately improve quality of life of PLWHA, their families and communities.

4. Please indicate two weaknesses or difficulties of the links your service has had with the Bamrasnaradura Institute.

[FHI] We do not always get appropriate trainers (both in terms of technical knowledge and English proficiency) from Bamras side which makes the training less effective – especially when many of participants may not speak English proficiently, it can make things more complicated. The training contents and materials are not always relevant, as it seems that they use one set of contents/materials for all trainings.

[HIVNAT] Staff has many commitments.

[Mahidol Uni.] There are no real weaknesses, however, there were some difficulties with arranging meetings as members of both organizations are very busy with their own work. During the past 18 months most of these meetings have had to be scheduled for the weekend.

5. Please provide any ideas or suggestions for improving current links and strengthening a relationship between your organization and the Bamrasnaradura Institute.

[FHI] All mentioned under Q4 plus other tailored made trainings. We need to keep in mind that Thailand's medical technology is quite advanced as compared to other countries in the region. The participants are not always able to implement what they learned in Thailand in their settings and we need to look more at the minimum requirements of care and treatment or alternative approaches.

[HIVNAT] Bamrasnaradura Institute is a major centre for care and treatment in Thailand. It has the capacity to conduct clinical trials and to facilitate local and regional training. Expansion of these two areas of expertise would be of benefit to HIV-NAT.

[Mahidol Uni.] Formal networking should be established. Some collaborative activities should be planned in advance. Financial and technical support are issues of concerns in making our collaborative work successful.

[THAI RED CROSS] If Bamrasnaradura Institute could have a list of contact persons in each field of research interests or have a real research unit manager who is also good at public relations, it would be great for long-term collaboration with other organizations.

[UNAIDS] We would be pleased to meet with the program officers and discuss ways in which UNAIDS might be of help or service to the work being done by the Bamrasnaradura Institute. They can contact us at the above address if this would prove useful for them.

[UNICEF] I did also consult my colleague here in the regional office and we have not worked much with the Bamrasnaradura Institute during the recent years. As I am not familiar with the Institute I cannot give any further suggestions.

Appendix 11

POLICY AND PROCEDURE DOCUMENTS SIGHTED

Name of Policy	Department/Unit
> The Policy of Quality	General/ hospital wide
> Quality Plan	By section/department
> Work Instruction	By section/department
> Guideline for nursing and care of any Diseases	Nursing
> Employee welfare	Human Resources
> Infectious Control Protocol	Infection Control
> Hand-washing policy	General/ hospital wide
> Universal precaution	General/ hospital wide
> Prevention of fire	General/ hospital wide
> Occupational exposures	General/ hospital wide
Surveillance for Nosocomial Infections in Patients. SOPs include:	
> How to fill in nosocomial infection surveillance forms	General/ hospital wide
Prevention of (nosocomial) infections in the hospital. SOPs include:	
> Prevention of infections related to wheelchairs and stretchers	General/ hospital wide
> Prevention of infections related to the dead body	Inpatients/ AB care
> Prevention of infections for Ophthalmologists and nurses	General/ hospital wide
> How to use preventive barriers (to protect the body)	General/ hospital wide
> Prevention of the transmission through direct contacts	General/ hospital wide
> Prevention of the transmission in order to protect patients who have deficient immune	General/ hospital wide
> Preventing the transmission through cough and sneezing	General/ hospital wide
> Preventing airborne transmission	General/ hospital wide
> Preventing the transmission of drug-resistant micro-organisms	General/ hospital wide
> Prevention of nosocomial infections caused by retaining urinary catheter or by occasional urinary catheterization	General/ hospital wide
> Preventing the infection of perineal wound	Obs/gynae/labour ward
> Preventing eye infections in the newborns	Obs/gynae/labour ward
> Preventing umbilical infections in the newborns	Obs/gynae/labour ward

Name of Policy	Department/Unit
> Preventive methods to be used in food preparation	Food services
> How to use disinfectants to prevent infections	General/ hospital wide
> How to maintain equipment in sterile condition	General/ hospital wide
> Prevention of respiratory infections	General/ hospital wide
> Prevention of infection through IV fluid infusion	General/ hospital wide
Investigation and Control of an outbreak (no SOPs)	Infection control nurses
Surveillance of Infections in Personnel. SOPs include:	General/ hospital wide
> (Annual) health check-up of personnel	
> Procedural steps for performing a tuberculin test	
> TB surveillance for personnel	
> Hepatitis surveillance for personnel	
> Guide on what to do when a personnel has an occupational accident	
How to Monitor the Environment Management System. SOPs include:	
> Taking a surveillance on the sources of clean water supply	General/ hospital wide
> Taking a surveillance on waste water after being treated and a surveillance on air pollution	General/ hospital wide
> Vector control (rats)	General/ hospital wide
> How to collect garbage	General/ hospital wide
> How to collect stained / dirty linens	General/ hospital wide
Operative Care. SOPs include:	Surgery/nursing
> Receiving a notification on a case for surgery	
> How to arrange an operating room and arrange an order of cases for the operations	
> How to receive and transfer a patient in the operating room	
> Functions to be undertaken by a circulating nurse before an operation	
> Functions to be undertaken by a scrub nurse before an operation	
> How to work together within a surgical team	
> Checking and counting the number of equipment and materials used in the operation	
> How to record nurses' note in the operating room	

Name of Policy	Department/Unit
> Functions of a circulating nurse during an operation	
> Functions of a nurse who helps at outside area (around the OR) after an operation	
> How to prepare and clean instruments before sending to central sterile supply unit	
> How to collect specimens in the operating room and send them for pathological studies	
How to give anaesthesia. SOPs include:	Anaesthetics/nursing
> How to give general anaesthesia	
> How to give regional anaesthesia	
> How to give anaesthesia intravenously	
> Assessment of and what to do for a difficult respiratory intubation inside the operating room	
> How to receive a newborn whose mother gives birth through a Caesarean section	
> Pre-operative and post-operative care for patients inside the recover room	
> Intervention visit to a patient before s/he receiving an anaesthesia	
> How to transport (or transfer) the newborn of a mother who comes for Caesarean section	
> How to give anaesthesia to HIV infected patients	
> How to transfer a patient back to the ward after an operation	
> How to take care of a patient who receive an aesthetic block at spinal cord	
How to take care of a patient in ICU. SOPs include:	ICU/nursing
> How to prepare a unit and admit a new patient	
> How to meet with relatives when admitting a new patient	
> Administration of drugs and medical supplies for patients	
> How to send specimens (or a patient) for a laboratory investigation	
> How to send a patient for an X-ray investigation	
> How to send a patient? for a special investigation	
> How to discharge a patient	
> How to clean a patient's unit	
> Basic CPR procedures	General/ hospital wide

Name of Policy	Department/Unit
Examination Room in Clinic for Patients under Health Care Plan of Social Security Fund. SOPs include:	
> Use QP-OPM-01 of General Medicine OPD (OPD-MED), which comprised nine work instructions.	
How to provide services to clients in General Medicine Outpatient Department. SOPs include:	General medicine / outpatients/nursing
> Nursing care prior to the examination	
> Nursing care during the examination	
> Nursing care after the examination	
> Providing examination services for patients under the health care plan of social security fund	
> Providing services to patients in TB clinic	
> Providing examination services in Dermatology Clinic	
> Providing services for patients in ARV Clinic	
> How to provide services for patients who come for annual health check up	
> How to use computer software program of the OPD	
How to admit a patient. SOPs include:	IPD/nursing
> IPD Drug Administration	
> Preparation and storage of non-drug supplies	
> Guideline about cleanness inside the wards	
> Classifying ages of patients	
> How to make the bed for admitting a patient	
> How to transfer a patient	
> Classifying the severity of diseases	
> Giving an orientation to a patient	
> Asset depository for hospitalized patients	
> How to arrange an order of in-patients' medical records	
In-patient Care. SOPs include:	IPD/nursing
> How to notify/report a doctor	
> How to take doctors' orders	
> How to hand over and receive working shift	
> Management and control of foods and drinking water for in-patients	
> Collecting laboratory specimens	
> Handling specimens to and obtaining test results from the laboratory	

Name of Policy	Department/Unit
> Procedure to be taken before sending blood test for HIV	
Discharging a patient	IPD/nursing
> How to keep medical records of discharged patients	
> Guide on how to prepare medical instruments and equipment for sending for cleaning	
How to provide services for a patient who suffers a severe communicable disease (no SOPs)	IPD/nursing

IMPACT EVALUATION OF THE THAILAND-AUSTRALIA HIV/AIDS AMBULATORY CARE PROJECT

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The Thailand-Australia HIV/AIDS Ambulatory Care Project (TAACP) was implemented between 1997 and 2001. The aim of the project was to assist Thailand's premiere infectious diseases hospital, the Bamrasnaradura Hospital, to develop its HIV/AIDS services and to provide education and training for clinical staff at the Hospital and beyond. An external evaluation of the Project was undertaken by AusAID in the final stages of the Project which reported on the immediate outcomes.

The purpose of the present study was to revisit the Bamrasnaradura Institute⁴ four years after the project was completed to assess whether it had delivered long term benefits for the Thai people.

⁴ As part of Government reforms under Department of Diseases Control, Ministry of Public Health, the Hospital's vision and mission were re-written in 2002 with a greater emphasis on research and training. To reflect these changes the Bamrasnaradura Infectious Diseases Hospital was renamed the Bamrasnaradura Institute.